Virgil PERCEC: REFEREED PUBLICATIONS
May 8, 2018

1. C. I. Simionescu, S. Dumitrescu and V. Percec. "Etude de la Polymérisation des Derivés Acétylèniques. XIII-eme Note. Synthesès et Propriétés du Polyphénylthioacétylène." *Makromol. Chem.*, **150**, 95-103 (1971).

2. C. I. Simionescu, S. Dumitriu, V. Percec and S. Dumitrescu. "The Polymerization of Acetylenic Derivatives. XXIII. On the Cellulose Derivative Reactions with Acetylene Polymers." *Cell. Chem. Technol.*, **7**, 283-292 (1973).

3. C. I. Simionescu and S. Dumitrescu and V. Percec. "Polymerization of Acetylenic Derivatives. XVIII. Structural and Electrophysical Characteristics of Poly(p-nitrophenylacetylene) Obtained by Polymer Analogous Reactions." *Plaste Kautch.*, **20**, 913-916 (1973).

4. C. I. Simionescu, S. Dumitrescu, V. Percec, I. Negulescu and I. Diaconu. "On the Polymerization of Acetylenic Derivatives. XIX. Synthesis of Poly(α-ethynyl naphthalene) and its Electrophysical Properties." *J. Polym. Sci., Symposia*, **42**, 201-216 (1973).

5. C. I. Simionescu, S. Dumitrescu, S. Vasiliu and V. Percec. "Recherches sur la Polymerisation des Derives Acetyleniques. XVI. Etude Thermique des Polymere Acetyleniques." *J. Thermal Analysis*, **6**, 389-399 (1974).

6. C. I. Simionescu, S. Dumitrescu, I. Negulescu, V. Percec, M. Grigoras, I. Diaconu, M. Leanca and L. Goras. "Studies of Polymers Based on Aromatic Acetylene Derivatives." *Vysokomol. Soedin.*, **A16**, 790-803 (1974).

7. C. I. Simionescu, S. Dumitrescu, I. Negulescu, V. Percec, M. Grigoras, I. Diaconu, M. Leanca and L. Goras. "Studies of Polymers Based on Aromatic Acetylene Derivatives." *Polym. Sci. USSR*, **A16**, 911-924 (1974).

8. C. I. Simionescu, S. Dumitrescu and V. Percec. "The Polymerization of Acetylenic Derivatives. XXV. Synthesis and Properties of Isomeric Poly(β-ethynylnaphthalene)." *Polym. J. (Japan)*, **8**, 139-149 (1976).

9. C. I. Simionescu, S. Dumitrescu and V. Percec. "On the Polymerization of Acetylenic Derivatives. XXIV. Some Structural Peculiarities of Poly(α-ethynylnaphthalene)." *Polym. J. (Japan)*, **8**, 313-317 (1976).

10. C. I. Simionescu, S. Dumitrescu, V. Percec and M. Grigoras. "On the Polymerization of Acetylenic Derivatives. XXXII. Heats of *Cis-Trans* Isomerization of Polyacetylene Isomers." *Rev. Roum. Chim.*, **22**, 1105-1109 (1977).

11. C. I. Simionescu, V. Percec and S. Dumitrescu. "Polymerization of Acetylenic Derivatives. XXX. Isomers of Polyphenylacetylene." *J. Polym. Sci.: Polym. Chem. Ed.*, **15**, 2497-2509 (1977).

12. S. Dumitrescu, V. Percec and C. I. Simionescu. "Polymerization of Acetylenic Derivatives. XXVII. Synthesis and Properties of Isomeric Poly-*N*-ethynylcarbazole." *J. Polym. Sci.: Polym. Chem. Ed.*, **15**, 2893-2907 (1977).

13. S. Dumitrescu, V. Percec and C. I. Simionescu. "On the Polymerization of Acetylenic Derivatives. XXXI. Electron Spin Resonance of Polyarylacetylene Isomers." *Rev. Roum. Chim.*, **23**, 1303-1311 (1978).

14. C. I. Simionescu, Sv. Dumitrescu and V. Percec. "Semiconducting Biopolymers and their Part in Biochemical Phenomena " in *Topics in Bioenergetics and Bioelectrochemistry*, G. Milazzo Ed., Vol. II, Wiley, New York, 151-204 (1978).

15. C. I. Simionescu, S. Dumitrescu, V. Percec and I. Diaconu. "TCNQ Anion Radical Like Salts of Poly(Vinyl- and Ethynyl Pyridine)s." *Materiale Plastice (Bucharest)*, **15**, 69-74 (1978).

16. C. I. Simionescu, S. Dumitrescu and V. Percec. "Isomeric Copolymers of Acetylenes." *J. Polym. Sci. Polym. Symposia*, **64**, 209-227 (1978).

17. V. Percec, G. Ioanid, S. Dumitrescu and C. I. Simionescu. "Studium der Polymerisation von Azetylenderivaten. XXXII. Elektrische Eigenschaften von Isomeren der Polyarylacetylene." *Plaste Kautsch.*, **25**, 222-223 (1978).

18. C. I. Simionescu, S. Dumitrescu, M. Grigoras and V. Percec. "Synthesis and Polymerization of Aromatic Groups Containing Propiolic Esters." *J. Polym. Sci.: Polym. Lett. Ed.*, **17**, 287-292 (1979).

19. C. I. Simionescu and V. Percec. "Polypentadeuterophenylacetylene Isomers." *J. Polym. Sci.: Polym. Lett. Ed.*, **17**, 421-429 (1979).

20. C. I. Simionescu and V. Percec. "New Carbazole-Containing Monomers and Polymers." *J. Polym. Sci.: Polym. Chem. Ed.*, **17**, 2287-2297 (1979).

21. C. I. Simionescu and V. Percec. "Charge Transfer Complexes of N-Ethylcarbazole, Poly-(N-Vinylcarbazole) and their 3,6-Dihalogenated Derivatives." *Rev. Roumaine Chim.*, **24**, 171-182 (1979).

22. C. I. Simionescu, V. Percec and G. Ioanid. "Photoconductivity Properties of Charge Transfer Complexes of Poly(3,6-Dihalogeno-N-Vinylcarbazoles) with 2,4,7-Trinitro-9-Fluorenone." *Rev. Roum. Chim.*, **24**, 1077-1082 (1979).

23. C. I. Simionescu and V. Percec. "New Fluorene Containing Monomers and Polymers." *Polym. Bull.*, **2**, 51-56 (1980).

24. C. I. Simionescu, V. Percec and A. Natansohn. "Intramolecular Charge Transfer Complexes. 2. Poly(2-Naphthyl Methacrylate-co-Picryl Methacrylate)." *Polym. Bull.*, **2**, 57-61 (1980).

25. V. Percec, A. Natansohn and C. I. Simionescu. "A Critical Reevaluation of Reactivity Ratio Data in Radical Copolymerization of Acetylene Monomers." *Polym. Bull.*, **2**, 63-69 (1980).

26. C. I. Simionescu and V. Percec. "New 3,6-Dihalogencarbazole-Containing Monomers and Polymers." *Polym. Bull.*, **2**, 427-434 (1980).

27. C. I. Simionescu, V. Percec and A. Natansohn. "Intramolecular Charge Transfer Complexes. 5. Poly[N-(2-Hydroxyethyl) Carbazolyl Methacrylate-co-2,4-Dinitrophenyl Methacrylate]." *Polym. Bull.*, **2**, 435-439 (1980).

28. C. I. Simionescu, V. Percec and A. Natansohn. "Intramolecular Charge Transfer Complexes. 6. Temperature Influence on the Copolymerization of N-(2- Hydroxyethyl) Carbazolyl Methacrylate with Picryl Methacrylate." *Polym. Bull.*, **2**, 441-447 (1980).

29. F. Denes, V. Percec, M. Totolin and J. P. Kennedy. "Cationic Grafting from Plasma-Modified Polymer Surfaces. 2. Preliminary Investigations with Polypropylene Fibers." *Polym. Bull.*, **2**, 499-504 (1980).

30. V. Percec, A. Natansohn, V. Barboiu, B. C. Simionescu and D. Galea. "Intramolecular Charge Transfer Complexes. 7. Radical Copolymers of 2,4-Dinitrophenyl Methacrylate with N-(2-Hydroxyethyl)-3,6-Dichlorocarbazolyl Acrylate and Methacrylate." *Polym. Bull.*, **2**, 505-511 (1980).

31. C. I. Simionescu and V. Percec. "Thermal Cis-Trans Isomerization of *Cis-Transoidal* Polyphenylacetylene." *J. Polym. Sci.: Polym. Chem. Ed.*, **18**, 147-155 (1980).

32. C. I. Simionescu and V. Percec. "Polyarylacetylenes: Structure and Properties." *J. Polym. Sci. Polym. Symp.* **67**, 43-71 (1980).

33. C. I. Simionescu and V. Percec. "Bioelectrochemistry and Bioenergetics. An Interdisciplinary Survey. 6. Semiconduction Theory." G. Milazzo, Coordinator. *Experientia*, **36**, 1264-1267 (1980).

34. C. I. Simionescu, V. Percec and A. Natansohn. "Intramolecular Charge Transfer Complexes. 1. Poly[*N*-(2-hydroxyethyl)carbazolyl Methacrylate-co-Picryl Methacrylate]." *Polymer*, **21**, 417-422 (1980).

35. C. I. Simionescu, V. Percec and A. Natansohn. "Intramolecular Charge Transfer Complexes. 9. Radical Copolymers of 2,4-Dinitrophenyl Acrylate with N-(2- Hydroxyethyl)Carbazolyl Acrylate and Methacrylate." *Polym. Bull.*, **3**, 529-533 (1980).

36. C. I. Simionescu, V. Percec and A. Natansohn. "Intramolecular Charge Transfer Complexes. 10. Radical Copolymers of Methacryloyl β-Hydroxyethyl-3,5-Dinitrobenzoate with N-(2-hydroxyethyl)Carbazolyl Acrylate and Methacrylate." *Polym. Bull.*, **3**, 535-542 (1980).

37. C. I. Simionescu, A. Natansohn and V. Percec. "Intramolecular Charge Transfer Complexes. 11. Configuration of Methacryloyl β-Hydroxyethyl-3,5-Dinitrobenzoate Copolymers with N-(2-Hydroxyethyl) Carbazolyl Acrylate and Methacrylate." *Polym. Bull.*, **3**, 543-549 (1980).

38. C. I. Simionescu, V. Percec and A. Natansohn. "Intramolecular Charge Transfer Complexes. 12. Poly[N-(2-Hydroxyethyl)Carbazolyl Acrylate-co-2'-Ethyl-Acryl-4,5,7-Trinitro-9-Fluorenone-2-Carboxylate]." *Polym. Bull.*, **3**, 551-557 (1980).

39. A. Natansohn, D. Gâlea, V. Percec and C. I. Simionescu. "Intramolecular Charge Transfer Complexes. 3. Another Approach to the Charge Transfer Copolymerization Model." *J. Macromol. Sci.-Chem.*, **A15**, 393-404 (1981).

40. V. Percec, A. Natansohn and C. I. Simionescu. "Intramolecular Charge Transfer Complexes. 4. Poly[N-2-hydroxyethyl)carbazolyl Acrylate-co-Picryl Methacrylate]." *J. Macromol. Sci.-Chem.*, **A15**, 405-415 (1981).

41. V. Percec, A. Natansohn and C. I. Simionescu. "Intramolecular Charge Transfer Complexes. 13. Copolymers of Acryloyl-(β-hydroxyethyl)-3,5-dinitrobenzoate with N-(2-hydroxyethyl)carbazolyl Acrylate and Methacrylate." *Polym. Bull.*, **4**, 247-253 (1981).

42. V. Percec, A. Natansohn and C. I. Simionescu. "Intramolecular Charge Transfer Complexes. 14. Copolymers of N-ethyl-3-hydroxymethyl Carbazolyl Methacrylate with Acryloyl and Methacryloyl-β-hydroxyethyl-3,5-dinitrobenzoate." *Polym. Bull.*, **4**, 255-259 (1981).

43. C. I. Simionescu, V. Percec and A. Natansohn. "Intramolecular Charge Transfer Complexes. 15. Copolymers of N-(2-hydroxyethyl)Carbazolyl Methacrylate with 2'-ethylacryl- and 2'-Ethylmethacryl-4,5,7-Trinitro-9-Fluorenon-2-Carboxylate." *Polym. Bull.*, **4**, 623-628 (1981).

44. V. Percec, A. Natansohn and C. I. Simionescu. "Intramolecular Charge Transfer Complexes. 17. Evidence for Complex Participation in Copolymerization of N-(2-hydroxyethyl)Carbazolyl Metharylate with Methacryloyl-β-hydroxyethyl-3,5-dinitrobenzoate." *Polym. Bull.*, **5**, 217-223 (1981).

45. V. Percec, A. Natansohn and C. I. Simionescu. "Intramolecular Charge Transfer Complexes. 18. Solvent Influence in Copolymerization of N-(2-Hydroxyethyl)Carbazolyl Methacrylate with Methacryloyl-β-hydroxyethyl-3,5-dinitrobenzoate." *Polym. Bull.,* **5**, 225-231 (1981).

46. V. Percec, D. C. Tocaciu, E. Man and C. I. Simionescu. "New Phenothiazine-containing Monomers and Polymers." *Polym. Bull.*, **5**, 233-238 (1981).

47. V. Percec, A. Natansohn and C. I. Simionescu. "Intramolecular Charge Transfer Complexes. 19. Copolymers Having as Acceptor Structural Units 3,5-dinitrobenzoic Acid Derivatives with Different Distances from the Main Chain." *Polym. Bull.*, **5**, 239-245 (1981).

48. V. Percec, A. Natansohn, D. C. Tocaciu and C. I. Simionescu. "Intramolecular Charge Transfer Complexes. 20. Copolymers of Acryloyl and Methacryloyl-2'-hydroxyethyl-2-(N-phenothiazinyl)Propionate with Methacryloyl-2'-hydroxyethyl-3,5-dinitrobenzoate." *Polym Bull.*, **5**, 247-253 (1981).

49. C. I. Simionescu, A. Natansohn and V. Percec. "Phenylacetylene-Methyl Methacrylate Radical Copolymers." *J. Macromol. Sci.-Chem.*, **A15**, 643-657 (1981).

50. C. I. Simionescu, A. Natansohn and V. Percec. "Phenylacetylene-Methyl Acrylate Radical Copolymers." *J. Macromol. Sci.-Chem.*, **A15**, 659-669 (1981).

51. C. I. Simionescu, A. Natansohn and V. Percec. "Configuration of Methyl Methacrylate-2-Naphthyl Methacrylate Copolymers." *Colloid & Polym. Sci.*, **259**, 697-700 (1981).

52. C. I. Simionescu, S. Dumitrescu, V. Percec and M. Grigoras. "On the Polymerization of Acetylenic Derivatives. XXXVII. *Cis-Trans* Isomerization of Polyarylacetylenes through their Cyclic Halonium Ions." *Eur. Polym. J.*, **17**, 689-693 (1981).

53. V. Percec. "Synthesis of ABA Triblock Copolymers Containing Electrono-Donor or Electrono-Acceptor Pendant Groups in A Blocks." *Polym. Bull.*, **5**, 643-649 (1981).

54. V. Percec. "Synthesis and Polymerization of 2-(β-N-Carbazolylethyl)-2-Oxazoline and 2-(3,5-Dinitrophenyl)-2-Oxazoline." *Polym. Bull.*, **5**, 651-657 (1981).

55. V. Percec. "New 3-Halogencarbazole-Containing Monomers and Polymers." *Polym. Bull.*, **5**, 659-665 (1981).

56. C. I. Simionescu, V. Percec and A. Natansohn. "Intramolecular Charge Transfer Complexes. 16. Copolymers of *N,N*-dimethyl-*p*-aminobenzyl Methacrylate with Acryloyl- and Methacryloyl-β-hydroxyethyl-3,5-dinitrobenzoate." *J. Polym. Sci.: Polym. Chem. Ed.*, **20**, 63-71 (1982).

57. C. I. Simionescu, V. Percec and A. Natansohn. "Intramolecular Charge Transfer Complexes. 8. Poly[*N*-(2-Hydroxyethyl) Carbazolyl Acrylate-co-2,4-Dinitrophenyl Methacrylate]." *J. Polym. Sci.: Polym. Chem. Ed.*, **20**, 655-661 (1982).

58. C. I. Simionescu and V. Percec. "Progress in Polyacetylene Chemistry." *Progr. Polym. Sci.* **8**, 133-214 (1982).

59. H. A. Schneider, H.-J. Cantow and V. Percec. "Donor-Acceptor Complexation in Macromolecular Systems. 1. Viscoelastic Properties of Poly-Donor - Poly-Acceptor Blends and of Corresponding Copolymers." *Polym. Bull.*, **6**, 617-621 (1982).

60. V. Percec, S. C. Guhaniyogi, J. P. Kennedy and B. Ivan. "New Telechelic Polymers and Sequential Copolymers by Polyfunctional *Ini*tiator-Trans*fer* Agents (Inifers). 22. Synthesis and Characterization of Linear and Three-Arm Star Block Copolymers of Isobutylene and N-Acetylethyleneimine." *Polym. Bull.*, **8**, 25-32 (1982).

61. V. Percec, S. C. Guhaniyogi and J. P. Kennedy. "New Telechelic Polymers and Sequential Copolymers by Polyfunctional *Ini*tiator-Trans*fer* Agents (Inifers). 23. Interactions between Alcohol-Telechelic and Three Arm Star Polyisobutylenes and Pyromellitic Dianhydride." *Polym. Bull.*, **8**, 319-324 (1982).

62. V. Percec, S. C. Guhaniyogi and J. P. Kennedy. "New Telechelic Polymers and Sequential Copolymers by Polyfunctional *Ini*tiator-Trans*fer* Agents (Inifers). 25. Synthesis and Characterization of α,ω-Di(Allyl) Polyisobutylene." *Polym. Bull.*, **8**, 551-555 (1982).

63. J. P. Kennedy, S. C. Guhaniyogi and V. Percec. "New Telechelic Polymers and Sequential Copolymers by Polyfunctional *Ini*tiator-Trans*fer* Agents (Inifers). 27. Bisphenol- and Trisphenol-Polyisobutylenes." *Polym. Bull.*, **8**, 563-570 (1982).

64. J. P. Kennedy, S. C. Guhaniyogi and V. Percec. "New Telechelic Polymers and Sequential Copolymers by Polyfunctional *Ini*tiator-Trans*fer* Agents (Inifers). 28. Glycidyl Ethers of Bisphenol- and Trisphenol-PIB and Their Curing to Epoxy Resins." *Polym. Bull.*, **8**, 571-578 (1982).

65. V. Percec, S. C. Guhaniyogi and J. P. Kennedy. "New Telechelic Polymers and Sequential Copolymers by Polyfunctional *Ini*tiator-Trans*fer* Agents (Inifers). 29. Synthesis of α,ω-Di(Amino)Polyisobutylenes." *Polym. Bull.*, **9**, 27-32 (1983).

66. V. Percec and P. Rinaldi. "A ^{13}C-NMR Study of the Microstructure of Polyphenylacetylenes Prepared with $MoCl_5$ and WCl_6." *Polym. Bull.*, **9**, 548-555 (1983).

67. V. Percec, S. C. Guhaniyogi and J. P. Kennedy. "New Telechelic Polymers and Sequential Copolymers By Polyfunctional *Ini*tiator-Trans*fer* Agents (Inifers). 35. Synthesis and Characterization of α,ω-Di(Ethynyl)Polyisobutylenes." *Polym. Bull.*, **9**, 570-576 (1983).

68. V. Percec and P. L. Rinaldi. "^{13}C-NMR Studies of Thermally Isomerized Polyphenylacetylenes Prepared with $MoCl_5$ and WCl_6 Catalysts." *Polym. Bull.*, **9**, 582-587 (1983).

69. V. Percec. "Microstructure of Polyphenylacetylene Obtained by $MoCl_5$ and WCl_6 Type Catalysts." *Polym. Bull.*, **10**, 1-7 (1983).

70. V. Percec and J. P. Kennedy. "New Telechelic Polymers and Sequential Copolymers by Polyfunctional *Ini*tiator-Trans*fer* Agents (Inifers). 36. Synthesis and Characterization of Various Nitrile-Telechelic Polyisobutylenes." *Polym. Bull.*, **10**, 31-38 (1983).

71. V. Percec, P. L. Rinaldi and B. C. Auman. "Comb-Like Polymers and Graft Copolymers from Macromers. 1. Synthesis and Characterization of Methacrylate and Styrene Macromers of Aromatic Polyether Sulfones." *Polym. Bull.*, **10**, 215-222 (1983).

72. V. Percec and P. L. Rinaldi. "Functional Polymers and Sequential Copolymers by Phase Transfer Catalysis. 4. A New and Convenient Synthesis of *p*- and *m*-Hydroxymethylphenylacetylene." *Polym. Bull.*, **10**, 223-230 (1983).

73. V. Percec and B. B. Auman. "Functional Polymers and Sequential Copolymers by Phase Transfer Catalysis. 5. Synthesis and Characterization of Polyformals of Aromatic Polyether Sulfones." *Polym. Bull.*, **10**, 385-390 (1983).

74. V. Percec, B. C. Auman and P. L. Rinaldi. "Functional Polymers and Sequential Copolymers by Phase Transfer Catalysis. 6. On The Phase Transfer Catalyzed Williamson Polyetherification as a New Method for the Preparation of Alternating Block Copolymers." *Polym. Bull.*, **10**, 391-396 (1983).

75. V. Percec, P. L. Rinaldi and B. C. Auman. "Comb-Like Polymers and Graft Copolymers from Macromers. 2. Synthesis, Characterization and Homopolymerization of a Styrene Macromer of Poly(2,6-Dimethyl-1,4-Phenylene Oxide)." *Polym. Bull.*, **10**, 397-403 (1983).

76. V. Percec and B. C. Auman. "Functional Polymers and Sequential Copolymers by Phase Transfer Catalysis. 1. Alternating Block Copolymers of Unsaturated Polyethers and Aromatic Poly(ether sulfone)s." *Makromol. Chem.*, **185**, 617-627 (1984).

77. V. Percec and B. C. Auman. "Functional Polymers and Sequential Copolymers by Phase Transfer Catalysis. 2. Synthesis and Characterization of Aromatic Poly(ether sulfone)s Containing Vinylbenzyl and Ethynylbenzyl Chain Ends." *Makromol. Chem.*, **185**, 1867-1880 (1984).

78. V. Percec and B. C. Auman. "Functional Polymers and Sequential Copolymers by Phase Transfer Catalysis. 3. Synthesis and Characterization of Aromatic Poly(ether sulfone)s and Poly(oxy-2,6-dimethyl-1,4-phenylene) Containing Pendant Vinyl Groups." *Makromol. Chem.*, **185**, 2319-2336 (1984).

79. V. Percec. "Microstructure of Polyphenylacetylene and Other Acetylenic Polymers." *Mol. Cryst. Liq. Cryst.*, **106**, 409 (1984).

80. V. Percec. "Some New Sequential Copolymers by Cationic Ring Opening Polymerization" in *Cationic Polymerization and Related Processes*, E. J. Goethals, Ed., Academic: New York, 347-353 (1984).

81. V. Percec, H. Nava and B. C. Auman. "Functional Polymers and Sequential Copolymers by Phase Transfer Catalysis. VII. Synthesis and Characterization of Alternating Block Copolymers of Aromatic Poly(ether sulfone)s with Aliphatic Polysulfides and Aliphatic Polysulfones." *Polym. J. (Japan)*, **16**, 681-691 (1984).

82. V. Percec and H. Nava. "Functional Polymers and Sequential Copolymers by Phase Transfer Catalysis. 8. Synthesis of Poly(2,6-dimethyl-1,4-phenylene oxide)/Aromatic Poly(ether sulfone)/Poly(2,6-dimethyl-1,4-phenylene oxide) Triblock Copolymers." *Makromol. Chem. Rapid Commun.*, **5**, 319-326 (1984).

83. V. Percec, H. Nava and J. M. Rodriguez-Parada. "Functional Polymers and Sequential Copolymers by Phase Transfer Catalysis. 9. Synthesis and Characterization of α,ω-Di[2-(*p*-Phenoxy)-2-Oxazoline] Oligomers." *J. Polym. Sci.: Polym. Lett. Ed.*, **22**, 523-532 (1984).

84. V. Percec, T. D. Shaffer and H. Nava. "Functional Polymers and Sequential Copolymers by Phase Transfer Catalysis. 10. Polyethers of Mesogenic Bisphenols: A New Class of Main- Chain Liquid Crystalline Polymers." *J. Polym. Sci.: Polym. Lett. Ed.*, **22**, 637-647 (1984).

85. V. Percec and B. C. Auman. "Functional Polymers and Sequential Copolymers by Phase Transfer Catalysis. 11. Synthesis of α,ω-Di(chloroallyl)- and α,ω-Di(bromobenzyl) Aromatic Polyether Sulfones." *Polym. Bull.*, **12**, 253-260 (1984).

86. V. Percec, H. Nava and J. M. Rodriguez-Parada. "Functional Polymers and Sequential Copolymers by Phase Transfer Catalysis. 12. Functional Polymers Containing 2-(p-phenoxy)-2-oxazoline Pendant Groups." *Polym. Bull.*, **12**, 261-268 (1984).

87. V. Percec. "Recent Developments in Cationic Polymerization" in *Applied Polymer Science*, 2nd Ed., R. W. Tess and G. W. Pochlein Eds., *ACS Symposium Series 285*, American Chemical Society: Washington, DC, 95-130 (1985).

88. T. D. Shaffer and V. Percec. "Functional Polymers and Sequential Copolymers by Phase Transfer Catalysis. 13. Thermotropic Copolyethers of 4,4'-Dihydroxy-α-methylstilbene and α,ω-dibromoalkanes." *Makromol. Chem. Rapid Commun.*, **6**, 97-104 (1985).

89. T. D. Shaffer and V. Percec. "Functional Polymers and Sequential Copolymers by Phase Transfer Catalysis. 14. Thermotropic Polyethers and Copolyethers Based on 4,4'-Dihydroxybiphenyl." *J. Polym. Sci.: Polym. Lett. Ed.*, **23**, 185-194 (1985).

90. T. D. Shaffer, M. Jamaludin and V. Percec. "Functional Polymers and Sequential Copolymers by Phase Transfer Catalysis. 15. Thermotropic Copolyethers Based on 4,4'-Dihydroxybiphenyl, Bisphenol-A and 1,9-Dibromononane." *J. Polym. Sci.: Polym. Chem. Ed.*, **23**, 2913-2930 (1985).

91. V. Percec and B. C. Auman. "Polyaromatics with Terminal or Pendant Styrene Groups. A New Class of Thermally Reactive Oligomers" in *Reactive Oligomers*, F. W. Harris and H. J. Spinelli Eds., *ACS Symposium Series 282*, American Chemical Society: Washington, DC, 91-104 (1985).

92. V. Percec and T. D. Shaffer. "Thermotropic Polyethers and Copolyethers. A New Class of Main Chain Liquid Crystalline Polymers" in *Advances in Polymer Synthesis*, B. M. Culbertson and J. McGrath, Eds., Plenum: New York, 133-157 (1985).

93. V. Percec, H. Nava and J. M. Rodriguez-Parada. "Functional Polymers Based on *p*- and *m*-(Hydroxyphenyl)-2-Oxazolines" in *Advances in Polymer Synthesis*, B. M. Culbertson and J. E. McGrath Eds., Plenum: New York, 235-250 (1985).

94. C. Pugh and V. Percec. "Synthesis and Group Transfer Polymerization and Co-polymerization of *p*-Vinylbenzyl Methacrylate." *Polym. Bull.*, **14**, 109-116 (1985).

95. J. M. Rodriguez-Parada and V. Percec. "Interchain EDA Complexes of Poly[N-(2-Hydroxyethyl) Carbazolyl Methacrylate] with Poly(ω-Hydroxyalkyl-3,5-Dinitrobenzoyl Methacrylate)s." *Polym. Bull.*, **14**, 165-171 (1985).

96. T. D. Shaffer and V. Percec. "Thermotropic Polyketones: A New Class of Main-Chain Liquid Crystalline Polymers." *Polym. Bull.*, **14**, 367-374 (1985).

97. T. D. Shaffer, M. Jamaludin and V. Percec. "Functional Polymers and Sequential Copolymers by Phase Transfer Catalysis. 16. Influence of Sequence Distribution on the Mesomorphic Properties of Thermotropic Copolyethers Containing 4,4'-Dihydroxybiphenyl." *J. Polym. Sci. Part A: Polym. Chem.*, **24**, 15-27 (1986).

98. C. Pugh and V. Percec. "Functional Polymers and Sequential Copolymers by Phase Transfer Catalysis. 17. Miscible Blends from Poly(2,6-dimethyl-1,4-phenylene oxide) and Poly(epichlorohydrin) Containing Pendant Electron-Donor and Electron-Acceptor Groups." *Macromolecules*, **19**, 65-71 (1986).

99. T. D. Shaffer and V. Percec. "Functional Polymers and Sequential Copolymers by Phase Transfer Catalysis. XIX. Thermotropic Polythioethers and Copolythioethers Based on 4,4'-Dithiolbiphenyl." *J. Polym. Sci. Part A: Polym. Chem.*, **24**, 451-467 (1986).

100. J. M. Rodriguez-Parada and V. Percec. "Interchain EDA Complexes: A Model for LCST?" *J. Polym. Sci. Polym. Chem. Ed.*, **24**, 579-587 (1986).

101. C. Pugh, J. M. Rodriguez-Parada and V. Percec. "The Influence of Molecular Weight of the Donor Polymer on the Solid-State Behavior of Interchain EDA Complexes." *J. Polym. Sci. Part A: Polym. Chem.*, **24**, 747-758 (1986).

102. H. Nava and V. Percec. "Functional Polymers and Sequential Copolymers by Phase Transfer Catalysis. 18. Synthesis and Characterization of α,ω-Bis(2,6-dimethylphenol)-poly(2,6-dimethyl-1,4-phenylene oxide) and α,ω-Bis(vinylbenzyl)-poly(2,6-dimethyl-1,4-phenylene oxide) Oligomers." *J. Polym. Sci. Part A: Polym. Chem.*, **24**, 965-990 (1986).

103. T. D. Shaffer and V. Percec. "Functional Polymers and Sequential Copolymers by Phase Transfer Catalysis. 20. Synthesis of Copolymers and Alternating Block Copolymers Containing Thermotropic Liquid Crystalline Polyethers and Aromatic Poly(ether sulfone) Segments." *Makromol. Chem.*, **187**, 111-123 (1986).

104. J. M. Rodriguez-Parada and V. Percec. "Interchain Electron Donor-Acceptor Complexes: A Model to Study Polymer-Polymer Miscibility?" *Macromolecules*, **19**, 55-64 (1986).

105. V. Percec. "New Developments in Polymer Synthesis by Phase Transfer Catalysis" in *Phase Transfer Catalysis*, C. M. Starks Ed., *ACS Symposium Series 326*, American Chemical Society: Washington, DC, 96-115 (1986).

106. T. D. Shaffer and V. Percec. "Functional Polymers and Sequential Copolymers by Phase Transfer Catalysis. 21. Thermotropic Aromatic Poly(ether sulfone)s: A New Class of Thermotropic Aromatic Main-Chain Liquid Crystalline Polymers." *Makromol. Chem.*, **187**, 1431-1439 (1986).

107. J. M. Rodriguez-Parada and V. Percec. "Poly(vinyl ether)s and Poly(propenyl ether)s Containing Mesogenic Groups: A New Class of Thermotropic Side-Chain Liquid- Crystalline Polymers." *J. Polym. Sci. Part A: Polym. Chem.*, **24**, 1363-1378 (1986).

108. V. Percec and T. D. Shaffer. "Functional Polymers and Sequential Copolymers by Phase Transfer Catalysis. 23. Single Electron Transfer Phase Transfer Catalyzed Polymerization of 4-Bromo-2,6-Dimethylphenol." *J. Polym. Sci. Polym. Lett. Ed.*, **24**, 439-446 (1986).

109. U. Epple, H. A. Schneider and V. Percec. "Copolymerization of Methacrylate with Electron-Acceptor (β-Hydroxyethyl)-3,5-Dinitrobenzoyl Acrylate and n-Butylacrylate with Electron-Donor N-(2-Hydroxyethyl)Carbazolyl Acrylate." *Polym. Bull.*, **16**, 137-142 (1986).

110. C. Pugh and V. Percec. "Functional Polymers and Sequential Copolymers by Phase Transfer Catalysis. 29. Synthesis of Thermotropic Side-Chain Liquid Crystalline Polymers Containing a Poly(2,6-dimethyl-1,4-phenylene oxide) Main Chain." *Polym. Bull.*, **16**, 513-520 (1986).

111. C. Pugh and V. Percec. "Functional Polymers and Sequential Copolymers by Phase Transfer Catalysis. 30. Synthesis of Liquid Crystalline Poly(epichlorohydrin) and Copolymers." *Polym. Bull.*, **16**, 521-528 (1986).

112. W. Jishan, B. C. Auman, H. A. Schneider, H. J. Cantow and V. Percec. "Synthese und Mechanische Eigenschaften von Aromatischen Polyethersulfon-Polydimethylsiloxan- Netzwerken." *Makromol. Chem. Rapid Commun.*, **7**, 303-306 (1986).

113. V. Percec and C. Pugh. "Oligomers" in *Encyclopedia of Polymer Science and Engineering*, Second Ed. Vol. 10, Mark-Bikales-Overberger-Menges, Eds., John Wiley & Sons: New York, 430-463 (1987).

114. V. Percec and H. Nava. "Functional Polymers and Sequential Copolymers by Phase Transfer Catalysis. 25. Transformation of a Monotropic Mesophase into an Enantiotropic One by Increasing the Molecular Weight of the Polymer and by Copolymerization." *J. Polym. Sci. Part A: Polym. Chem.*, **25**, 405-431 (1987).

115. B. Hahn and V. Percec. "Functional Polymers and Sequential Copolymers by Phase Transfer Catalysis. XXII. Vinylidene Fluoride-Trifluoroethylene Copolymers by Surface Modification of Polyvinylidene Fluoride." *J. Polym. Sci. Part A: Polym. Chem.*, **25**, 783-804 (1987).

116. B. C. Auman, V. Percec, H. A. Schneider, W. Jishan and H. J. Cantow. "Thermally Reactive Oligomers of Aromatic Poly(ether sulfone) Containing Poly(dimethylsiloxane): Part 1. Synthesis and Characterization." *Polymer*, **28**, 119 - 131 (1987).

117. H. A. Schneider, W. Jishan, H.-J. Cantow, B. C. Auman and V. Percec. "Thermally Reactive Oligomers of Aromatic Poly(ether sulfone) Containing Poly(dimethylsiloxane): Part 2. Mechanical Properties in the Poly(ether sulfone) Glass Transition Range." *Polymer*, **28**, 132-138 (1987).

118. V. Percec, H. Nava and H. Jonsson. "Functional Polymers and Sequential Copolymers by Phase Transfer Catalysis. 24. The Influence of Molecular Weight on the Thermotropic Properties of a Random Copolyether Based on 1,5-Dibromopentane, 1,7-Dibromoheptane and 4,4'-Dihydroxy-α-methylstilbene." *J. Polym. Sci. Part A: Polym. Chem.*, **25**, 1943-1965 (1987).

119. J. M. Tingerthal, H. Nava and V. Percec. "Synthesis and Characterization of ABA Triblock Copolymers Containing Poly(2,6-dimethyl-1,4-phenylene oxide) as A Blocks and Tetramethyl Bisphenol-A Polysulfone as B Blocks." *J. Polym. Sci. Part A: Polym. Chem.*, **25**, 2043-2062 (1987).

120. J. M. Rodriguez-Parada and V. Percec. "Synthesis and Characterization of Liquid Crystalline Poly(*N*-acylethyleneimine)s." *J. Polym. Sci. Part A: Polym. Chem.*, **25**, 2269-2279 (1987).

121. C. S. Hsu, J. M. Rodriguez-Parada and V. Percec. "Liquid Crystalline Polymers Containing Heterocycloalkane Mesogens. 2. Side-Chain Liquid Crystalline Polysiloxanes Containing 2,5-Disubstituted-1,3-Dioxane Mesogens." *J. Polym. Sci. Part A: Polym. Chem.*, **25**, 2425-2445 (1987).

122. V. Percec and J. M. Tingerthal. "Synthesis of Aromatic Polyethers Containing 2,6(7)-Dihydroxy[1,3,5(6),7(8)-tetramethylanthracene] Units." *J. Polym. Sci. Part A: Polym. Chem.*, **25**, 2577-2583 (1987).

123. K. Mühlbach and V. Percec. "The Influence of Molecular Weight on the Reactivity of a Vinylbenzyl Ether Macromonomer of Poly(2,6-dimethyl-1,4-phenylene oxide)." *J. Polym. Sci. Part A: Polym. Chem.*, **25**, 2605-2627 (1987).

124. T. D. Shaffer and V. Percec. "Functional Polymers and Sequential Copolymers by Phase Transfer Catalysis. XXVI. Synthesis and Characterization of Thermotropic Liquid Crystalline Polypodants." *J. Polym. Sci. Part A: Polym. Chem.*, **25**, 2755-2779 (1987).

125. C. S. Hsu and V. Percec. "Synthesis and Characterization of Liquid Crystalline Polysiloxanes Containing Benzyl Ether Mesogens." *J. Polym. Sci. Part A: Polym. Chem.*, **25**, 2909-2923 (1987).

126. T. D. Shaffer, K. Antolin and V. Percec. "Functional Polymers and Sequential Copolymers by Phase Transfer Catalysis. 27. Synthesis of Aromatic-Aliphatic Polyformals by Polyetherification of 1,4-Bis(chloromethoxy)butane with 4,4'-Isopropylidenediphenol." *Makromol. Chem.*, **188**, 1033-1046 (1987).

127. B. C. Auman, V. Percec, H. A. Schneider and H.-J. Cantow. "Alternating Block Copolymers of Aromatic Poly(ether sulphone) and Poly(dimethylsiloxane) by Hydrosilylation." *Polymer*, **28**, 1407-1417 (1987).

128. C. S. Hsu and V. Percec. "Liquid Crystalline Polymers Containing Heterocycloalkane Mesogens. 4. Biphasic Side-Chain Liquid Crystalline Polysiloxanes Containing trans 5-(n-undecanyl)-2-(4-methoxyphenyl)-1,3-dioxane and trans 2(n-decanyl)-5-(4-methoxyphenyl)-1,3-dioxane Mesogens." *Polym. Bull.*, **17**, 49 (1987).

129. V. Percec, J. M. Rodriguez-Parada and C. Ericsson. "Synthesis and Characterization of Liquid Crystalline Poly(p-vinylbenzyl ether)s." *Polym. Bull.*, **17**, 347-352 (1987).

130. V. Percec, J. M. Rodriguez-Parada, C. Ericsson and H. Nava. "Liquid Crystalline Copolymers of Monomer-Pairs Containing Mesogenic Units which Exhibit Constitutional Isomerism." *Polym. Bull.*, **17**, 353-359 (1987).

131. C. S. Hsu and V. Percec. "Synthesis and Characterization of Biphasic Liquid Crystalline Polysiloxanes Containing 4-Undecanyloxy-4'-cyanobiphenyl Side-Groups." *Polym. Bull.*, **18**, 91-98 (1987).

132. V. Percec and D. Tomazos. "Liquid Crystalline Copoly(vinylether)s Containing 4(4')-Methoxy-4' (4)-Hydroxy-α-methylstilbene Constitutional Isomers as Side Groups." *Polym. Bull.*, **18**, 239-246 (1987).

133. C. S. Hsu, J. M. Rodriguez-Parada and V. Percec. "Liquid Crystalline Polymers Containing Heterocycloalkanediyl Groups as Mesogens. 1. Liquid Crystalline Polymethacrylates and Polyacrylates Containing 1,3-Dioxane-2,5-diyl Groups Mesogens in the Side Chain." *Makromol. Chem.*, **188**, 1017-1031 (1987).

134. C. S. Hsu and V. Percec. "Liquid Crystalline Polymers Containing Heterocycloalkane Mesogens. 3. Biphasic Side-Chain Liquid Crystalline Polysiloxanes Containing *trans*-11-[2-(4-cyanophenyl)-1,3-dioxan-5-yl]undecyl Side Groups." *Makromol. Chem. Rapid Commun.*, **8**, 331-337 (1987).

135. K. J. Kuhn, B. Hahn, V. Percec and M. W. Urban. "Structural and Quantitative Analysis of Surface Modified Poly(vinylidene fluoride) Films Using ATR FT-IR Spectroscopy." *Appl. Spectroscopy*, **41**, 843-847 (1987).

136. J. F. Kunzler and V. Percec. "Living Non-Conjugated Polyacetylenes." *Polym. Bull.*, **18**, 303-309 (1987).

137. C. Pugh and V. Percec. "The Effect of the Polymer Backbone on the Thermotropic Behavior of Side Chain Liquid Crystalline Polymers" in *Chemical Reactions on Polymers*, J. L. Benham and F. J. Kinstle Eds., *ACS Symposium Series 364*, American Chemical Society: Washington, DC, 97-118 (1987).

138. B. Hahn and V. Percec. "Liquid Crystalline Polymers Containing Heterocycloalkane Mesogenic Groups. 5. Synthesis of Biphasic Chiral-Smectic Polysiloxanes Containing 2,5-Disubstituted-1,3-dioxane- and 2,5-Disubstituted-1,3,2-dioxaborinan-Based Mesogenic Groups." *Macromolecules*, **20**, 2961-2968 (1987).

139. V. Percec, B. C. Auman, H. Nava and J. P. Kennedy. "Functional Polymers and Sequential Copolymers by Phase Transfer Catalysis. XXVIII. Synthesis and Characterization of Alternating Block Copolymers and Polyformals of Polyisobutylene and Aromatic Polyether Sulfone." *J. Polym. Sci. Part A: Polym. Chem.*, **26**, 721-741 (1988).

140. V. Percec and H. Nava. "Synthesis of Aromatic Polyethers by Scholl Reaction. I. Poly(1,1'-Dinaphthyl Ether Phenyl Sulfone)s and Poly(1,1'-Dinaphthyl Ether Phenyl Ketone)s." *J. Polym. Sci.: Part A: Polym. Chem.*, **26**, 783-805 (1988).

141. V. Percec, H. G. Schild, J. M. Rodriguez-Parada and C. Pugh. "Interchain Electron Donor-Acceptor Complexes. Determination of Equilibrium Constant and Thermodynamic Parameters in the Solid State." *J. Polym. Sci. Part A: Polym. Chem.*, **26**, 935-951 (1988).

142. V. Percec. "Liquid Crystalline Polyethers." *Mol. Cryst. Liq. Cryst.*, **155**, 1-35 (1988).

143. V. Percec. "Liquid Crystalline Polymers by Cationic Polymerization." *Makromol. Chem., Symp.*, **13/14**, 397-405 (1988).

144. J. L. Feijoo, G. Ungar, A. J. Owen and A. Keller and V. Percec. "Effects of Thermal Treatment on the Temperature and Heat of Isotropization in a Nematic Polyether." *Mol. Cryst. Liq. Cryst.*, **155**, 487-494 (1988).

145. B. C. Auman and V. Percec. "Synthesis and Characterization of Segmented Copolymers of Aromatic Polyether Sulphone and a Thermotropic Liquid Crystalline Polyester." *Polymer*, **29**, 938-949 (1988).

146. B. Hahn and V. Percec. "Chiral Smectic Liquid Crystalline Polymers." *Mol. Cryst. Liq. Cryst*, **157**, 125-150 (1988).

147. C. S. Hsu and V. Percec. "Liquid Crystalline Polymers Containing Heterocycloalkanediyl Groups as Mesogens. 6. Liquid Crystalline Poly[*trans*-11-{4-[5-(4-methoxyphenyl)-1,3-dioxan-2-yl]-2,6-dimethylphenoxy}undecyl methacrylate] and Poly[*trans*-11-{4-[5-(4-methoxyphenyl)-1,3-dioxan-2-yl]-2,6dimethylphenoxy}undecylacrylate]." *Makromol. Chem.*, **189**, 1141-1153 (1988).

148. V. Percec, C. S. Hsu and D. Tomazos. "Synthesis and Characterization of Liquid Crystalline Copolymethacrylates, Copolyacrylates and Copolysiloxanes Containing 4-Methoxy-4'-Hydroxy-α-Methylstilbene and 4-Hydroxy-4'-Methoxy-α-Methylstilbene Constitutional Isomers as Side Groups." *J. Polym. Sci. Polym. Chem. Ed.*, **26**, 2047-2076 (1988).

149. V. Percec and R. Yourd. "Liquid Crystalline Polyethers Based on Conformational Isomerism. 1. Quasi-Rigid Polyethers Containing Methyleneoxy Units." *Macromolecules*, **21**, 3379-3386 (1988).

150. B. C. Auman, H. J. Cantow, W. Jishan, V. Percec and H. A. Schneider. "A Novel Approach to Thermoplastic Elastomers with Enhanced Temperature Resistance" in *Polymers for Advanced Technologies*, M. Levin Ed., VCH: Weinheim and New York, 918-924 (1988).

151. V. Percec, C. Pugh, O. Nuyken and S. D. Pask. "Macromonomers, Oligomers and Telechelics" in *Comprehensive Polymer Science*, Sir. G. Allen and J. C. Bevington Eds., Vol. **6**, Pergamon: Oxford, 281-357 (1989).

152. C. S. Hsu and V. Percec. "Synthesis and Characterization of Liquid Crystalline Polyacrylates and Polymethacrylates Containing Benzyl Ether and Diphenyl Ethane Based Mesogens." *J. Polym. Sci. Part A: Polym. Chem.,* **27**, 453-466 (1989).

153. V. Percec and C. Pugh. "Molecular Engineering of Predominantly Hydrocarbon Based Liquid Crystalline Polymers" in *Side Chain Liquid Crystalline Polymers*, C. B. McArdle Ed., Blackie and Son: Glasgow and Chapman and Hall: New York, 30-105 (1989).

154. V. Percec and D. Tomazos. "Synthesis and Characterization of Liquid Crystalline Polymethacrylates, Polyacrylates and Polysiloxanes Containing 4-Methoxy-4'-Hydroxy-α-Methylstilbene-Based Mesogenic Groups." *J. Polym. Sci. Part A: Polym. Chem.*, **27**, 999-1015 (1989).

155. V. Percec and R. Yourd. "Liquid Crystalline Polyethers Based on Conformational Isomerism. 2. Thermotropic Polyethers and Copolyethers Based on 1-(4-Hydroxyphenyl)-2-(2-methyl-4-hydroxyphenyl)ethane and Flexible Spacers Containing Odd Number of Methylene Units." *Macromolecules*, **22**, 524-537 (1989).

156. V. Percec and D. Tomazos. "Transformation of a Monotropic Mesophase into an Enantiotropic Mesophase by Copolymerization of the Parent Polymers' Monomer Pair Containing Constitutional Isomeric Mesogenic Side Groups." *Macromolecules*, **22**, 1512-1514 (1989).

157. V. Percec and B. Hahn. "Liquid Crystalline Polymers Containing Heterocycloalkanediyl Groups as Mesogens. 7. Molecular Weight and Composition Effects on the Phase Transitions of Poly(methylsiloxane)s and Poly(methylsiloxane-*co*-dimethylsiloxane)s Containing 2-[4-(2(*S*)-Methyl-1-butoxy)phenyl]-5-(11-undecanyl)-1,3,2-dioxaborinane Side Groups." *Macromolecules*, **22**, 1588-1599 (1989).

158. V. Percec and R. Rodenhouse. "Liquid Crystalline Polyethers Containing Macroheterocyclic Ligands. 1. Polyethers and Copolyethers Based on 4,4'-Dihydroxy-α-methylstilbene, Bis(8-bromooctyl)dibenzo-18-crown-6, and/or 1,11-Dibromoundecane." *Macromolecules*, **22**, 2043-2047 (1989).

159. V. Percec and D. Tomazos. "Synthesis and Characterization of Liquid Crystalline Polymethacrylates, Polyacrylates and Polysiloxanes Containing 4-Hydroxy-4'-methoxy-α-methylstilbene Based Mesogenic Groups." *Macromolecules*, **22**, 2062-2069 (1989).

160. V. Percec and B. Hahn. "Side-Chain Liquid Crystalline Polymers Containing 4-[2-(S)-Methyl-1-Butoxy]-4'-(11-Undecanyl-1-Oxy)-α-Methylstilbene Side Groups." *J. Polym. Sci. Part A: Polym. Chem.*, **27**, 2367-2384 (1989).

161. V. Percec and R. Yourd. "Liquid Crystalline Polyethers Based on Conformational Isomerism. 3. The Influence of Thermal History on the Phase Transitions of Thermotropic Polyethers and Copolyethers Based on 1-(4-Hydroxyphenyl)-2-(2-methyl-4-hydroxyphenyl)ethane and Flexible Spacers Containing an Odd Number of Methylene Units." *Macromolecules*, **22**, 3229-3242 (1989).

162. V. Percec, D. Tomazos and C. Pugh. "Influence of Molecular Weight on the Thermotropic Mesophases of Poly{6-[4-(4-methoxy-β-methylstyryl)phenoxy]hexyl methacrylate}." *Macromolecules*, **22**, 3259-3267 (1989).

163. V. Percec and D. Tomazos. "Suppression of Side Chain Crystallization and Transformation of Monotropic Mesophases into Enantiotropic Mesophases by Copolymerization of the Parent Polymers' Monomer Pairs Containing Constitutional Isomeric Mesogenic Side Groups." *Polymer*, **30**, 2124-2129 (1989).

164. V. Percec, D. Tomazos and R. A. Willingham. "The Influence of the Polymer Backbone Flexibility on the Phase Transitions of Side Chain Liquid Crystal Polymers Containing 6-[4-(4-Methoxy-β-methylstyryl)phenoxy]hexyl Side Groups." *Polym. Bull.*, **22**, 199-206 (1989).

165. V. Percec and Y. Tsuda. "Liquid Crystalline Polyethers Based on Conformational Isomerism. 7. Synthesis and Determination of the Virtual Mesomorphic Phase Transitions of Polyethers and Copolyethers Based on 1-(4-Hydroxyphenyl)-2-(2-methyl-4-hydroxyphenyl)ethane and 1,13-Dibromotridecane." *Polym. Bull.*, **22**, 489-496 (1989).

166. V. Percec and Y. Tsuda. "Liquid Crystalline Polyethers Based on Conformational Isomerism. 8. Synthesis and Determination of the Virtual Mesomorphic Phase Transitions of Polyethers and Copolyethers Based on 1-(4-Hydroxyphenyl)-2-(2-methyl-4-hydroxyphenyl)ethane and 1,14-Dibromotetradecane." *Polym. Bull.*, **22**, 497-504 (1989).

167. V. Percec and R. Rodenhouse. "Liquid Crystal Polymers Containing Macroheterocyclic Ligands. 2. Side Chain Liquid Crystal Polysiloxanes and Polymethacrylates Containing 4-(ω-Alkan-1-yloxy)-4'-(4'-carboxybenzo-15-Crown-5)biphenyl Side Groups." *Macromolecules*, **22**, 4408-4412 (1989).

168. V. Percec and R. Yourd. "Liquid Crystalline Polyethers and Copolyethers Based on Conformational Isomerism. 4. Thermotropic Polyethers and Copolyethers Based on 1-(4-Hydroxyphenyl)-2-(2-methyl-4-hydroxyphenyl)ethane and Flexible Spacers Containing an Even Number of Methylene Units." *Makromol. Chem.*, **191**, 25-48 (1990).

169. V. Percec and R. Yourd. "Liquid Crystalline Polyethers and Copolyethers Based on Conformational Isomerism. 5. Thermotropic Copolyethers Based on 1-(4-Hydroxyphenyl)-2-(2-methyl-4-hydroxyphenyl)ethane and Flexible Spacers Containing Odd and Even Numbers of Methylene Units." *Makromol. Chem.*, **191**, 49-69 (1990).

170. V. Percec and Y. Tsuda. "Liquid Crystalline Polyethers Based on Conformational Isomerism. 6. Influence of Copolymer Composition of a Ternary Copolyether Based on 1-(4-Hydroxyphenyl)-2-(2-methyl-4-hydroxyphenyl)ethane, 1,5-Dibromopentane, 1,7-Dibromoheptane and 1,9-Dibromononane on Its Mesomorphic Phase Transitions." *Macromolecules*, **23**, 5-12 (1990).

171. V. Percec and C. Pugh. "Oligomers" in *Concise Encyclopedia of Polymer Science and Engineering*, H. F. Mark, N. M. Bikales, C. G. Overberger and G. Menges Eds., John Wiley & Sons: New York, 432-463 (1990).

172. C. J. Hsieh, C. S. Hsu, G. H. Hsiue and V. Percec. "Synthesis and Characterization of Side Chain Liquid Crystalline Polysiloxanes Containing Oligooxyethylene Spacers and Benzyl Ether Based Mesogenic Groups." *J. Polym. Sci. Part A: Polym. Chem.*, **28**, 425-435 (1990).

173. J. Kunzler and V. Percec. "Functionalized Non-Conjugated Polyacetylenes." *New Polym. Mater.*, **1**, 271-279 (1990).

174. V. Percec, U. Epple, J. H. Wang and H. A. Schneider. "The Influence of Total Monomer Concentration on the "Reactivity" of ω-(p-Vinylbenzyl Ether) Macromonomers of Poly(2,6-dimethyl-1,4-phenylene oxide) Determined from Radical Copolymerization Experiments with Butyl Methacrylate." *Polym. Bull.*, **23**, 19-26 (1990).

175. C. Pugh and V. Percec. "Phase Transfer Pd(0) Catalyzed Polymerization Reactions. 4. Thermal Characterization of 1,4-Bis[2-(4',4"-dialkoxyaryl)ethynyl]benzene Derivatives and Their Electron-Donor-Acceptor Complexes with *p*-Chloranil." *Polym. Bull.*, **23**, 177-184 (1990).

176. V. Percec and Y. Tsuda. "Liquid Crystalline Polyethers Based on Conformational Isomerism. 9. Synthesis and Determination of the Virtual Mesophases Transitions of Polyethers Based on 1-(4-Hydroxyphenyl)-2-(2-methyl-4-hydroxyphenyl)ethane with 1,15-Dibromopentadecane and 1,16-Dibromohexadecane." *Polym. Bull.*, **23**, 225-232 (1990).

177. J. Kunzler and V. Percec. "Polymerization of 3-Chloro-1-Propyne and 3-Bromo-1-Propyne with $MoCl_5$ and WCl_6 Based Initiators and the Structure of the Resulting Polymers." *J. Polym. Sci. Part A: Polym. Chem.*, **28**, 1043-1057 (1990).

178. V. Percec and J. H. Wang. "The Influence of Total Monomers Concentration and Polymerization Solvent on the "Reactivity" of ω-(*p*-Vinylbenzyl Ether) Macromonomers of Poly(2,6-Dimethyl-1,4-Phenylene Oxide)." *J. Polym. Sci. Part A: Polym. Chem.*, **28**, 1059-1071 (1990).

179. C. Pugh and V. Percec. "Phase Transfer Pd(0) Catalyzed Polymerization Reactions. 1. Synthesis of 1,2-(4,4'-Dialkoxyaryl)acetylene Monomers and 1,4-Bis[2-(4',4"-Dialkoxyphenyl)ethynyl]benzene Derivatives by Phase Transfer Pd(0)/Cu(I) Catalyzed Coupling Reactions." *J. Polym. Sci. Part A: Polym. Chem.*, **28**, 1101-1126 (1990).

180. J. Kunzler and V. Percec. "Living Polymerization of Aryl Substituted Acetylenes by $MoCl_5$ and WCl_6 Based Initiators: The Ortho Phenyl Substituent Effect." *J. Polym. Sci. Part A: Polym. Chem.*, **28**, 1221-1236 (1990).

181. B. C. Perry, B. Hahn, V. Percec and J. Koenig. "A ^{13}C Nuclear Magnetic Resonance Study of the Effect of Temperature on the Side-Chain Polysiloxane Liquid Crystal Containing *trans*-2-[*p*-(1-Undecanyl-11-oxy)phenyl]-5-[(*p*-2(*S*)-Methyl-1-butoxy)phenyl]-1,3-dioxane." *Polymer*, **31**, 721-727 (1990).

182. V. Percec and D. Tomazos. "Can the Rigidity of a Side-Chain Liquid Crystalline Polymer Backbone Influence the Mechanism of Distortion of Its Random-Coil Conformation?" *Polymer*, **31**, 1658-1662 (1990).

183. C. Pugh and V. Percec. "Phase Transfer Pd(0) Catalyzed Polymerization Reactions. 2. Thermal Characterization of Liquid Crystalline 1,2-(4,4'-Dialkoxyaryl)acetylene Derivatives." *Mol. Cryst. Liq. Cryst.*, **178**, 193-217 (1990).

184. V. Percec, B. Hahn, M. Ebert and J. H. Wendorff. "Liquid Crystalline Polymers Containing Heterocycloalkanediyl Groups as Mesogens. 8. Morphological Evidence for Microphase Separation in Poly(methylsiloxane-*co*-dimethylsiloxane)s Containing 2-[4-(2(*S*)-Methyl-1-butoxy)phenyl]-5-(11-Undecanyl)-1,3,2-Dioxaborinane Side Groups." *Macromolecules*, **23**, 2092-2095 (1990).

185. G. Ungar, J. L. Feijoo, A. Keller, R. Yourd and V. Percec. "Simultaneous X-ray/DSC Study of Mesomorphism in Polymers with a Semiflexible Mesogen." *Macromolecules*, **23**, 3411-3416 (1990).

186. J. L. Feijoo, G. Ungar, A. Keller and V. Percec. "Non-Equilibrium Excess Order in the Isotropic State of Main-Chain Liquid-Crystal-Forming Polymers." *Polymer*, **31**, 2019-2022 (1990).

187. E. Cramer and V. Percec. "Phase Transfer Pd(0) Catalyzed Polymerization Reactions. III. Polymerization by Cross-Coupling of Alkyl-Boron Compounds and Aromatic Halides Catalyzed by $PdCl_2$(dppf) and Bases." *J. Polym. Sci. Part A: Polym. Chem.*, **28**, 3029-3046 (1990).

188. V. Percec and Y. Tsuda. "Liquid Crystalline Polyethers Based on Conformational Isomerism. 10. Synthesis and Determination of the Virtual Mesophases of Polyethers Based on 1-(4-Hydroxyphenyl)-2-(2-methyl-4-hydroxyphenyl)ethane and α,ω-Dibromoalkanes Containing from 17 to 20 Methylene Units." *Macromolecules*, **23**, 3509-3520 (1990).

189. V. Percec and C. S. Hsu. "Synthesis and Mesomorphic Behavior of Poly(methylsiloxane)s and Poly(methylsiloxane-co-dimethylsiloxane)s Containing Oligooxyethylene Spacers and Mesogenic Side Groups." *Polym. Bull.*, **23**, 463-470 (1990).

190. R. Rodenhouse, V. Percec and A. E. Feiring. "Liquid Crystal Polymers Containing Macroheterocyclic Ligands. 4. Synthesis of Mesomorphic Polymers Containing Crown Ethers by Cationic Cyclocopolymerization of 1,2-Bis(2-ethenyloxyethoxy)benzene with Mesogenic Vinyl Ethers." *J. Polym. Sci. Part C: Polym. Lett.*, **28**, 345-355 (1990).

191. V. Percec and A. Keller. "A Thermodynamic Interpretation of Polymer Molecular Weight Effect on the Phase Transitions of Main-Chain and Side-Chain Liquid-Crystal Polymers." *Macromolecules*, **23**, 4347-4350 (1990).

192. V. Percec and Y. Tsuda. "Liquid Crystalline Polyethers Based on Conformational Isomerism. 13. Copolyethers Based on 1-(4-Hydroxyphenyl)-2-(2-methyl-4-hydroxyphenyl)ethane, 1,8-Dibromooctane and Nonmesogenic Bisphenols." *Polym. Bull.*, **24**, 9-16 (1990).

193. V. Percec and J. H. Wang. "A Radical-Anion Mechanism for the Phase Transfer Catalyzed Depolymerization of Poly(2,6-dimethyl-1,4-phenylene oxide)." *Polym. Bull.*, **24**, 63-69 (1990).

194. V. Percec and J. H. Wang. "Phase Transfer Catalyzed Depolymerization of Poly(2,6-dimethyl-1,4-phenylene oxide) in the Presence of Either 2,4,6-Trimethylphenol or 4-tert-Butyl-2,6-dimethylphenol." *Polym. Bull.* **24**, 71-78 (1990).

195. V. Percec and J. Heck. "Liquid Crystalline Polymers Containing Mesogenic Units Based on Half-Disc and Rod-Like Moieties. 2. Synthesis and Characterization of Poly{2-[3,4,5-tri[*p*-(*n*-dodecan-1-yloxy)benzyloxy]benzoate]-7-[*p*-(11-undecan-1-yloxy)benzoate]naphthalene] methyl siloxane}." *Polym. Bull.*, **24**, 255-262 (1990).

196. V. Percec and J. H. Wang. "Synthesis of α,ω-Bis(2,6-dimethylphenol)-poly(2,6-dimethyl-1,4-phenylene oxide) by Phase Transfer Catalyzed Polymerization of 4-Bromo-2,6-dimethylphenol in the Presence of 2,2-Di(4-hydroxy-3,5-dimethylphenyl)propane." *Polym. Bull.*, **24**, 493-500 (1990).

197. A. Keller, G. Ungar and V. Percec. "Liquid Crystal Polymers: A Unifying Thermodynamics Based Scheme," in *Advances in Liquid Crystalline Polymers*, R. A. Weiss and C. K. Ober Eds., *ACS Symposium Series 435*, American Chemical Society, Washington, DC: 308-334 (1990).

198. J. L. Feijoo, G. Ungar, A. Keller, J. A. Odell, A. J. Owen and V. Percec. "Evidence for Disclinations under Shear in the Isotropic State of Main Chain Liquid Crystal Forming Polymers." *Mol. Cryst. Liq. Cryst.*, **196**, 1-11 (1991).

199. V. Percec and Y. Tsuda. "Liquid Crystalline Polyethers Based on Conformational Isomerism: 11. Isomorphism in Liquid-Crystal Polyethers and Copolyethers Based on 1-(4-Hydroxyphenyl)-2-(2-methyl-4-hydroxyphenyl)ethane and α,ω–Dibromoalkanes." *Polymer*, **32**, 661-672 (1991).

200. V. Percec and Y. Tsuda. "Liquid Crystalline Polyethers Based on Conformational Isomerism. 12. Molecular Engineering of Phase Transitions in Copolyethers Based on 1-(4-Hydroxyphenyl)-2-(2-methyl-4-hydroxyphenyl)ethane and Multiple Combinations of Flexible Spacers." *Polymer*, **32**, 673-681 (1991).

201. S. Z. D. Cheng, M. A. Yandrasits and V. Percec. "Phase Behaviour in a Thermotropic Polyether Involving Rod-like Mesogenic Groups Based on Conformational Isomerism." *Polymer*, **32**, 1284-1292 (1991).

202. V. Percec, D. Tomazos and A. E. Feiring. "Semifluorinated Polymers: 1. Synthesis and Characterization of Side Chain Liquid Crystalline Polymers Containing Semifluorinated Oligooxyethylene Based Flexible Spacers." *Polymer*, **32**, 1897-1908 (1991).

203. V. Percec and M. Lee. "Molecular Engineering of Liquid Crystal Polymers by Living Polymerization. 5. Synthesis and Mesomorphic Behaviour of Poly{2-[(4-cyano-4'-biphenyl)oxy]ethyl Vinyl Ether-*co*-8-[(4-cyano-4'-biphenyl)oxy]octyl vinyl ether}." *Polymer*, **32**, 2862-2868 (1991).

204. V. Percec and J. H. Wang. "Synthesis of Aromatic Polyethers by Scholl Reaction. III. On the Polymerizability of 4,4'-Di(1-naphthoxy)diphenyl Sulfone and 1,5-Di(1-naphthoxy)pentane." *Polym. Bull.*, **25**, 9-16 (1991).

205. H. Wang and V. Percec. "Phase Transfer Catalyzed Polymerization of 4-Hydroxy-3,5-dimethylbenzyl Alcohol and Copolymerization of 4-Bromo-2,6-Dimethylphenol with 4-Hydroxy-3,5-Dimethylbenzyl Alcohol." *Polym. Bull.* **25**, 25-32 (1991).

206. H. Wang and V. Percec. "Phase Transfer Catalyzed Polymerization of 4-Bromo-2,6-dimethylphenol in the Presence of a Terminating Comonomer Phenol: 2,4,6-Tri-*tert*-butylphenol or 4-Bromo-2,6-di-*tert*-butylphenol." *Polym. Bull.,* **25**, 33-40 (1991).

207. V. Percec and J. H. Wang. "Synthesis and Characterization of Polyacrylonitrile Grafted with Poly(2,6-dimethyl-1,4-phenylene oxide)." *Polym. Bull.* **25**, 41-46 (1991).

208. R. Rodenhouse and V. Percec. "Liquid Crystal Polymers Containing Macroheterocyclic Ligands. 8. Synthesis and Characterization of Poly{1-[2-methyl-4-(4'-carboxybenzo-15-crown-5)phenyl]ethynyl-4-(11-vinyloxyundecan-1-yloxy)benzene}." *Polym. Bull.*, **25**, 47-54 (1991).

209. V. Percec and J. Heck. "Liquid Crystalline Polymers Containing Mesogenic Units Based on Half-Disc and Rod-like Moieties. 3. Synthesis and Characterization of Polymethylsiloxanes and Copolymethylsiloxanes Based on 4-[3,4,5-Tri(*p*-*n*-dodecan-1-yloxybenzyloxy) benzoate]-4'-(*p*-allyloxybenzoate)biphenyl and 4-[3,4,5-Tri(*p*-*n*-dodecan-1-yloxybenzyloxy)benzoate]-4'-(*p*-allyloxybenzoate)thiodiphenyl Side Groups." *Polym. Bull.*, **25**, 55-62 (1991).

210. H. Jonsson, V. Percec and A. Hult. "Molecular Engineering of Liquid Crystal Polymers by Living Polymerization. 4. Synthesis and Cationic Polymerization of Some Mesogenic Vinyl Ethers Containing Various Functional Groups." *Polym. Bull.*, **25**, 115-121 (1991).

211. V. Percec and M. Lee. "Molecular Engineering of Liquid Crystal Polymers by Living Polymerization. 6. Influence of Molecular Weight on the Phase Transitions of a 1/1 Copolymer of 2[(4-Cyano-4'-biphenyl)oxy]ethyl Vinyl Ether and 8-[(4-Cyano-4'-biphenyl)oxy]octyl Vinyl Ether." *Polym. Bull.*, **25**, 123-129 (1991).

212. V. Percec and M. Lee. "Molecular Engineering of Liquid Crystal Polymers by Living Polymerization. 7. Influence of Copolymer Composition on the Phase Behavior of Poly{11-[(4-cyano-4'-biphenyl)oxy]undecanyl Vinyl Ether-co-2-[(4-Cyano-4'-biphenyl)oxy]ethyl Vinyl Ether}." *Polym. Bull.*, **25**, 131-137 (1991).

213. V. Percec and J. Heck. "Liquid Crystalline Polymers Containing Mesogenic Units Based on Half-Disc and Rod-Like Moieties. 4. Side Chain Liquid Crystalline Polymethylsiloxanes Containing Hemiphasmidic Mesogens Based on 4-[3,4,5-Tri-(alkan-1-yloxy)benzoate Biphenyl Groups." *Polym. Bull.*, **25**, 431-438 (1991).

214. V. Percec and J. Kunzler. "Monitoring the $WCl_6/(CH_3)_4Sn$ Initiated Polymerization of Substituted Acetylenes by ^{1}H-NMR Spectroscopy." *Polym. Bull.*, **25**, 483-490 (1991).

215. H. Jonsson, P. E. Sundell, V. Percec, U. W. Gedde and A. Hult. "Cationic Bulk Polymerization of Mesogenic Vinyl Ethers Induced by Thermal Decomposition of Sulfonium Salts." *Polym. Bull.*, **25**, 649-656 (1991).

216. V. Percec and M. Zuber. "Liquid Crystalline Polyethers Based on Conformational Isomerism. 17. Some Considerations on the 'Rigidity' of "Rod-Like" Mesogens." *Polym. Bull.*, **25**, 695-700 (1991).

217. V. Percec and R. Rodenhouse. "Liquid Crystal Polymers Containing Macroheterocyclic Ligands. III. Side Chain Liquid Crystalline Polymethacrylates Containing Mesogenic Units Based on Diarylacetylenes and Benzo-15-Crown-5." *J. Polym. Sci. Part A: Chem.*, **29**, 15-28 (1991).

218. V. Percec and J. H. Wang. "Phase Transfer Catalyzed Polymerization of 4-Bromo-2,6-Dimethylphenol in the Presence of Either 2,4,6-Trimethylphenol or 4-*tert*-Butyl-2,6-Dimethylphenol." *J. Polym. Sci. Part A: Polym. Chem.*, **29**, 63-82 (1991).

219. V. Percec, M. Lee and H. Jonsson. "Molecular Engineering of Liquid Crystal Polymers by Living Polymerization. II. Living Cationic Polymerization of 11-[(4-Cyano-4'-biphenyl)oxy]undecanyl Vinyl Ether and the Mesomorphic Behavior of the Resulting Polymers." *J. Polym. Sci. Part A: Polym. Chem.*, **29**, 327-337 (1991).

220. V. Percec and J. Heck. "Liquid Crystalline Polymers Containing Mesogenic Units Based on Half-Disc and Rod-Like Moieties. 1. Synthesis and Characterization of 4-(11-Undecan-1-yloxy)-4'-[3,4,5-tri(p-n-Dodecan-1-yloxybenzyloxy)benzoate]Biphenyl Side Groups." *J. Polym. Sci. Part A: Polym. Chem.*, **29**, 591-597 (1991).

221. S. Gomez and V. Percec. "Synthesis and Mesomorphic Behavior of Poly{1-(4-Methoxy-4'-biphenyl)-2-[4-(11-Methacryloylundecanyl-1-oxyphenyl)]ethane} and Poly{1-[4-(11-Methacryloylundecanyl-1-Oxy)-4'-Biphenyl]-2-(4-Methoxyphenyl)ethane} Constitutional Isomers." *J. Polym. Sci. Part A: Polym. Chem.*, **29**, 919-922 (1991).

222. V. Percec, J. H. Wang and Y. Oishi. "Synthesis of Aromatic Polyethers by Scholl Reaction. II. On the Polymerizability of 4,4'-Bis(phenoxy)diphenyl Sulfones and of 4,4'-Bis(phenylthio)diphenyl Sulfone." *J. Polym. Sci. Part A: Polym. Chem.*, **29**, 949-964 (1991).

223. V. Percec, J. H. Wang, Y. Oishi and A. E. Feiring. "Synthesis of Aromatic Polyethers by Scholl Reaction. IV. Homopolymerization and Copolymerization of α,ω-Bis[4-(1-naphthoxy)phenylsulfonyl]perfloroalkanes." *J. Polym. Sci. Part A: Polym. Chem.*, **29**, 965-976 (1991).

224. V. Percec, A. S. Gomez and M. Lee. "Molecular Engineering of Liquid Crystal Polymers by Living Polymerization. XI. Synthesis and Characterization of Poly{11-[(4-cyano-4'-*trans*-α-Cyanostilbene)oxy]undecanyl Vinyl Ether}." *J. Polym. Sci. Part A: Polym. Chem.*, **29**, 1615-1622 (1991).

225. V. Percec, J. H. Wang and S. Okita. "Synthesis of Aromatic Polyethers by Scholl Reaction. V. Synthesis and Polymerization of 1,3-Bis[4-(1-naphthoxy)benzoyl]benzene, 1,4-Bis[4-(1-naphthoxy)benzoyl]benzene, Bis[4-

(1-napthoxy)phenyl]methane, 1,3-Bis[4-(1-naphthoxy) phenylmethyl]benzene and 1,4-Bis[4-(1-naphthoxy)phenylmethyl]benzene." *J. Polym. Sci. Part A: Polym. Chem.*, **29**, 1789-1800 (1991).

226. C. Pugh, C. Tarnstrom and V. Percec. "Phase Transfer Pd(0) Catalyzed Polymerization Reactions. 5. Synthesis and Thermal Characterization of 1,2-{4,4'-di[S(-)-2-methylbutyloxy]phenyl}acetylene and1-(4-*n*-alkoxypheny)-2-{4'-[S(-)-2 methylbutyloxy] phenyl}acetylene Monomers." *Mol. Cryst. Liq. Cryst.*, **195**, 185-197 (1991).

227. H. A. Schneider, W. Stocker, M. Korn, H. R. Kricheldorf and V. Percec. "Mechanical Dynamic Studies of Main Chain Liquid Crystalline Polyesters and Polyethers." *Mol. Cryst. Liq. Cryst.*, **196**, 57-69 (1991).

228. N. A. Vaz, G. W. Smith, G. P. Montgomery, W. D. Marion, V. Percec and M. Lee. "Refractive Indices of a Methylstilbene Polymer Liquid Crystal." *Mol. Cryst. Liq. Cryst.*, **198**, 305-321 (1991).

229. V. Percec, K. Asami, D. Tomazos, J. L. Feijoo, G. Ungar and A. Keller. "Synthesis and Characterization of Thermotropic Polyethers and Copolyethers based on 4,4'-dihydroxy-α-methylstilbene and Flexible Spacers Containing Odd Numbers of Methylene Units." *Mol. Cryst. Liq. Cryst.*, **205**, 47-66 (1991).

230. V. Percec, K. Asami, D. Tomazos, J. L. Feijoo, G. Ungar and A. Keller. "Synthesis and Characterization of Thermotropic Polyethers Based on 4,4'-dihydroxy-α-methylstilbene and Flexible Spacers Containing Even Numbers of Methylene Units and Copolyethers Based on Pairs of Flexible Spacers Containing Even and Odd-Even Numbers of Methylene Units." *Mol. Cryst. Liq. Cryst.*, **205**, 67-86 (1991).

231. G. Ungar, J. L. Feijoo, V. Percec and R. Yourd. "Liquid Crystalline Polyethers Based on Conformational Isomerism. 16. Hexagonal Columnar Phase (Φ_h) in a Non-discotic Copolyether Based on 1,2-Bis(4-hydroxyphenyl)ethane, 1,8-Dibromooctane and 1,12-Dibromododecane, and the Novel 2-Dimensional-3-Dimensional Φ_h-s_B Transition." *Macromolecules*, **24**, 953-957 (1991).

232. V. Percec and M. Lee. "Molecular Engineering of Liquid Crystal Polymers by Living Polymerization. 3. Influence of Molecular Weight on the Phase Transitions of Poly{8-[(4-cyano-4'-biphenyl)oxy]octyl vinyl ether} and of Poly{6-[4-cyano-4'-biphenyl)oxy]hexyl vinyl ether}." *Macromolecules*, **24**, 1017-1024 (1991).

233. G. Ungar, J. L. Feijoo, V. Percec and R. Yourd. "Liquid Crystalline Polyethers Based on Conformational Isomerism. 15. Smectic and Crystalline Phases in Copolyethers Based on 1,2-Bis(4-hydroxyphenyl)ethane and Combinations of 1,10-Dibromodecane with 1,12-Dibromododecane, and of 1,8-Dibromooctane with 1,12-Dibromododecane." *Macromolecules*, **24**, 1168-1174 (1991).

234. G. Ungar, V. Percec and R. Rodenhouse. "Liquid Crystal Polymers Containing Macroheterocyclic Ligands. 5. Structure of the Liquid Crystal Phases of Poly[4-(11-methacryloylundecan-1-yl)oxy]-4'-(4'-carboxybenzo-15-crown-5)biphenyl]." *Macromolecules*, **24**, 1996-2002 (1991).

235. D. Gu, A. M. Jamieson, C. Rosenblatt, D. Tomazos, M. Lee and V. Percec. "Dynamic Light Scattering From a Nematic Monodomain Containing a Side-Chain Liquid Crystal Polymer in a Nematic Solvent." *Macromolecules*, **24**, 2385-2390 (1991).

236. V. Percec and M. Lee. "Molecular Engineering of Liquid Crystal Polymers by Living Polymerization. 10. Influence of Molecular Weight on the Phase Transitions of Poly{ω-[(4-cyano-4'-biphenyl)oxy]alkyl vinyl ether}s with Nonyl and Decanyl Alkyl Groups." *Macromolecules*, **24**, 2780-2788 (1991).

237. V. Percec, C. G. Cho and C. Pugh. "Cyclotrimerization versus Cyclotetramerization in Electrophilic Oligomerization of 3,4-Bis(methyloxy)benzyl Derivatives." *Macromolecules*, **24**, 3227-3234 (1991).

238. V. Percec, J. Heck and G. Ungar. "Liquid Crystalline Polymers Containing Mesogenic Units Based on Half-Disc and Rodlike Moieties. 5. Side Chain Liquid Crystalline Poly(methylsiloxane)s Containing Hemiphasmidic Mesogens Based on 4-[[3,4,5-Tri(alkan-1-yloxy)benzoyl]oxy]-4'-[[*p*-(propan-1-yloxy)benzoyl]oxy]biphenyl Groups." *Macromolecules*, **24**, 4957-4962 (1991).

239. V. Percec and M. Lee. "Molecular Engineering of Liquid Crystal Polymers by Living Polymerization. 14. Synthesis and Characterization of Binary Copolymers of ω-[4-Cyano-4'-biphenyl)oxy]alkyl Vinyl Ethers Containing Undecanyl

and Hexyl, Pentyl and Propyl, and Undecanyl and Propyl Pairs of Alkyl Groups." *Macromolecules*, **24**, 4963-4971 (1991).

240. V. Percec, R. S. Clough, P. L. Rinaldi and V. E. Litman. "Termination by Reductive Elimination in the Polyetherification of Bis(aryl chloride)s, Activated by Carbonyl Groups, with Bisphenolates." *Macromolecules*, **24**, 5889-5892 (1991).

241. V. Percec and M. Kawasumi. "Liquid Crystalline Polyethers Based on Conformational Isomerism. 18. Polyethers Based on a Combined Mesogenic Unit Containing Rigid and Flexible Groups: 1-(4-Hydroxy-4'-biphenyl)-2-(4-hydroxyphenyl)butane." *Macromolecules*, **24**, 6318-6324 (1991).

242. C. Pugh and V. Percec. "Phase Transfer Pd(0) Catalyzed Polymerization Reactions. 6. Synthesis and Thermotropic Behavior of Mono- and Difluorinated 1,2-(4,4'-di-n-alkoxyphenyl)acetylene Monomers." *Chem. Mater.*, **3**, 107-115 (1991).

243. V. Percec, C. G. Cho and C. Pugh. "Alkyloxy-Substituted CTTV Derivatives That Exhibit Columnar Mesophases." *J. Mater. Chem.*, **1**, 217-222 (1991).

244. V. Percec, Q. Zheng and M. Lee. "Molecular Engineering of Liquid Crystal Polymers by Living Polymerization. 13. Synthesis and Living Cationic Polymerization of (*S*)-(-)-2-Methylbutyl 4'-(ω-Vinyloxy)-alkoxybiphenyl-4-carboxylate with Undecanyl and Hexyl Alkyl Groups." *J. Mater. Chem*, **1**, 611-619 (1991).

245. C. Pugh and V. Percec. "Columnar Mesophases of Cyclic Trimers of Disubstituted Acetylenes." *J. Mater. Chem.*, **1**, 765-773 (1991).

246. V. Percec and M. Lee. "Molecular Engineering of Liquid-crystalline Polymers by Living Polymerization. 15. Molecular Design of Re-entrant Nematic Mesophases in Binary Copolymers of 4-(ω-Vinyloxyalkoxy)biphenyl)-4-yl Cyanides." *J. Mater. Chem.*, **1**, 1007-1015 (1991).

247. V. Percec, Q. Zheng and M. Lee. "Molecular Engineering of Liquid Crystal Polymers by Living Polymerization. 16. Tailor-Made S_C* Mesophase in Copolymers of (S)-(-)-2-Methylbutyl-4'-(ω-Vinyloxyalkoxy)biphenyl-4-carboxylate with Undecanyl and Octyl Alkyl Groups." *J. Mater. Chem.*, **1**, 1015-1022 (1991).

248. V. Percec and J. H. Wang. "Synthesis of Aromatic Polyethers by Scholl Reaction. 9. Cation-Radical Polymerization of 4,4'-Bis(2-naphthoxy)diphenyl Sulphone." *J. Mater. Chem.*, **1**, 1051-1056 (1991).

249. R. Rodenhouse and V. Percec. "Liquid Crystalline Polymers Containing Macroheterocyclic Ligands. 6. Synthesis of Mesomorphic Polymers Containing Crown Ethers by Cationic Cyclopolymerization and Cyclocopolymerization of 1,2-Bis(2-ethenyloxyethoxy)benzene Derivatives Containing Mesogenic Side Groups." *Adv. Mater.*, **3**, 101-104 (1991).

250. C. Pugh, S. K. Andersson and V. Percec. "Phase Transfer Pd(0)/Cu(I) Catalysed Polymerization Reactions. 7. Synthesis and Thermotropic Behaviour of 1,4-Bis[2-(3',3"-difluoro-4',4"-di-*n*-alkyloxyphenyl)ethynyl]benzene Dimers." *Liq. Cryst.*, **10**, 229-242 (1991).

251. R. Rodenhouse and V. Percec. "Liquid Crystal Polymers Containing Macroheterocyclic Ligands. 7. Synthesis and Characterization of 4-[(4-methoacryloyloxy)-undecyloxy-2-methylphenylethynyl]phenyl (benzo-15-crown-5)-4'-carboxylate." *Makromol. Chem.*, **192**, 1873-1879 (1991).

252. V. Percec and M. Lee. "Molecular Engineering of Liquid Crystal Polymers by Living Polymerization. VIII. Influence of Molecular Weight on the Phase Behavior of Poly{ω-[(4-cyano-4'-biphenyl)oxy]alkyl Vinyl Ether}s with Ethyl, Propyl and Butyl Alkyl Groups." *J. Macromol. Sci.-Chem.*, **A28**, 651-672 (1991).

253. V. Percec and C. S. Wang. "Synthesis and Characterization of Poly(methylsiloxane)s Containing 4-[*S*(-)-2-methyl-1-butoxy]-4'-[*p*-(ω-alkan-1-yloxy)benzoyloxy]-α-methylstilbene Side Groups." *J. Macromol. Sci.-Chem.*, **A28**, 687-713 (1991).

254. V. Percec and C. S. Wang. "Synthesis and Characterization of Poly(methylsiloxane)s Containing 5-[S(-)-2-methyl-1-butyl]-2-[4-(11-undecan-1-yloxy)phenyl]-1,3,2-dioxabori-nane and 2-{4-[S(-)-2-methyl-1-butoxy]phenyl}-5-(11-

undecan-1-yl)-1,3,2-dioxaborinane Constitutional Isomeric Side Groups." *Macromolecular Reports*, **A28**, 85-94 (1991).

255. V. Percec and J. H. Wang. "Free Radical Copolymerization of ω-(*p*-Vinylbenzyl ether) Macromonomer of Poly(2,6-dimethyl-1,4-phenylene oxide) with Methyl Methacrylate in the Presence of Different Initiators." *Macromolecular Reports*, **A28**, 221-231 (1991).

256. V. Percec, C. S. Wang and M. Lee. "Molecular Engineering of Liquid Crystal Polymers by Living Polymerization. 12. Synthesis and Living Cationic Polymerization of 4-[S(-)-2-methyl-1-butoxy]-4'-(ω-oxyalkyl-1-vinyl ether)-α-methylstilbene with Octyl and Hexyl Alkyl Groups." *Polym. Bull.*, **26**, 15-22 (1991).

257. V. Percec, C. G. Cho, C. Pugh and D. Tomazos. "Synthesis and Characterization of Branched Liquid Crystalline Polyethers Containing Cyclotetraveratrylene-Based Disklike Mesogens." *Macromolecules*, **25**, 1164-1176 (1992).

258. V. Percec, M. Lee and C. Ackerman. "Molecular Engineering of Liquid Crystal Polymers by Living Polymerization: 9. Living Cationic Polymerization of 5-[(4-cyano-4'-biphenyl)oxy]pentyl Vinyl Ether and 7-[(4-cyano-4'-biphenyl)oxy]heptyl Vinyl Ether, and the Mesomorphic Behaviour of the Resulting Polymers." *Polymer*, **33**, 703-711 (1992).

259. J. Kunzler and V. Percec. "The Polymerization of Alkyl Substituted Acetylenes using Metal Halides Based Initiators: The Bulky Substituent Effect." *Polym. Bull.*, **29**, 335-342 (1992).

260. V. Percec and J. H. Wang. "α-(4-Bromo-2,6-Dimethylphenoxy)-ω-(3,5-Dimethyl-4-Hydroxyphenyl)-Poly(2,6-Dimethyl-1,4-Phenylene Oxide)." *Macromolecular Synthesis*, **11**, 95-98 (1992).

261. V. Percec and J. H. Wang. "α-(4-tert-Butyl-2,6-Dimethylphenoxy)-ω-(3,5-Dimethyl-4-Hydroxyphenyl)-Poly(2,6-Dimethyl-1,4-Phenylene Oxide)." *Macromolecular Synthesis*, **11**, 99-103 (1992).

262. V. Percec and J. H. Wang. "ω-(Vinyl Benzyl Ether) Macromonomer of Poly(2,6-Dimethyl-1,4-Phenylene Oxide)." *Macromolecular Synthesis*, **11**, 105-111 (1992).

263. V. Percec and C. S. Wang. "Synthesis and Characterization of Polymethacrylates, Polyacrylates and Poly(methylsiloxane)s Containing 4-[*S*(-)-2-methyl-1-butoxy]-4'-(ω-alkan-1-oxy)-α-methylstilbene Side Groups." *J. Macromol. Sci. Pure Appl. Chem.*, **A29**, 99-121 (1992).

264. V. Percec, S. Okita and J. H. Wang. "Synthesis of Aromatic Polyethers by Scholl Reaction. VI. Aromatic Polyethers by Cation-Radical Polymerization of 4,4'-, 3,3'- and 2,2'-Bis(1-naphthoxy)biphenyls and of 1,3-Bis(1-naphthoxy)benzene." *Macromolecules*, **25**, 64-74 (1992).

265. G. Ungar, V. Percec and M. Zuber. "Liquid Crystalline Polyethers Based on Conformational Isomerism. 20. Nematic-Nematic Transition in Polyethers and Copolyethers Based on 1-(4-Hydroxyphenyl)-2-(2-R-4-hydroxyphenyl)ethane with R = Floro, Cloro and Methyl and Flexible Spacers Containing an Odd Number of Methylene Units." *Macromolecules*, **25**, 75-80 (1992).

266. J. Höpken, M. Möller, M. Lee and V. Percec. "Synthesis of Poly(vinyl ether)s with Perfluoroalkyl Pendant Groups." *Makromol. Chem.*, **193**, 275-284 (1992).

267. U. W. Gedde, H. Jonsson, A. Hult and V. Percec. "Phase Transitions in Narrow-Molar-Mass Samples of Side-Chain Liquid-Crystalline Polymers: Molar-Mass Dependence." *Polymer*, **33**, 4352-4357 (1992).

268. H. Jonsson, V. Percec, U. W. Gedde and A. Hult. "Cationic Bulk Polymerization of Vinyl Ethers in the Liquid Crystalline Phase." *Makromol. Chem. Macromol. Symp.*, **54/55**, 83-94 (1992).

269. V. Percec, C. Pugh, E. Cramer, S. Okita and R. Weiss. "Pd(0) and Ni(0) Catalyzed Polymerization Reactions." *Makromol. Chem., Macromol. Symp.*, **54/55**, 113-150 (1992).

270. V. Percec, J. H. Wang and R.S. Clough. "Mechanisms of the Aromatic Polyetherification Reactions." *Makromol. Chem. Macromol. Symp.*, **54/55**, 275-312 (1992).

271. V. Percec and J. H. Wang. "Synthesis of Aromatic Polyethers by Cation-Radical Polymerization." *Makromol. Chem. Macromol. Symp.*, **54/55**, 337-356 (1992).

272. V. Percec and J. H. Wang. "The Synthesis and Reactivity of ω-(*p*-Vinylbenzyl ether) Macromonomer of Poly(2,6-dimethyl-1,4-phenylene ether)." *Makromol. Chem., Macromol. Symp.*, **54/55**, 561-581 (1992).

273. V. Percec, J. H. Wang and S. Okita. "Synthesis of Aromatic Polyethers by Scholl Reaction. VII. Oxidative Polymerization of 2,2.Bis[4-(1-Naphthoxy)phenyl]propane and 2,2-Bis[4-(1-Naphthyl)phenyl]propane." *J. Polym. Sci: Part A: Polym. Chem.*, **30**, 429-438 (1992).

274. V. Percec, J. H. Wang and Y. Oishi. "Synthesis of Aromatic Polyethers by Scholl Reaction. VIII. On the Polymerizability of 1,5-Bis(phenoxy)pentanes with 1,5-Bis(phenylthio)pentane." *J. Polym. Sci. Part A: Polym. Chem.*, **30**, 439-448 (1992).

275. V. Percec and M. Zuber. "Liquid Crystalline Polyethers Based on Conformational Isomerism. XIX. Synthesis and Characterization of Flexible Polyethers Based on 1-(4-Hydroxyphenyl)-2-(2-R-4-hydroxyphenyl)ethane with H, F, CH_3, Br, Cl and CF_3 as R Groups." *J. Polym. Sci. Part A: Polym. Chem.*, **30**, 997-1016 (1992).

276. V. Percec and S. Okita. "Soluble Polyarylenes Containing Alternating Binaphthylene and Biphenylene Structural Units." *J. Polym. Sci. Part A: Polym. Chem.*, **30**, 1037-1049 (1992).

277. V. Percec, M. Lee, P. L. Rinaldi and V. E. Litman. "Molecular Engineering of Liquid Crystalline Polymers by Living Polymerization. XVII. Characterization of Poly{10-[(4-Cyano-4'-Biphenyl)oxy]decanyl Vinyl Ether}s by 1-D and 2-D ^{1}H-NMR Spectroscopy." *J. Polym. Sci. Part A: Polym. Chem.*, **30**, 1213-1217 (1992).

278. V. Percec, H. Jonsson and D. Tomazos. "Reactions and Interactions in Liquid Crystalline Media" in *Polymerization in Organized Media*, C. M. Paleos Ed., Gordon and Breach: New York, 1-104, (1992).

279. V. Percec, M. Zuber, G. Ungar and A. Alvarez-Castillo. "Liquid Crystalline Polymers Based on Conformational Isomerism. 21. Towards the Molecular Engineering of Hexagonal Columnar (Φ_h) Mesophase Exhibited by Flexible Copolyethers Based on 1-(4-Hydroxyphenyl)-2-(2-R-4-Hydroxyphenyl)Ethane with R = H, F and Flexible Spacers." *Macromolecules*, **25**, 1193-1197 (1992).

280. V. Percec, S. Okita and R. Weiss. "Synthesis of Functional Poly(*p*-phenylene)s from Substituted Hydroquinones via Nickel Catalyzed Coupling of their Bistriflates." *Macromolecules*, **25**, 1816-1823 (1992).

281. V. Percec, J. H. Wang and L. Yu. "Synthesis of Aromatic Polyethers by Scholl Reaction. X. Synthesis and Cation-Radical Polymerization of 1,5-Bis(1-naphthoxy)-3-oxapentane." *Polym. Bull.*, **27**, 503-510 (1992).

282. V. Percec, M. Zuber, S. Z. D. Cheng and A. Q. Zhang. "Liquid Crystalline Polyethers based on Conformational Isomerism. 22. Hexagonal Columnar Mesophase in Polyethers based on 1,4-Bis[2-(4-hydroxyphenyl)ethyl]benzene, 1,2-Bis(4-hydroxyphenyl)ethane and 1,9-Dibromononane." *J. Mater. Chem.*, **2**, 407-414 (1992).

283. M.A. Yandrasits, S. Z. D. Cheng, A. Zhang, J. Cheng, B. Wunderlich and V. Percec. "Mesophase Behavior in Thermotropic Polyethers Based on the Semiflexible Mesogen 1-(4-Hydroxyphenyl)-2-(2-methyl-4-hydroxyphenyl)ethane." *Macromolecules*, **25**, 2112-2121 (1992).

284. D.F. Gu, A. M. Jamieson, M. Kawasumi, M. Lee and V. Percec. "Dynamic Light Scattering from Nematic Monodomains Containing Mesogenic Polymers of Differing Architectures." *Macromolecules*, **25**, 2151-2155 (1992).

285. V. Percec and Q. Zheng. "Molecular Engineering of Liquid Crystalline Polymers by Living Polymerization. 18. S_C^* Mesophase in Copolymers of (2*S*, 3*S*)-(+)-2-Chloro-3-Methylpentyl-4'-(ω-Vinyloxyalkyloxy)biphenyl-4-carboxylate with Undecanyl and Octyl Alkyl Groups." *J. Mater. Chem.*, **2**, 475-486 (1992).

286. V. Percec and D. Tomazos. "Molecular Engineering of Liquid Crystalline Polymers" in *Comprehensive Polymer Science*, First Supplement, G. Allen Ed., Pergamon: Oxford, 299-383 (1992).

287. V. Percec and M. Lee. "Molecular Engineering of Liquid Crystalline Polymers by Living Polymerization. XIX. Synthesis and Characterization of Poly[2-(4-Biphenyloxy)ethyl Vinyl Ether]." *J. Macromol. Sci. Pure Appl. Chem.*, **A29**, 655-668 (1992).

288. V. Percec, G. Johansson and R. Rodenhouse. "Molecular Recognition Directed Phase Transitions in Liquid Crystalline Polymers Containing Crown Ethers." *Macromolecules*, **25**, 2563-2565 (1992).

289. V. Percec and M. Lee. "Molecular Engineering of Liquid Crystal Polymers by Living Polymerization. 20. Synthesis and Characterization of Binary Copolymers of [11-(4'-Cyanobiphenyl-4-yloxy]undecanyloxy]ethylene with *n*-Butyl Vinyl Ether and of 2-[(4'-Cyanobiphenyl-4-yl)oxy]ethyl Vinyl Ether with (*n*-Butoxy)ethylene." *J. Mater. Chem.*, **2**, 617-623 (1992).

290. V. Percec, M. Lee and D. Tomazos. "Molecular Engineering of Liquid Crystalline Polymers by Living Cationic Polymerization. 21. Synthesis and Characterization of Poly{3-[(4-Cyano-4'-Biphenyl)oxy]propyl Vinyl Ether} Macromonomers." *Polym. Bull.*, **28**, 9-15 (1992).

291. V. Percec, M. Lee and Q. Zheng. "Molecular Engineering of Liquid Crystalline Polymers by Living Polymerization. XXII. Synthesis and Characterization of Binary Copolymers of 11-[4-Cyano-4'-biphenyl)oxy]undecanyl Vinyl Ether with (2*S*, 3*S*)-(+)-2-Chloro-3-methylpentyl-4'-(8-vinyloxyoctyloxy)biphenyl-4-carboxylate and of (2*S*, 3*S*)-(+)-2-Chloro-3-methylpentyl-4'-(8-vinyloxyoctyloxy)biphenyl-4-carboxylate with 3-[4-Cyano-4'-biphenyl)oxy]propyl Vinyl Ether." *Liq. Cryst* ., **12**, 715-734 (1992).

292. V. Percec and M. Kawasumi. "Liquid Crystalline Polyethers Based on Conformational Isomerism. 23. Synthesis and Characterization of a Thermotropic Liquid Crystalline Dendrimer." *Macromolecules*, **25**, 3843-3850 (1992).

293. V. Percec and M. Lee. "Molecular Engineering of Liquid Crystal Polymers by Living Polymerization. 23. Synthesis and Characterization of AB Block Copolymers Based on ω-[(4-Cyano-4'-biphenyl)oxy]alkyl Vinyl Ether, 1*H*, 1*H*, 2*H*, 2*H*-Perfluorodecyl Vinyl Ether, and 2-(4-Biphenyloxy)ethyl Vinyl Ether with 1*H*, 1*H*, 2*H*, 2*H*-Perfluorodecyl Vinyl Ether." *J. Macromol. Sci. Pure Appl. Chem.*, **A29**, 723-740 (1992).

294. V. Percec, M. Kawasumi, P. L. Rinaldi and V. E. Litman. "Liquid Crystalline Polyethers Based on Conformational Isomerism. 24. Synthesis and Characterization of Cyclic Liquid Crystalline Oligomers Based on 1-(4-Hydroxy-4'-biphenyl)-2-(4-hydroxyphenyl)butane and 1,10-Dibromodecane." *Macromolecules*, **25**, 3851-3861 (1992).

295. V. Percec and D. Tomazos. "Molecular Engineering of Side Chain Liquid Crystalline Polymers" in *Contemporary Topics in Polymer Science* Vol. 7: "Advances in New Materials." J. C. Salamone and J. Riffle Eds., Plenum: New York, 247-268 (1992).

296. V. Percec, M. Lee, J. Heck, H. Blackwell, G. Ungar and A. Alvarez-Castillo. "A Re-Entrant Isotropic Phase in a Supramolecular Disc-Like Oligomer of 4-[3, 4, 5-Tris(*n*-dodecanyloxy)benzoyloxy]-4'-[(2-vinyloxy)ethoxy]biphenyl." *J. Mater. Chem.*, **2**, 931-938 (1992).

297. V. Percec, J. Heck, M. Lee, G. Ungar and A. Alvarez-Castillo. "Poly{2-vinyloxyethyl-3,4,5-tris[4-(*n*-dodecanyloxy)benzyloxy]benzoate}: A Self-Assembled Supramolecular Polymer Similar to Tobacco Mosaic Virus." *J. Mater. Chem.*, **2**, 1033-1039 (1992).

298. V. Percec and Q. Zheng. "Molecular Engineering of Liquid-Crystalline Polymers by Living Polymerization. 24. Synthesis of Poly(vinyl ether)s Exhibiting an S*C** Phase by Living Cationic Polymerization of (2*S*, 3*S*)-(+)-2-Chloro-3-methylpentyl 4'-(6-vinyloxyhexyloxy)biphenyl-4-carboxylate and its Copolymerization with (2*S*, 3*S*)-(+)-2-Chloro-3-methylpentyl 4'-(8-vinyloxyoctyloxy)biphenyl-4-ylcarboxylate." *J. Mater. Chem.*, **2**, 1041-1047 (1992).

299. V. Percec and D. Tomazos. "Molecular Engineering of Side-Chain Liquid-Crystalline Polymers by Living Cationic Polymerization." *Adv. Mater.*, **4**, 548-561 (1992).

300. V. Percec and M. Kawasumi. "Transformation of a Kinetically Prohibited Mesophase of a Linear Polymer into an Enantiotropic Mesophase via Cyclization." *Adv. Mater.*, **4**, 572-576 (1992).

301. V. Percec, S. Okita and J. Bae. "Synthesis of Soluble Polyarylenes Containing Alternating 4,4'-(1,1'-Binaphthyl) and 4,4'-(3,3'-Diphenyl)biphenyl Structural Units." *Polym. Bull.*, **29**, 271-392 (1992).

302. V. Percec and Q. Zheng. "Liquid Crystalline Networks via Living Cationic Polymerization of 11-[(4-Cyano-4'-biphenyl)oxy]undecanyl Vinyl Ether with 11-Vinyloxyundecanyloxy Methacrylate." *Polym. Bull.*, **29**, 485-492 (1992).

303. V. Percec and Q. Zheng. "Thermally Reactive Liquid Crystalline Copolymers Based on 11-[(4-Cyano-4'-biphenyl)oxy]undecanyl Vinyl Ether and 2-Vinyloxyethyloxy Methacrylate." *Polym. Bull.*, **29**, 493-500 (1992).

304. V. Percec and Q. Zheng. "Tailor Made Liquid Crystalline Networks Exhibiting a Chiral Smectic C (Sc*) Mesophase via Living Cationic Copolymerization." *Polym. Bull.*, **29**, 501-508 (1992).

305. J. Cheng, Y. Jin, B. Wunderlich, S. Z. D. Cheng, M. A. Yandrasits, A. Zhang and V. Percec. "Solid-State ^{13}C-NMR Studies of Molecular Motion in MBPE-9 and MBPE-5." *Macromolecules*, **25**, 5991-5999 (1992).

306. D.-F. Gu, A. M. Jamieson, M. S. Lee, M. Kawasumi and V. Percec. "Light Scattering from a Nematic Monodomain in an Electric Field. Twist Elastic Constant and Viscosity Coefficient of Nematic Polymer-Solvent Mixtures." *Liq. Cryst.*, **12**, 961-971 (1992).

307. J. L. Feijoo, G. Ungar and V. Percec. "Superheating of the Nematic Phase in Main Chain Polymers." *Mol. Cryst. Liq. Cryst.,* **231**, 129 (1993).

308. V. Tsukruk, J. H. Wendorff, V. Percec and M. Lee. "Structural Rearrangements During Mesomorphic Phase Transitions in Poly{10-[(4-Cyano-4'-biphenyl)oxy]decanyl Vinyl Ether}." *Polymer*, **34**, 481-486 (1993).

309. V. Percec and M. Kawasumi. "Transformation of a Kinetically Controlled Nematic Phase of a Linear Polymer into One which is Thermodynamically Controlled via Cyclization." *Liq. Cryst.*, **13**, 83-94 (1993).

310. V. Percec and S. Okita. "Synthesis and Ni(0)-Catalyzed Polymerization of Isomeric 4,4'''-Dichloroquaterphenyls." *J. Polym. Sci: Part A: Polym. Chem.*, **31**, 877-884 (1993).

311. V. Percec and S. Okita. "Nucleophilic Substitution Reactions of 1,4-Dichlorobenzene Chromium Tricarbonyl with Mono- and Diphenoxides." *J. Polym. Sci: Part A: Polym. Chem.*, **31**, 923-932 (1993).

312. V. Percec and S. Okita. "Synthesis and Ni(0) Catalyzed Polymerization of 2,5-Bis(4-chloro-1-naphthyl)biphenyl." *J. Polym. Sci: Part A: Polym. Chem.*, **31**, 1087-1091 (1993).

313. V. Percec and G. Johansson. "Self-Regulated Phase Transitions in Poly(4-{2-[4'-(11-vinyloxyundecyloxy)biphenyl-4-yl]ethyl}benzo-crown-15) and Poly(4-{2-[4'-(11-methacryloylundecyloxy)biphenyl-4-yl]ethyl}benzo-15-Crown-5} *via* Molecular Recognition." *J. Mater. Chem.*, **3**, 83-96 (1993).

314. V. Percec and D. Tomazos in "Recent Developments in Tailor-Made Liquid Crystalline Polymers" in *Frontiers in Macromolecular Chemistry*, special issue of *Indian J. Technol*., **31**, 339-392 (1993).

315. H. A. Schneider, V. Percec and Q. Zheng. "Effects of Monomer Structure and Copolymer Composition on the Glass Transition Temperature of Binary Liquid Crystalline Copoly(vinyl ether)s." *Polymer*, **34**, 2180-2184 (1993).

316. V. Percec and M. Kawasumi. "Similarities and Differences Between the Mesomorphic Behaviour of Oligomeric Macrocyclics and of Linear High Relative Molecular Mass Polyethers based on 1-(4-Hydroxybiphenyl-4-yl)-2-(4-hydroxyphenyl)butane and Flexible Spacers." *J. Chem. Soc. Perkin Trans. 1*, 1319-1334 (1993).

317. V. Percec, G. Johansson, J. Heck and G. Ungar. "Molecular Recognition Directed Self-Assembly of Supramolecular Cylindrical Channel-like Architectures from 6,7,9,10,12,13,15,16-Octahydro-1,4,7,10,13-pentaoxabenzocyclopentadecen-2-ylmethyl 3,4,5-Tris(*p*-dodecyloxybenzyl-oxy)benzoate." *J. Chem. Soc. Perkin Trans. 1.*, 1411-1420 (1993).

318. M. Hoff, A. Keller, J. A. Odell and V. Percec. "Crystallization-Induced Band Formation in Nematic Polyethers." *Polymer*, **34**, 1800-1805 (1993).

319. H. Fadel, V. Percec, Q. Zheng, R. C. Advincula and R. S. Duran. "Liquid Crystalline Poly(vinyl ether)s with Bulk Smectic C* Phases at the Air/Water Interface." *Macromolecules*, **26**, 1650-1655 (1993).

320. V. Percec, R. S. Clough, M. Grigoras, P. L. Rinaldi and V. E. Litman. "Reductive Dehalogenation Versus Substitution in the Polyetherification of 4,4'-Dihalodiphenyl Sulfones with Bisphenolates." *Macromolecules*, **26**, 3650-3662 (1993).

321. V. Percec and M. Kawasumi. "Effect of Molecular Weight on the Phase Behavior of Linear and Macrocyclic Oligoethers and of Linear Polyethers Based on 1-(4-Hydroxy-4'-biphenylyl)-2-(4-hydroxyphenyl)butane and 1,10-Dibromodecane." *Macromolecules*, **26**, 3663-3675 (1993).

322. V. Percec and M. Kawasumi. "Absence of Chiral Molecular Recognition in Irregular Linear and Macrocyclic Liquid Crystalline Polyethers Based on 1-(4-Hydroxy-4'-biphenylyl)-2-(4-hydroxyphenyl)butane and α,ω-Dibromoalkanes." *Macromolecules*, **26**, 3917-3928 (1993).

323. S. H. Ou, V. Percec, J. A. Mann, J. B. Lando, L. Zhou and K. D. Singer. "Polar Polymeric Langmuir-Blodgett Films Containing Nitrobiphenyl Groups." *Macromolecules*, **26**, 7263-7273 (1993).

324. V. Percec and D. Tomazos. "Mesomorphic Polyelectrolites Based on Side-Chain Liquid-Crystalline Polymers Containing End-On Fixed Mesogens and Oligooxyethylenic Spacers." *J. Mater. Chem.*, **3**, 633-642 (1993).

325. V. Percec and D. Tomazos. "Mesomorphic Polyelectrolites Based on Side Chain Liquid Crystalline Polymers Containing Side-On Fixed Mesogens and Oligooxyethylenic Spacers." *J. Mater. Chem.*, **3**, 643-650 (1993).

326. J. Chen, A. Zhang, M. A. Yandrasits, S. Z. D. Cheng and V. Percec. "Crystal Structure and Mesophase Morphology of MBPE Polyethers Containing Odd-Number Methylene Spacers." *Makromol. Chem.*, **194**, 3135-3148 (1993).

327. V. Percec and M. Kawasumi. "Noncrystallizable Macrocyclics Exhibiting Enantiotropic Liquid Crystalline Phases." *Chem. Mater.*, **5**, 826-834 (1993).

328. V. Percec and M. Kawasumi. "Macrocyclics with Clearing Temperatures Higher Than Their Linear High-Molecular-Weight Homologues." *J. Mater. Chem.*, **3**, 725-734 (1993).

329. Gu, S. R. Smith, A. M. Jamieson, M. Lee and V. Percec. "Dependence of Viscoelastic Properties on Spacer Length and Molecular Weight for a Side-Chain Liquid Crystalline Polymer in a Nematic Solvent." *J. Phys. II (France)*, **3**, 937-949 (1993).

330. V. Percec, J. Heck, D. Tomazos and G. Ungar. "The Influence of Complexation of Sodium and Lithium Triflate on the Self-Assembly of Tubular-Supramolecular Architectures Displaying a Columnar Mesophase Based on Taper-Shaped Monoesters of Oligooxyethylene Oxide with 3,4,5-Tris[*p*-(*n*-dodecan-1-yloxy)benzyloxy]benzoic Acid and of their Polymethacrylates." *J. Chem. Soc. Perkin Trans. 2.*, 2381-2388 (1993).

331. J. F. Li, V. Percec and C. Rosenblatt. "Nearly-Second-Order Nematic-Isotropic Phase Transition in a Cyclic Thermotropic Liquid Crystal." *Phys. Rev. E*, **48**, R1-R4 (1993).

332. V. Percec, J. Heck, D. Tomazos, F. Falkenberg, H. Blackwell and G. Ungar. "Self-Assembly of Taper-Shaped Monoesters of Oligo(ethylene oxide) with 3,4,5-Tris(p-dodecyloxybenzyloxy)benzoic Acid and of their Polymethacrylates into Tubular Supramolecular Architectures Displaying a Columnar Mesophase." *J. Chem. Soc. Perkin Trans.1*, 2799-2811 (1993).

333. M.A. Yandrasits, J. Chen, F. E. Arnold Jr., S. Z. D. Cheng and V. Percec. "Crystallization Behavior of Polyethers Containing Odd Numbers of Methylene Spacers from the Isotropic and Liquid Crystalline States." *Polym. Adv. Technol.*, **5**, 775-784 (1994).

334. V. Percec and M. Kawasumi. "At the Borderline between Glassy, Crystalline and Liquid Crystalline Macrocyclics." *Mol. Cryst. Liq. Cryst.*, **238**, 21-37 (1994).

335. Z. Z. Zhong, W. L. Gordon, D. E. Schuele, R. B. Akins and V. Percec. "Dielectric Relaxations of a Smectic Side-Chain Liquid-Crystalline Polymer in Different Alignment States." *Mol. Cryst. Liq. Cryst.*, **238**, 129-145 (1994).

336. A. Hoff, A. Keller, J. A. Odell and V. Percec. "Large Scale Textures in Nematic Polyethers. 1. New Aspects of Formation." *Mol. Cryst. Liq. Cryst.*, **241**, 221-229 (1994).

337. M. Hoff, A. Keller, J. A. Odell and V. Percec. "Large Scale Textures in Nematic Polyethers. 2. New Aspects of Orientational Order and Structure Hierarchy." *Mol. Cryst. Liq. Cryst.*, **241**, 231-242 (1994).

338. V. Percec and Q. Zheng. "Synthesis and Mesomorphic Behavior of Poly[(2*S*, 3*S*)-(+)-2-chloro-3-methylpentyl 4'-(ω-vinyloxyalkyloxy)biphenyl-4-carboxylate]s with Ethyl and Propyl Alkyl Groups." *Polym. Bull.*, **32**, 249-256 (1994).

339. G. Ungar, V. Percec and M. Zuber. "Influence of Molecular Structure on the Nematic-Nematic Transition in Polyethers Based on 1-(4-Hydroxyphenyl)-2-(2-R-4-hydroxyphenyl)ethane where R=CH_3 and Cl, and Flexible Spacers with an Odd Number of Methylene Units." *Polym. Bull.*, **32**, 325-330 (1994).

340. V. Percec, H. Oda, P. L. Rinaldi and D. R. Hensley. "Chiral Recognition in Molecular and Macromolecular Pairs of Liquid Crystals of (2*R*, 3*S*)- and (2*S*, 3*S*)-2-Fluoro-3-methylpentyl 4'-[[11-(vinyloxy)undecanyl]oxy]biphenyl-4-carboxylate Diastereomers." *Macromolecules*, **27**, 12-25 (1994).

341. V. Percec, R. S. Clough, P. L. Rinaldi and V. E. Litman. "Reductive Dehalogenation versus Substitution in the Polyetherification of Bis(aryl chloride)s Activated by Carbonyl Groups with Hydroquinones: A Potential Competition Between SET and Polar Pathways." *Macromolecules*, **27**, 1535-1547 (1994).

342. S. H. Ou, V. Percec, J. A. Mann and J. B. Lando. "Noncentrosymmetric Langmuir-Blodgett Films Containing Nitrobiphenyl Groups." *Langmuir*, **10**, 905-911 (1994).

343. D. Tomazos, R. Out, J. Heck, G. Johansson, V. Percec and M. Moeller. "Isomorphism Within the Hexagonal Columnar Mesophase of Molecular and Macromolecular Self- and Co-Assembled Columns Containing Tapered Groups." *Liq. Cryst.*, **16**, 509-527 (1994).

344. G. Johansson, V. Percec, G. Ungar and D. Abramic. "Molecular Recognition Directed Self-Assembly of Tubular Liquid Crystalline and Crystalline Supramolecular Architectures from Taper Shaped (15-crown-5)methyl 3,4,5-Tris(*p*-alkoxybenzyloxy)benzoates and (15-crown-5)methyl 3,4,5-Tris(*p*-dodecyloxy)benzoate." *J. Chem. Soc. Perkin Trans. 1*, 447-459 (1994).

345. V. Percec, D. Tomazos, J. Heck, H. Blackwell and G. Ungar. "Self-Assembly of Taper-Shaped Monoesters of Oligo(ethylene oxide) with 3,4,5-Tris(*n*-dodecan-1-yloxy)benzoic Acid and of Their Polymethacrylates into Tubular Supramolecular Architectures Displaying a Columnar Hexagonal Mesophase." *J. Chem. Soc. Perkin Trans. 2.*, 31-44 (1994).

346. J. F. Li, V. Percec, C. Rosenblatt and O. Lavrentovich. "Biaxiality in a Cyclic Thermotropic Nematic Liquid Crystal." *Europhys. Lett.*, **25**, 199-204 (1994).

347. V. Percec, P. Chu, G. Ungar, S. Z. D. Cheng and Y. Yoon. "Liquid-Crystalline Polyethers Based on Conformational Isomerism. 33. Thermotropic Polyethers Based on a Mesogenic Group Containing Rigid and Flexible Units: 1-(4'-Hydroxy-biphenyl-4-yl)-2-(4-hydroxyphenyl)propane." *J. Mater. Chem.*, **4**, 719-727 (1994).

348. V. Percec, J. Heck, G. Johansson, D. Tomazos and G. Ungar. "Towards Tobacco Mosaic Virus-Like Self-Assembled Supramolecular Architectures." *Macromol. Symp.*, **77**, 237-265 (1994).

349. V. Percec and Y. Imanishi, Eds. "6th US-Japan Seminar on Polymer Synthesis: Macromolecular Design for Advanced Materials." *J. Macromol. Sci. Pure Appl. Chem.*, **A31**, xi-xiii (1994).

350. V. Percec, J. Heck, G. Johansson, D. Tomazos, M. Kawasumi and G. Ungar. "Molecular Recognition Directed Self-Assembly of Supramolecular Polymers." *J. Macromol. Sci. Pure Appl. Chem.*, **A31**, 1031-1070 (1994).

351. V. Percec, J. Heck, G. Johansson, D. Tomazos, M. Kawasumi, P. Chu and G. Ungar. "Molecular Recognition Directed Self-Assembly of Supramolecular Architectures." *J. Macromol. Sci. Pure Appl. Chem.*, **A31**, 1719-1758 (1994).

352. V. Percec, J. Heck, G. Johansson, D. Tomazos, M. Kawasumi, P. Chu and G. Ungar. "Molecular Recognition Directed Self-Assembly of Supramolecular Liquid Crystals." *Mol. Cryst. Liq. Cryst.*, **254**, 137-196 (1994).

353. V. Percec, P. Chu and M. Kawasumi. "Toward 'Willowlike' Thermotropic Dendrimers." *Macromolecules*, **27**, 4441-4453 (1994).

354. V. Percec and H. Oda. "Polymer Effect on Heterochiral Molecular Recognition in Molecular and Macromolecular Pairs of Liquid Crystals of (*R*)- and (*S*)-2-Chloro-4-methylpentyl 4'-[(8-(Vinyloxy)octyl)oxy]biphenyl-4-carboxylate Enantiomers." *Macromolecules*, **27**, 4454-4470 (1994).

355. V. Percec and H. Oda. "Heterochiral Interactions in Molecular and Macromolecular Pairs of Liquid Crystals of (*R*)- and (*S*)-2-Fluoro-4-methylpentyl 4'-((8-(Vinyloxy)octyl)oxy)biphenyl-4-carboxylate Enantiomers." *Macromolecules*, **27**, 5821-5832 (1994).

356. Y. K. Kwon, S. Chvalun, A. I. Schneider, J. Blackwell, V. Percec and J. Heck. "Supramolecular Tubular Structures of a Polymethacrylate with Tapered Side Groups in Aligned Hexagonal Phases." *Macromolecules*, **27**, 6129-6132 (1994).

357. M. Hikosaka, K. Mabuchi, K. Yonetake, T. Masuko, G. Ungar and V. Percec. "Liquid Crystallization Mechanism of Liquid Crystalline Polymers" in *Ordering in Macromolecular Systems*, A. Teramoto, M. Kosayashi and T. Norisuye Eds., Springer Verlag: New York, 89-97 (1994).

358. G. Ungar, S. V. Batty, V. Percec, J. Heck and G. Johansson. "Structure and Conductivity of Liquid Crystal Channel-like Ionic Complexes of Taper-Shaped Compounds." *Adv. Mater. Opt. Electr.*, **4**, 303-313 (1994).

359. M. H. Sherwood, G. Sigaud, D. Y. Yoon, C. G. Wade, M. Kawasumi and V. Percec. "Molecular Order in the Nematic Melt of a Semiflexible Polyether by Deuteron NMR." *Mol. Cryst. Liq Cryst.*, **254**, 455-468 (1994).

360. F. Li, J. A. Heck, V. Percec, C. Rosenblatt, J. S. Collura and M. R. Fisch. "Optical Studies of Supramolecular Tubular Structures Generate by Taper-Shaped Side Groups in the Columnar Hexagonal Phase." *J. Phys. II (France)*, **4**, 1813-1822 (1994).

361. Y. K. Kwon, C. Danko, S. Chvalun, J. Blackwell, J. Heck and V. Percec. "Comparison of the Supramolecular Structures Formed by a Polymethacrylate with a Highly Tapered Side Chain and its Unpolymerized Monomer." *Macromol. Symp.*, **87**, 103-114 (1994).

362. D. P. Heberer, J. A. Odell and V. Percec. "Rheology and Flow-Induced Liquid Crystal Phase Transitions in Thermotropic Polyethers." *J. Mater. Sci.,* **29**, 3477-3483 (1994).

363. L. Chen, A. M. Jamieson, M. Kawasumi and V. Percec. "Viscoelastic Properties of Dilute Nematic Mixtures Containing Cyclic and Hyperbranched Liquid Crystal Polymers Dissolved in a Nematic Solvent." *J. Polym. Sci. Part B: Polym. Phys.*, **33**, 1213-1223 (1995).

364. M. Trollsas, A. Hult and V. Percec. "Synthesis and Characterization of Novel Sulphonyl-Containing Liquid-Crystalline Side Chain Poly(vinyl ether)s." *Macromol. Chem. Phys.*, **196**, 1821-1837 (1995).

365. V. Percec, J.-Y. Bae, M. Zhao and D. H. Hill. "Aryl Mesylates in Metal Catalyzed Homo- and Cross-Coupling Reactions. 1. Functional Symmetrical Biaryls from Phenols via Nickel-Catalyzed Homocoupling of their Mesylates." *J. Org. Chem.*, **60**, 176-185 (1995).

366. Y. K. Kwon, S. Chvalun, J. Blackwell, V. Percec and J. Heck. "Effect of Temperature on the Supramolecular Tubular Structure in Oriented Fibers of a Poly(Methacrylate) with Tapered Side Groups." *Macromolecules*, **28**, 1552-1558 (1995).

367. F. Hardouin, G. Sigaud, M. F. Achard, A. Brûlet, J. P. Cotton, D. Y. Yoon, V. Percec and M. Kawasumi. "A SANS Study of a Semiflexible Main Chain Liquid Crystalline Polyether." *Macromolecules*, **28**, 5427-5433 (1995).

368. V. Percec, J.-Y. Bae, M. Zhao and D. H. Hill. "Synthesis of Functional Polyphenylenes from Substituted Hydroquinones via Ni(0) Catalyzed Polymerization of Their Bismesylates." *Macromolecules*, **28**, 6726-6733 (1995).

369. J. Leisen, C. Boeffel, H. W. Spiess, D. Y. Yoon, M. H. Sherwood, M. Kawasumi and V. Percec. "Conformational Behavior of the Spacer in a Liquid Crystalline Main Chain Polymer in its Nematic and Glassy State." *Macromolecules*, **28**, 6937-6941 (1995).

370. V. Percec and B. Barboiu. "'Living' Radical Polymerization of Styrene Initiated by Arenesulfonyl Chlorides and $Cu^{I}(bpy)_{n}Cl$." *Macromolecules*, **28**, 7970-7972 (1995).

371. V. Percec, D. Schlueter, Y. K. Kwon, J. Blackwell, M. Moeller and P. Slangen. "Dramatic Stabilization of Hexagonal Columnar Mesophase Generated from Supramolecular and Macromolecular Columns by the Semifluorination of the Alkyl Groups of their Tapered Building Blocks." *Macromolecules*, **28**, 8807-8818 (1995).

372. V. Percec, M. Grigoras, R. S. Clough and J. Fanjul. "Synthesis of High Molecular Weight Poly(ether ketone)s by Polycondensation of Activated Bis(aryl chloride)s with Bisphenolates." *J. Polym. Sci. Part A: Polym. Chem.*, **33**, 331-344 (1995).

373. D. Heberer, A. Keller and V. Percec. "Interrelation between Crystallization and Liquid Crystal Formation. A Calorimetric and Polarizing Microscopical Study on a Monotropic Polymer System." *J. Polym. Sci. Part B: Polym. Phys.*, **33**, 1877-1894 (1995).

374. V. Percec, J.-Y. Bae and D. H. Hill. "Aryl Mesylates in Metal Catalyzed Homo- and Cross-Coupling Reactions. 2. Suzuki-Type Nickel-Catalyzed Cross-Coupling of Aryl Arenesulfonates and Aryl Mesylates with Arylboronic Acids." *J. Org. Chem.*, **60**, 1060-1065 (1995).

375. V. Percec, J.-Y. Bae, M. Zhao and D. H. Hill. "Aryl Mesylates in Metal Catalyzed Homo- and Cross-Coupling Reactions. 3. A Simple and General Synthesis of 2,2'-Diaroyl-4,4'-Dihydroxybiphenyls." *J. Org. Chem.*, **60**, 1066-1069 (1995).

376. V. Percec, J.-Y. Bae and D. H. Hill. "Aryl Mesylates in Metal Catalyzed Homo- and Cross-Coupling Reactions. 4. Scope and Limitations of Aryl Mesylates in Nickel-Catalyzed Cross-Coupling Reactions." *J. Org. Chem.,* **60**, 6895-6903 (1995).

377. V. Percec, Ed. "A Special Issue in Honor of Professor Cristofor I. Simionescu On the Occasion of His 75th Birthday." *J. Macromol. Sci. Pure Appl. Chem*., **A32**, 1381-1383 (1995).

378. V. Percec and H. Oda. "Heterochiral Molecular Recognition in Molecular and Macromolecular Pairs of Liquid Crystals of 4'-(11-vinylundecanyloxy)biphenyl (2R, 3S)- and (2S, 3S)-2-Fluoro-3-methylpentanoate Diastereomers." *J. Macromol. Sci. Pure Appl. Chem*., **A32**, 1531-1561 (1995).

379. H. A. Schneider, B. Rudolf, H.-J. Cantow, V. Percec, P. Chu and A. D. Asandei. "LC Polyethers Based on Conformational Isomerism. Can Pressure Induce Second Order Phase Transitions in Crystalline Phases Preceding the Nematic Phase?" *J. Macromol. Sci. Pure Appl. Chem.*, **A32**, 1577-1587 (1995).

380. V. Percec. "Molecular Design of Novel Liquid Crystalline Polymers with Complex Architecture: Macrocyclics and Dendrimers." *Pure Appl. Chem.*, **67**, 2031-2038 (1995).

381. V. Percec and H. Oda. "Molecular Engineering of Liquid Crystalline Polymers by "Living" Polymerization. 30. Synthesis and "Living" Cationic Polymerization of (2*R*, 3*S*)-2-Fluoro-3-methylpentyl 4'-(8-vinyloxyoctyloxy)biphenyl-4-carboxylate and Its Copolymerization with (2*R*,3*S*)-2-Fluoro-3-methylpentyl 4'-(11-vinyloxyundecanyloxy)biphenyl-4-carboxylate." *J. Mater. Chem.*, **5**, 1115-1123 (1995).

382. V. Percec and H. Oda. "Molecular Engineering of Liquid Crystalline Polymers by "Living" Polymerization. 31. Synthesis and "Living" Cationic Polymerization of (2R,3S)-2-Fluoro-3-methylpentyl 3-Fluoro-4'-(ω-vinyloxy-alkoxy)biphenyl-4-carboxylate with Undecanyl and Octyl Alkyl Groups." *J. Mater. Chem.*, **5**, 1125-1136 (1995).

383. V. Percec and G. Johansson. "From Liquid Crystal Polymers Containing Crown-Ethers to Tapered Building Blocks Containing Crown-Ethers which Self-Assemble into Tubular Supermolecules." *Macromol. Symp.,* **96**, 173-184 (1995).

384. G. Ungar, J. Zhou, V. Percec and P. Chu. "Nematic, Smectic and Columnar Phases of Main-Chain Liquid Crystal Polyethers." *Macromol. Symp.*, **98**, 951-966 (1995).

385. V. Percec and H. Oda. "Molecular Engineering of Liquid Crystalline Polymers by "Living" Polymerization. 32. Synthesis and "Living" Cationic Polymerization of 3-Fluoro-4'-(ω-vinyloxyalkoxy)-4-biphenyl (2R,3S)-2-Fluoro-3-methylpentanoate with Undecanyl and Octyl Alkyl Groups." *J. Polym. Sci., Part A: Polym. Chem.*, **33**, 2359-2374 (1995).

386. S. Z. D. Cheng, Y. Yoon, A. Zhang, E. P. Savitski, J.-Y. Park, V. Percec and P. Chu. "Mesophases Involving Highly Ordered Smectic Phases in a Polyether." *Macromol. Rapid Commun.*, **16**, 533-542 (1995).

387. F. Sahlén, M.-C. Peterson, V. Percec, A. Hult and U. W. Gedde. "Smectic A Organization in Copolymers of i-Butyl Vinyl Ether and 11-[(4'-cyano-4-biphenyl)oxy]undecanyl Vinyl Ether as Assessed by X-ray Scattering." *Polym. Bull.*, **35**, 629-634 (1995).

388. V. Percec, P. Chu, G. Ungar and J. Zhou. "Rational Design of the First Nonspherical Dendrimer Which Displays Calamitic Nematic and Smectic Thermotropic Liquid Crystalline Phases." *J. Am. Chem. Soc.,* **117**, 11441-11454 (1995). [Highlighted in: D. Bradley, *Science*, **270**, 1924 (1995)]

389. V. Percec and D. H. Hill. "Step Growth Electrophilic Oligomerization and Polymerization Reactions" in *Cationic Polymerization: Mechanisms, Synthesis and Applications*, K. Matyjaszewski, Ed., M. Dekker: New York, 555-682 (1996).

390. Ungar, D. Abramic, V. Percec and J. A. Heck. "Self-Assembly of Twin Tapered Bisamides into Supramolecular Columns Exhibiting Columnar Hexagonal Mesophases." *Liq. Cryst.*, **21**, 73-86 (1996).

391. Y. Yoon, A. Zhang, R.-M. Ho, S. Z. D. Cheng, V. Percec and P. Chu. "Phase Identification in a Series of Liquid Crystalline TPP Polyethers and Copolyethers Having Highly Ordered Mesophase Structures. 1. Phase Diagrams of Odd-Numbered TPP Polyethers." *Macromolecules*, **29**, 294-305 (1996).

392. G. Johansson, V. Percec, G. Ungar and J. P. Zhou. "Fluorophobic Effect in the Self-Assembly of Polymers and Model Compounds Containing Tapered Groups into Supramolecular Columns." *Macromolecules*, **29**, 646-660 (1996).

393. V. Percec, D. Schlueter, J. C. Ronda, G. Johansson, G. Ungar and J. P. Zhou. "Tubular Architectures from Polymers with Tapered Side Groups. Assembly of Side Groups via a Rigid Helical Chain Conformation and Flexible Helical Chain Conformation Induced via Assembly of Side Groups." *Macromolecules*, **29**, 1464-1472 (1996).

394. Y. Yoon, R.-M. Ho, B. Moon, D. Kim, K. W. McCreight, F. Li, F. W. Harris S. Z.D.Cheng, V. Percec and P. Chu. "Mesophase Identification in a Series of Liquid Crystalline TPP Polyethers and Copolyethers Having Highly Ordered Mesophase Structures. 2. A Phase Diagram of Even-Numbered Polyethers." *Macromolecules*, **29**, 3421-3431 (1996).

395. V. Percec, B. Barboiu, A. Neumann, J. C. Ronda and M. Zhao. "Metal Catalyzed "Living" Radical Polymerization of Styrene Initiated with Arenesulfonyl Chlorides. From Heterogeneous to Homogeneous Catalysis." *Macromolecules*, **29**, 3665-3668 (1996).

396. V. Percec, M. Zhao, J.-Y. Bae and D. H. Hill. "Regioregular and Regioirregular Poly(p-phenylene)s via Ni(0) Catalyzed Homocoupling of Arylenebismesylates." *Macromolecules*, **29**, 3727-3735 (1996).

397. V. Percec, A. D. Asandei and P. Chu. "Design of Side Chain and Main Chain Liquid Crystalline Polymers Containing Supramolecular Quasi-Rigid-Rod-Like Mesogens Obtained from Collapsed Main Chain Macrocyclics." *Macromolecules*, **29**, 3736-3750 (1996).

398. R.-M. Ho, Y. Yoon, M. Leland, S. Z. D. Cheng, D. Yang, V. Percec and P. Chu. "Phase Identification in a Series of Liquid Crystalline TPP Polyethers and Copolyethers Having Highly Ordered Mesophase Structure. 3. Thin Film Surface Induced Ordering Structure and Morphology." *Macromolecules*, **29**, 4528-4535 (1996).

399. M.C. Grob, A. E. Feiring, B. C. Auman, V. Percec, M. Zhao and D. H. Hill. "Solubilization of Regioregular and Regioirregular Poly(p-Phenylene)s via -CF_3 and -OCF_3 Substituents to Generate A Model for Rigid-Rod Polymers." *Macromolecules*, **29**, 7284-7293 (1996).

400. F. Li, K. A. Crandall, P. Chu, V. Percec, R. G. Petschek and C. Rosenblatt. "Dendrimeric Liquid Crystals: Isotropic-Nematic Pretransitional Behavior." *Macromolecules*, **29**, 7813-7819 (1996).

401. V. Percec, G. Johansson, D. Schlueter, J. C. Ronda and G. Ungar. "Molecular Recognition Directed Self-Assembly of Tubular Supramolecular Architectures from Building Blocks Containing Monodendrons as *Exo*-Receptors and Crown- or Pseudo-Crown-Ethers as *Endo*-Receptors." *Macromol. Symp.*, **101**, 43-60 (1996).

402. H. Gankema, M. A. Hempenius, M. Moeller, G. Johansson and V. Percec. "Gel-Template Leaching: An Approach to Functional Nanoporous Membranes." *Macromol. Symp.*, **102**, 381-390 (1996).

403. S. N. Chvalun, Y. K. Kwon, J. Blackwell and V. Percec. "Comparative Study of Supermolecular Self-Organization of Polymethacrylate Containing Bulky Side Substituents and Its Precursor." *Polym. Sci. Ser. A*, **38**, 1298-2005 (1996); *Vysokomol. Soedin. Ser. A*, **38**, 1978-1985 (1996).

404. V. Percec, A. D. Asandei and M. Zhao. "TPB': A Constitutional Isomeric Mesogen Based on Conformational Isomerism Which Generates Pairs of Completely Isomorphic Polyethers." *Polymer*, **37**, 3889-3897 (1996).

405. V. Percec and D. H. Hill. "Step Polymerization Reactions via Nickel and Palladium Catalyzed Carbon-Carbon Bond Formation" in *Step Growth Polymers for High-Performance Materials, New Synthetic Methods,* J. W. Labadie and J. L. Hedrick Eds., *ACS Symposium Series 624*, American Chemical Society: Washington DC, 2-56 (1996).

406. Y. Yoon, R.-M. Ho, E. P. Savitski, F. Li, S. Z. D. Cheng, V. Percec and P. Chu. "Identification of Highly Ordered Smectic Phases in a Series of Main-Chain Liquid Crystalline Polyethers" in *Liquid Crystalline Polymer Systems. Technological Advances*. A. I. Asayev, T. Kyu and S. Z. D. Cheng, Eds., *ACS Symposium Series 632*, American Chemical Society: Washington DC, 358-371 (1996).

407. V. Percec. "Self-Assembly of Viruses as Model for the Design of New Macromolecular and Supramolecular Architectures." *J. Macromol. Sci. Pure Appl. Chem.*, **A33**, 1479-1496 (1996).

408. V. Percec, A. D. Asandei, M. Zhao. "Stepwise Synthesis of 'Main-Chain' Liquid-Crystalline Macrocyclics Based on Conformationally Flexible Mesogens." *Chem. Mater.* **8**, 301-308 (1996).

409. V. Percec, A. D. Asandei and G. Ungar. "From Regioirregular Linear Main Chain Liquid Crystal Polyethers Exhibiting Two Uniaxial Nematic Phases to Macrocyclic Main Chain Oligoethers Displaying Nematic and Smectic Phases." *Chem. Mater.*, **8**, 1550-1557 (1996).

410. V. Percec, G. Johansson, G. Ungar and J. Zhou. "Fluorophobic Effect Induces the Self-Assembly of Semifluorinated Tapered Monodendrons Containing Crown Ethers into Supramolecular Columnar Dendrimers which Exhibit a Homeotropic Hexagonal Columnar Liquid Crystalline Phase." *J. Am. Chem. Soc.*, **118**, 9855-9866 (1996).

411. Y. Yoon, R.-M. Ho, F. Li, B. Moon, D. Kim, J.-Y. Park, F. W. Harris, S. Z. D. Cheng, V. Percec and P. Chu. "Thermotropic Transition Properties of Highly Ordered Smectic Phases. Series of Main Chain Liquid Crystalline Polyethers." *J. Thermal. Anal.,* **47**, 957-973 (1996).

412. V. Percec. "Comments on 'Interfacial Polycondensation. I.' by Emerson L. Wittbecker and Paul W. Morgan, *J. Polym. Sci.*, XL, 289 (1959) and 'Interfacial Polycondensation. II. Fundamentals of Polymer Formation at Liquid Interfaces,' by Paul W. Morgan and Stephanie L. Kwolek, *J. Polym. Sci.,* XL, 299 (1959)." *J. Polym. Sci. Part A: Polym. Chem.*, **34**, 519-520 (1996).

413. G. Johansson, V. Percec, G. Ungar and K. Smith. "Fluorophobic Effect Generates a Systematic Approach to the Synthesis of the Simplest Class of Rod-Like Liquid Crystals Containing a Single Benzene Unit." *Chem. Mater.*, **9**, 164-175 (1997).

414. V. Percec, G. Zipp, G. Johansson, U. Beginn and M. Moeller. "Synthesis and Characterization of Mono-Methacrylate Functionalized Self-Organized Crown-Ether Compound." *Macromol. Chem. Phys.*, **198**, 265-277 (1997).

415. V. Percec and G. Johansson. "Molecular, Macromolecular and Supramolecular Liquid Crystals Containing Macroheterocyclic Ligands" in *Macromolecular Design of Polymeric Materials*, K. Hatada, T. Katayama and O. Vogl, Eds., Marcel Dekker, New York, 633-668 (1997).

416. V. Percec. "From Molecular to Macromolecular Liquid Crystals" in *Handbook of Liquid Crystal Research*, Peter J. Collings and J. S. Patel, Eds., Oxford University: Oxford, 259-346 (1997)**.**

417. Y. Yoon, R.-M. Ho, F. Li, M. E. Leland, J.-Y. Park , S. Z. D. Cheng, V. Percec and P. Chu. "Existence of Highly Ordered Smectic Structures in a Series of Main-Chain Liquid Crystalline Polyethers," *Progr. Polym. Sci.,* **22**, 765-794 (1997).

418. V. Percec. "Liquid Crystals 100 Years Later. What Are the New Concepts Used in the Design of Molecular, Macromolecular and Supramolecular Liquid Crystals?" *Macromol. Symp.,* **117**, 267-273 (1997).

419. V. Percec, C.-H. Ahn, W.-D. Cho, G. Johansson and D. Schlueter. "Design of New Macromolecular Architectures by Using Quasi-Equivalent Monodendrons as Building Blocks." *Macromol. Symp.,* **118**, 33-43 (1997)**.**

420. S. N. Chvalun, J. Blackwell, Y. K. Kwon and V. Percec. "Small Angle X-ray Analysis of the Columnar Structures Formed by a Polymethacrylate with Highly Tapered Side Groups and by One of Its Low Molar Mass Precursors." *Macromol. Symp.*, **118**, 663-675 (1997).

421. V. S. K. Balagurusamy, G. Ungar, V. Percec and G. Johansson. "Rational Design of the First Spherical Supramolecular Dendrimers Self-Organized in a Novel Thermotropic Cubic Liquid Crystalline Phase and the Determination of their Shape by X-Ray Analysis." *J. Am. Chem. Soc.*, **119**, 1539-1555 (1997).

422. V. Percec, D. Schlueter and G. Ungar. "Rational Design of a Hexagonal Columnar Mesophase in Telechelic Alternating Multicomponent Semifluorinated Polyethylene Oligomers." *Macromolecules,* **30**, 645-648 (1997).

423. V. Percec, P. J. Turkaly and A. D. Asandei. "Macrocyclization Overrides with a Novel Odd-Even Alternation the Polymer Effect in the Stabilization of Liquid Crystalline (LC) Phases. A Demonstration with LC Crown Ethers." *Macromolecules*, **30**, 943-952 (1997).

424. Y.- C. Chiang, A. M. Jamieson, M. Kawasumi and V. Percec. "Electrorheological Behavior of Main-Chain Liquid Crystal Polymers Dissolved in Nematic Solvents." *Macromolecules*, **30**, 1992-1996 (1997).

425. G. H. F. Bergmann, H. Finkelmann, V. Percec and M. Zhao. "Liquid Crystalline Main-Chain Elastomers." *Macromol. Rapid Commun.*, **18**, 353-360 (1997)**.**

426. U. Beginn, G. Zipp, M. Moeller, G. Johanson and V. Percec. "Self-Organization of a Liquid Crystalline Methacrylate-Monofunctionalized Crown-Ether Compound in Low-Shrinkage Acrylate Mixture." *Macromol. Chem. Phys.,* **198**, 2839-2852 (1997).

427. V. Percec, M. Zhao, J.-Y. Bae, A. D. Asandei and D. H. Hill. "Synthesis of Polyarylene Homopolymers and Copolymers via Nickel (0)-Catalyzed Homocoupling of Arylene Bismesylates Derived from Bisphenols." *Polym. Bull.*, **38**, 515-522 (1997).

428. R.-M. Ho, Y. Yoon, M. Leland, S. Z. D. Cheng, V. Percec and P. Chu. "Phase Identification in a Series of Liquid-Crystalline TPP Polyethers and Copolyethers Having Highly Ordered Mesophase Structures. 4. Phase Structures and Order Evolution in TPP (n = 12) Thin Films." *Macromolecules*, **30**, 3349-3353 (1997).

429. Cheng, Y. Yoon, R.-M. Ho, M. Leland, M. Guo, S. Z. D. Cheng, P. Chu and V. Percec. "Phase Identification in a Series of Liquid Crystalline TPP Polyethers and Copolyethers Having Highly Ordered Mesophase Structure. 5. Solid State ^{13}C NMR Characterization of Motion and Conformations of Methylene and Mesogen Groups in Different Mesophases of TPP (n = 12 and 15)." *Macromolecules*, **30**, 4688-4694 (1997).

430. V. Percec and D. Schlueter. "Mechanistic Investigations on the Formation of Supramolecular Cylindrical Shaped Oligomers and Polymers by Living Ring Opening Metathesis Polymerization of a 7-Oxanorbornene Monomer Substituted with Two Tapered Monodendrons." *Macromolecules*, **30**, 5783-5790 (1997).

431. V. Percec, H.-J. Kim and B. Barboiu. "Disulfonyl Chlorides: A Universal Class of Initiators for Metal Catalyzed 'Living' Diradical Polymerization of Styrene(s), Methacrylates and Acrylates." *Macromolecules*, **30**, 6702-6705 (1997).

432. V. Percec and A. D. Asandei. "Monodisperse Linear Liquid Crystalline Polyethers via a Repetitive 2^n Geometric Growth Algorithm." *Macromolecules*, **30**, 7701-7720 (1997).

433. S. D. Hudson, H.-T. Jung, V. Percec, W.-D. Cho, G. Johansson, G. Ungar and V. S. K. Balagurusamy. "Direct Visualization of Individual Cylindrical and Spherical Supramolecular Dendrimers." *Science*, **278**, 449-452 (1997)**.**

434. V. Percec, C.-H. Ahn and B. Barboiu. "Self-Encapsulation, Acceleration and Control in the Radical Polymerization of Monodendritic Monomers via Self-Assembly." *J. Am. Chem. Soc.*, **119**, 12978-12979 (1997)**.**

435. V. Percec, H.-J. Kim and B. Barboiu. "Scope and Limitations of Functional Sulfonyl Chlorides as Initiators for Metal Catalyzed 'Living' Radical Polymerization of Styrene and Methacrylates." *Macromolecules*, **30**, 8526-8528 (1997).

436. V. Percec, C.-H. Ahn, G. Ungar, D. J. P. Yeardley, M. Moeller and S. S. Sheiko. "Controlling Polymer Shape through the Self-Assembly of Dendritic Side-Groups." *Nature*, **391**, 161-164 (1998). [Highlighted in: H. Frey "From Random Coil to Extended Nanocylinder: Dendrimer Fragments Shape Polymer Chains." *Angew. Chem. Int. Ed.* **37**, 2193-2197(1998); Featured in: S. Hecht "Construction with Macromolecules", *Materials Today* **8(3)** March p. 48-55(2005)]

437. V. Percec, B. Barboiu and H.-J. Kim. "Arenesulfonyl Halides: A Universal Class of Functional Initiators for Metal Catalyzed 'Living' Radical Polymerization or Styrene(s), Methacrylates and Acrylates." *J. Am. Chem. Soc.*, **120**, 305-316 (1998).

438. V. Percec, D. Schlueter, G. Ungar, S. Z. D. Cheng and A. Zhang. "Hierarchical Control of Internal Superstructure, Diameter and Stability of Supramolecular and Macromolecular Columns Self-Organized from Tapered Monodendritic Building Blocks." *Macromolecules*, **31**, 1745-1762 (1998).

439. J. Jin, M. R. Fisch, M. P. Mahajan, K. A. Crandall, P. Chu, C.-Y. Huang, V. Percec, R. G. Petschek and C. Rosenblatt. "Highly Anisotropic Elasticity of a Dendritic Liquid Crystal." *Eur. Phys. J. B.*, **5**, 251-255 (1998).

440. V. Percec, B. Barboiu and M. van der Sluis. "Self-Regulated Phase Transfer of Cu_2O/bpy, Cu(0)/bpy and Cu_2O/Cu(0)bpy Catalyzed 'Living' Radical Polymerization Initiated with Sulfonyl Chlorides." *Macromolecules*, **31**, 4053-4056 (1998).

441. S. A. Prokhorova, S. S. Sheiko, M. Moeller, C.-H. Ahn and V. Percec. "Molecular Imaging of Monodendron Jacketed Polymers by Scanning Force Microscopy," *Macromol. Rapid Commun.*, **19**, 359-366 (1998). [Front cover for the entire year 1999; Highlighted in: H. Frey "From Random Coil to Extended Nanocylinder: Dendrimer Fragments Shape Polymer Chains." *Angew. Chem. Int. Ed.* **37**, 2193-2197 (1998). [Highlighted in: H.L. Anderson "Building Photogenic Molecules-Molecules Made for Direct Individual Observation." *Angew. Chem. Int. Ed.* **39**, 2451-2453(2000)]

442. S. N. Chvalun, J. Blackwell, J. D. Cho, Y. K. Kwon, V. Percec and J. A. Heck. "X-Ray Analysis of the Internal Rearrangement of the Self-Assembling Columnar Structure Formed by a Highly Tapered Molecule." *Polymer*, **39**, 4515-4522 (1998).

443. V. Percec, C.-H. Ahn, W.-D. Cho, A. M. Jamieson, J. Kim, T. Leman, M. Schmidt, M. Gerle, M. Möller, S. A. Prokhorova, S. S. Sheiko, S. Z. D. Cheng, A. Zhang, G. Ungar and D. J. P. Yeardley. "Visualizable Cylindrical Macromolecules with Controlled Stiffness from Backbones Containing Libraries of Self-Assembling Dendritic Side Groups." *J. Am. Chem. Soc.*, **120**, 8619-8631 (1998).

444. V. Percec, W.-D. Cho, P. E. Mosier, G. Ungar and D. J. P. Yeardley. "Structural Analysis of Cylindrical and Spherical Supramolecular Dendrimers Quantifies the Concept of Monodendritic Shape Control by Generation Number." *J. Am. Chem. Soc.*, **120**, 11061-11070 (1998).

445. J. Y. Bae and V. Percec. "The Application of Nickel(0) Catalyzed Homocoupling Reaction to the Synthesis of Novel 2,2-Diphenyl-4,4'-Dihydroxybiphenyl." *J. Ind. Eng. Chem. (Seoul),* **4**, 64-67 (1998).

446. M. van der Sluis, B. Barboiu, N. Pesa and V. Percec. "Rate Enhancement by Carboxylate Salts in the CuCl, Cu_2O, and Cu(0) Catalyzed "Living" Radical Polymerization of Butyl Methacrylate Initiated with Sulfonyl Chlorides." *Macromolecules*, **31**, 9409-9412 (1998).

447. V. Percec, A. D. Asandei, D. H. Hill and D. Crawford. "Poly(p-phenylene)s with Mesogenic Side-Groups. A Potential Class of N$_{II}$ Side Chain Liquid Crystalline Polymers?" *Macromolecules*, **32**, 2597-2604 (1999).

448. S. N. Chvalun, J. Blackwell, J. D. Cho, I. V. Bykova and V. Percec. "A Second Columnar Liquid Crystalline Phase Formed by Polymers with Highly Tapered Side Chains." *Acta Polym.*, **50**, 51-56 (1999).

449. V. Percec, C.-H. Ahn, T. K. Bera, G. Ungar and D. J. P. Yeardley. "Co-Assembly of a Hexagonal Columnar Liquid Crystalline Superlattice from Polymer(s) Coated with a 3-Cylindrical Bundle Supramolecular Dendrimer," *Chem. Eur. J.,* **5***,* 1070-1083 (1999).

450. S. A. Prokhorova, S. S. Sheiko, C.-H. Ahn, V. Percec and M. Moeller. "Molecular Conformations of Monodendron-Jacketed Polymers by Scanning Force Microscopy." *Macromolecules*, **32**, 2653-2660 (1999).

451. S. D. Hudson, H.-T. Jung, P. Kewsuwan, V. Percec and W.-D. Cho. "Grain Boundaries and Stacking Faults in a *Pm3n* Cubic Mesophase." *Liq. Cryst.*, **26,** 1493-1499 (1999).

452. R.-Q. Zheng, E.-Q. Chen, S. Z. D. Cheng, F. Xie, D. Yan, T. He, V. Percec, P. Chu and G. Ungar. "Phase Identification in a Series of Liquid Crystalline TPP Polyethers and Copolyethers Having Highly Ordered Mesophase Structures. 6. Structure Changes from Smectic to Columnar Phases in a Series of Copolyethers Containing Odd- and Even-Number Comonomers in Equal Molar Composition." *Macromolecules*, **32**, 3574-3582 (1999).

453. V. Percec, H. Oda and A.D. Asandei. "Heterochiral Recognition in Molecular and Macromolecular Pairs of Liquid Crystals Based on R and (S)-2-Chloro-4-methylpentyl 4'-[[8-(Vinyloxy)octyl)oxy]biphenyl-4-carboxylate] Enantiomers." *Chem. Mater.*, **11**, 1890-1906 (1999).

454. A.J. Lovinger, H. Morawetz, V. Percec and D.A. Tirrell. "A Tribute to Norbet M. Bikales." *J. Polym. Sci. Part A: Polym. Chem,* **37**, 1049-1051 (1999).

455. H.-T. Jung, S.D. Hudson and V. Percec. "Microstructure and Morphology of Thermotropic Amphiphilic Liquid Crystalline Materials." *Mater. Res. Soc. Symp. Proc*. **559**, 189-194 (1999).

456. R.-Q. Zheng, E.-Q. Chen, S.Z.D. Cheng, F. Xie, D. Yan, T. He, V. Percec, P. Chu and G. Ungar. "Phase Identification in a Series of Liquid Crystalline TPP Polyethers and Copolyethers Having Highly Ordered Mesophase Structures. 7. Phase Structures in a Series of Copolyethers Containing Odd and Even Numbers of Methylene Units of Different Compositions." *Macromolecules*, **32**, 6981-6988 (1999).

457. G. Ungar, V. Percec, M.N. Holerca, G. Johansson and J.A. Heck. "Heat-Shrinking Spherical and Columnar Supramolecular Dendrimers. Their Interconversion and Shape and Size Dependence on Molecular Taper Angle", *Chem. Eur. J.*, **6**, 1258-1266 (2000). **[**Front Cover]

458. V. Percec and D. A. Tirrell. "Living or Controlled?" *J. Polym. Sci. Part A: Polym. Chem.*, **38**, 1705 (2000).

459. A. E. Feiring, E. R. Wonchoba, F. Davidson, V. Percec and B. Barboiu. "Fluorocarbon - Ended Polymers. Metal Catalyzed Radical and Living Radical Polymerization Initiated with Perfluoroalkylsulfonyl Halides." *J. Polym. Sci. Part A: Polym. Chem.,* **38**, 3313-3335 (2000).

460. V. Percec, Q. Zheng and D. A. Asandei. "Chiral Recognition in Molecular and Macromolecular Pairs of (S)- and (R)-1-Cyano-2-Methylpropyl 4'-{[4-(8-Vinyloxyoctyloxy)benzoyl]oxy}biphenyl-4-Carboxylate Enantiomers." *J. Polym. Sci. Part A: Polym. Chem.,* **38**, 3631-3655 (2000).

461. V. Percec, A. D. Asandei, F. Asgarzadeh, T. K. Bera and B. Barboiu. "Cu(I) and Cu(II) Salts of Group VIA Elements as Catalysts for Living Radical Polymerization Initiated with Sulfonyl Chlorides." *J. Polym. Sci. Part A: Polym. Chem.,* **38**, 3839-3843 (2000).

462. N. M. Bikales, S. Penczek and V. Percec. "Michael Szwarc (1909-2000): Polymer Science Has Lost a Giant." *J. Polym. Sci. Part A: Polym. Chem.*, **38**, 4177-4178 (2000).

463. V. Percec, A. D. Asandei, F. Asgarzadeh, B. Barboiu, M. N. Holerca and C. Grigoras. "Organocopper Catalyzed Living Radical Polymerization Initiated with Aromatic Sulfonyl Chlorides." *J. Polym. Sci. Part A: Polym. Chem.,* **38**, 4353-4361 (2000).

464. V. Percec, B. Barboiu, T. K. Bera, M. van der Sluis, R. B. Grubbs and J. M. J. Frechet. "Designing Functional Aromatic Multisulfonyl Chloride Initiators for Complex Organic Synthesis by Living Radical Polymerization." *J. Polym. Sci. Part A: Polym. Chem.,* **38**, 4776-4791 (2000).

465. D. J. P. Yeardley, G. Ungar, V. Percec, M. N. Holerca and G. Johansson. "Spherical Supramoleular Minidendrimers Self-Organized in an "Inverse-Micellar"-Like Thermotropic Body Centered Cubic Liquid Crystalline Phase." *J. Am. Chem. Soc*., **122,** 1684-1689 (2000).

466. V. Percec, W.-D. Cho, G. Ungar and D. J. P. Yeardley. "From Molecular Flat Tapers, Discs and Cones to Supramolecular Cylinders and Spheres via Frechet-Type Monodendrons Modified on their Periphery." *Angew. Chem. Int. Ed.*, **39,** 1597-1602 (2000).

467. V. Percec, W.-D. Cho, G. Ungar und D. J. P. Yeardley. "Von Molekularen Kreissengmenten, Scheiben und Kegeln zu Supramolekularen Zylindern und Kugeln mit an der Peripherie Modifizierten Frechet-Monodendren." *Angew. Chem*., **112**, 1661-1666 (2000).

468. V. Percec, W.-D. Cho, M. Moeller, S. A. Prokhorova, G. Ungar and D.J.P. Yeardley. "Design and Structural Analysis of the First Spherical Monodendron Self-Organizable in a Cubic Lattice." *J. Am. Chem. Soc*., **122**, 4249-4250 (2000).

469. R.-Q. Zheng, E.-Q. Chen, S. Z. D. Cheng, F. Xie, D. Yan, T. He, V. Percec, P. Chu and G. Ungar. "Phase Identification in a Series of Liquid Crystalline TPP Polyethers and Copolyethers Having Highly Ordered Mesophase Structures.8. Phase and Structural Evolutions in a Series of Copolyethers Having Odd-Numbered Methylene Units in Both Comonomer Components." *Macromolecules*, **33**, 5159-5168 (2000).

470. M. N. Holerca and V. Percec. "^{1}H-NMR Investigation of the Mechanism of 2-Substituted-2-Oxazoline Ring Formation and of the Hydrolysis of the Corresponding Oxazolinium Salts." *Eur. J. Org. Chem*., 2257-2263 (2000).

471. S. A. Prokhorova, S. S. Sheiko, A. Mourran, A. Azumi, U. Beginn, G. Zipp, C.-H. Ahn, N. M. Holerca, V. Percec and M. Möller. "Epitaxial Adsorption of Monodendron Jacketed Linear Polymers on Highly Oriented Pyrolytic Graphite." *Langmuir*, **16**, 6862-6867 (2000).

472. V. Percec and N. M. Holerca. "Detecting the Shape Change of Complex Macromolecules During their Synthesis with the Aid of Kinetics. A New Lesson from Biology." *Biomacromolecules*, **1**, 6-16 (2000).

473. G. Ungar, K. A. Noble, V. Percec and G. Johansson. "X-ray Diffraction Study of Polyphilic Smectic Liquid Crystals." *J. Mater. Sci.,* **35**, 5241-5246 (2000).

474. Y. C. Chiang, A. M. Jamieson, S. Campbell, T. H. Tong, N. D. Sidocky, L. C. Chien, M. Kawasumi, V. Percec. "Electro-Rheological Behavior of Liquid Crystal Polymers (LCPs) Dissolved in a Nematic Solvent: Dependence on Temperature and LCP Structure." *Polymer,* **41**, 4127-4135 (2000).

475. V. Percec, W.-D. Cho and G. Ungar. "Increasing the Diameter of Cylindrical and Spherical Supramolecular Dendrimers by Decreasing the Solid Angle of their Monodendrons via Periphery Functionalization." *J. Am. Chem. Soc.,* **122**, 10273-10281 (2000).

476. V. Percec, T. K. Bera, B. B. De, Y. Sanai, J. Smith, M. N. Holerca, B. Barboiu, R. B. Grubbs and J. M. J. Frechet. "Synthesis of Functional Aromatic Multisulfonyl Chlorides and Their Masked Precursors." *J. Org. Chem.,* **66,** 2104-2117 (2001).

477. W.-J. Pao, M. R. Stetzer. P. A. Heiney, W.-D. Cho and V. Percec. "X-ray Reflectivity Study of Langmuir Films of Amphiphilic Monodendrons." *J. Phys. Chem. B,* **105**, 2170-2176 (2001).

478. V. Percec, W.-D. Cho, G. Ungar and D. J. P. Yeardley. "Synthesis and Structural Analysis of Two Constitutional Isomeric Libraries of AB_2 Based Monodendrons and Supramolecular Dendrimers." *J. Am. Chem. Soc*., **123,** 1302-1315 (2001).

479. W. Buchowicz, N. M. Holerca and V. Percec. "Self-Inhibition of Propagating Carbenes in ROMP of 7-Oxa-bicyclo[2.2.1]hept-2-ene-5,6-dicarboxylic Acid Dendritic Diesters Initiated with $Ru(=CHPh)Cl_2(PCy_3)$(1,3-dimesityl-4,5-dihydroimidazol-2-ylidene)." *Macromolecules*, **34**, 3842-3848 (2001).

480. V. Percec and F. Aszgarzadeh. "Metal Catalyzed Living Radical Graft Copolymerization of Olefins Initiated from the Structural Defects of Poly(vinyl chloride)." *J. Polym. Sci. Part A: Polym. Chem.*, **39,** 1120-1135 (2001).

481. F. Xie, Z. Hu, J. Liu, D. Yan, T. He, B. Wang, R. Zheng, S. Z. D. Cheng and V. Percec. "Molecular and Supramolecular Deformations and Disclinations in a Liquid Crystalline Copolyether Thin Film under an Electrostatic Field." *Macromol. Rapid Commun.* **22**, 396-400 (2001).

482. H. Duan, S. D. Hudson, G. Ungar, M. N. Holerca and V. Percec. "Definitive Support by Transmission Electron Microscopy, Electron Diffraction and Electron Density Calculations for the Formation of a BCC Lattice from Poly{N-[3,4,5-tris(n-dodecan-1-yloxy)benzoyl]ethyleneimine}." *Chem. Eur. J.*, **7,** 4134-4141 (2001).

483. V. Percec. "Introduction: Frontiers in Polymer Chemistry." *Chem. Rev.* **101**, 3579-3580 (2001).

484. S. N. Chvalun, M. A. Shcherbina, I. V. Bykova, J. Blackwell, V. Percec, Y. K. Kwon and J. D. Cho. "The Temperature Behavior of Self-Assembling Systems Based on Poly(methacrylate)s with Bulky Side Groups and their Macromonomers." *Polym. Sci. Ser. A* **43**, 33-43 (2001); *Vysokomol. Soedin. Ser. A* **43**, 40-52 (2001).

485. F. Xie, Z. Hu, J. Liu, X. Yang, D. Yan, T. He, R. Zheng, S. Z. D. Cheng and V. Percec. "Electrostatic Field Induced Chain Alignment of Liquid Crystalline Copolyether TPP thin Films." *Polymer*, **42**, 4039-4044 (2001).

486. V. Percec, M. N. Holerca, S. Uchida, S. N. Magonov, D. J. P. Yeardley, G. Ungar, H. Duan and S. D. Hudson, "Poly(oxazolines) with Tapered Minidendritic Side Groups. The Simplest Cylindrical Models to Investigate the Formation of 2-D and 3-D Order by Direct Visualization." *Biomacromolecules*, **2**, 706-728 (2001).

487. V. Percec, M. N. Holerca, S. Uchida, D. J. P. Yeardley and G. Ungar. "Poly(oxazoline)s with Tapered Minidendritic Side Groups as Models for the Design of Synthetic Macromolecules with Tertiary Structure. A Demonstration of the Limitations of Living Polymerization in the Design of 3-D Structures Based on Single Polymer Chains." *Biomacromolecules*, **2,** 729-740 (2001).

488. M. J. E. O'Rourke, D. K. Ding, E. L. Thomas and V. Percec. "Morphologies and Energies of Neel Inversion Wall Defects in a Liquid Crystal Polyether." *Macromolecules*, **34,** 6658-6669 (2001).

489. A. D. Asandei and V. Percec. "From Metal-Catalyzed Radical Telomerization to Metal-Catalyzed Radical Polymerization of Vinyl Chloride: Toward Living Radical Polymerization of Vinyl Chloride." *J. Polym. Sci. Part A: Polym. Chem.,* **39,** 3392-3418 (2001).

490. B. Barboiu and V. Percec. "Metal Catalyzed Living Radical Polymerization of Acrylonitrile Initiated from Sulfonyl Chlorides." *Macromolecules*, **34,** 8626-8636 (2001).

491. V. Percec. "Introduction: Frontiers in Polymer Chemistry." *Chem. Rev.* **101**, 3579-3580 (2001).

492. V. Percec, M. N. Holerca, S. Uchida, W.-D. Cho, G. Ungar, Y. Lee and D. J. P. Yeardley. "Exploring and Expanding the 3-D Structural Diversity of Supramolecular Dendrimers with the Aid of Libraries of Alkali Metals of their AB_3 Minidendritic Carboxylates." *Chem. Eur. J.* **8**, 1106-1117 (2002).

493. V. Percec and T. K. Bera. "Cell Membrane as a Model for the Design of Ion-Active Nanostructured Supramolecular Systems." *Biomacromolecules*, **3,** 167-181 (2002).

494. H. T. Jung, S. O. Kim, S. D. Hudson and V. Percec. "Elastic Properties of Hexagonal Columnar Mesophase Induced by Amphiphilic Supramolecular Assembly." *Appl. Phys. Lett.*, **80**, 395-397 (2002).

495. V. Percec, W.-D. Cho, G. Ungar and D. J. P. Yeardley."Synthesis and NaOTf Mediated Self-Assembly of Monodendritic Crown-Ethers." *Chem. Eur. J.*, **8**, 2011-2025 (2002).

496. V. Percec and T. K. Bera. "Cell Membrane as a Model for the Design of Semifluorinated Ion-Selective Nanostructured Supramolecular Systems." *Tetrahedron*, **58**, 4031-4040 (2002).

497. V. Percec, A. Cappotto and B. Barboiu. "Metal Catalyzed Living Radical Graft Copolymerization of n-Butyl Methacrylate and Styrene Initiated From the Structural Defects of Narrow Molecular Weight Distribution Poly(Vinyl Chloride)." *Macromol. Chem. Phys*., **203**, 1674-1683 (2002).

498. V. Percec, T. K. Bera and R. J. Butera. "A New Strategy for the Preparation of Supramolecular Neutral Hydrogels." *Biomacromolecules*, **3**, 272-279 (2002).

499. H.-T. Jung, S. W. Kim, Y. K. Ko, B. K. Yoon, S. D. Hudson, V. Percec, M. N. Holerca, W.-D. Cho and P. E. Mosier. "Surface Order in Thin Films of Self-Assembled Columnar Liquid Crystals." *Macromolecules*, **35**, 3717-3721 (2002).

500. V. Percec, A. V. Popov, E. Ramirez-Castillo, M. Monteiro, B. Barboiu, O. Weichold, A. D. Asandei and C. M. Mitchell. "Aqueous Room Temperature Metal-Catalyzed Living Radical Polymerization of Vinyl Chloride." *J. Am. Chem. Soc.*, **124**, 4940-4941 (2002).

501. J. A. A. W. Elemans, M. J. Boerakker, S. J. Holder, A. E. Rowan, W.-D. Cho, V. Percec and R. J. M. Nolte. "Plastic and Liquid Crystalline Architectures from Dendritic Receptor Molecules." *Proc. Natl. Acad. Sci. USA*, **99**, 5093-5098 (2002).

502. Z. Liu, W. S. Zhou, S. Z. D. Cheng, V. Percec and G. Ungar. "Phase Behaviours and Molecular and Supramolecular Structural Identifications of Liquid Crystalline Second Generation Monodendron." *Chem. Mater.*, **14**, 2384-2392 (2002).

503. V. Percec, J. G. Rudick, P. Nombel and W. Buchowicz. "Dramatic Decrease of the *Cis*-Content and Molecular Weight of *Cis*-Transoidal Polyphenylacetylene at 23 ºC in Solutions Prepared in Air." *J. Polym. Sci. Part A: Polym. Chem.,* **40**, 3212-3220 (2002).

504. V. Percec, M. Obata, J. G. Rudick, B. B. De, M. Glodde, T. K. Bera, S. N. Magonov, V. S. K. Balagurusamy and P. A. Heiney. "Synthesis, Structural Analysis, and Visualization of Poly(2-Ethynyl-9-substituted carbazole)s and Poly(2-Ethynyl-9-substituted carbazole)s Containing Chiral and Achiral Minidendritic Substituents." *J. Polym. Sci. Part A: Polym. Chem*., **40**, 3509-3533 (2002).

505. V. Percec, M. Glodde, T. K. Bera, Y. Miura, I. Shiyanovskaya, K. D. Singer, V. S. K. Balagurusamy, P. A. Heiney, I. Schnell, A. Rapp, H.-W. Spiess, S. D. Hudson, and H. Duan. "Self-Organization of Supramolecular Helical dendrimers into Complex Electronic Matter." *Nature,* **419,** 384-387 (2002). [Featured in: "News and Views," E.W. Meijer and A. P. H. J. Schenning "Material Marriage in Electronics" *Nature*, **419**, 353-354 (2002); Featured in: S. Hecht "Construction with Macromolecules," *Materials Today*, **8** March 48-55 (2005); Highlighted on the NSF web site]

506. Z. Liu, L. Zhu, Z. Shen, W. Zhou, S. Z. D. Cheng, V. Percec and G. Ungar. "Interrelationships of Nanometer and Subnanometer Structures in a Polynorbornene Containing Second Generation Liquid-Crystalline Monodendrons as Side Groups." *Macromolecules*, **35**, 9426-9433 (2002).

507. S. N. Chvalun, M. A. Shcherbina, I. V. Bykova, J. Blackwell and V. Percec. "Two- and Three-Dimensional Mesophases Formed by Monodendrons Based on Gallic Acid with Partially Fluorinated Alkyl Tails." *Polym. Sci. Ser. A*, **44**, 1281-1289 (2002); *Vysokomol. Soedin. Ser. A Ser B.*, **44**, 2134-2143 (2002).

508. V. Percec, M. Sawamoto and C. J. Hawker, "Editorial Announcement." *J. Polym. Sci. Part A: Polym. Chem*. **41**, xi (2003).

509. V. Percec, T. K. Bera, M. Glodde, Q. Fu, V. S. K. Balagurusamy and P. A. Heiney. "Hierarchical Self-Assembly, Co-Assembly and Self-Organization of Novel Liquid Crystalline Lattices and Superlattices from Twin-Tapered Dendritic Benzamide and its Four-Cylindrical Bundle Supramolecular Polymer." *Chem. Eur. J*., **9**, 921-935 (2003).

510. I. Shiyanovskaya, K. D. Singer, V. Percec, T. K. Bera, Y. Miura and M. Glodde. "Charge Transport in Hexagonal Columnar Liquid Crystals Self-Organized from Supramolecular Cylinders Based on Acene Functionalyzed Dendrons." *Phys. Rev. B*., **76**, 035204(1-7) (2003).

511. I. M. Syed, V. Percec, R. G. Petschek and C. Rosenblatt. "Apparent Tricritical Behavior at a Nearly-Second-Order Nematic-Isotropic Phase Transition." *Phys. Rev. E*, **67**, 011704(1-4) (2003).

512. W.-J. Pao, F. Zhang, P. A. Heiney, C. Mitchell, W.-D. Cho and V. Percec. "Grazing Incidence X-ray Diffraction Study Films of Amphiphilic Monodendrons." *Phys. Rev. E.*, **67**, 021601(1-6) (2003).

513. G. Ungar, Y. Liu, X. Zeng, V. Percec and W.-D. Cho. "Giant Supramolecular Liquid Crystal Lattice." *Science*, **299**, 1208-1211 (2003). [Highlighted on the NSF web site]

514. V. Percec, B. Barboiu, C. Grigoras and T. K. Bera. "Universal Iterative Strategy for the Divergent Synthesis of Dendritic Macromolecules from Conventional Monomers by a Combination of Living Radical Polymerization and Irreversible TERminator Multifunctional INItiator (TERMINI)." *J. Am. Chem. Soc.*, **125**, 6503-6516 (2003).

515. V. Percec. "Catalyst Hunt Accelerates." *Nature*, **424**, 135-136 (2003).

516. V. Percec, M. Glodde, G. Johansson, V. S. K. Balagurusamy and P. A. Heiney. "Transformation of a Spherical Supramolecular Dendrimer into a Pyramidic Columnar Supramolecular Dendrimer Mediated by the Fluorophobic Effect." *Angew. Chem. Int. Ed.,* **42**, 4338-4342 (2003); *Angew. Chem*. **115**, 4474-4478(2003). [Featured in: "News and Views." D. A. Tomalia, *Nature Materials* **2**, 711-712 (2003); Front Cover of both German and English Editions.]

517. V. Percec, A. V. Popov, E. Ramirez-Castillo and O. Weichold. "Living Radical Polymerization of Vinyl Chloride Initiated with Iodoform and Catalyzed by Nascent Cu^0/TREN(PEI) in Water at 25 °C Proceeds by a New Competing Pathways Mechanism." *J. Polym. Sci. Part A: Polym. Chem.*, **41**, 3283-3299 (2003).

518. A. Rapp, I. Schnell, D. Sebastiani, S. P. Brown, V. Percec and W. Spiess. "Supramolecular Assembly of Dendritic Polymers Elucidated by ^1H and ^{13}C Solid-State NMR Spectroscopy." *J. Am. Chem. Soc.*, **125**, 13284-13297 (2003).

519. D. P. Dukesen, G. Ungar, V. S. K. Balagurusamy, V. Percec, M. Glodde and G. Johansson. "Application of Isomorphous Replacement in Structure Determination of Cubic and Columnar Phases." *J. Am. Chem. Soc.*, **125**, 15974-15980 (2003).

520. V. Percec, C. M. Mitchell, W.-D. Cho, S. Uchida, M. Glodde, G. Ungar, X. Zeng, Y. Liu, V. S. K. Balagurusamy, P. A. Heiney. "Designing Libraries of First Generation AB_3 and AB_2 Self-Assembling Dendrons via the Primary Structure Generated from Combinations of $(AB)_y$–AB_3 and $(AB)_y$–AB_2 Building Blocks." *J. Am. Chem. Soc*. **126**, 6078-6094 (2004).

521. V. Percec, M. Sawamoto and K. L. Wooley. "Editorial Announcement." *J. Polym. Sci. Part A: Polym. Chem*. **42**, xiv (2004).

522. V. Percec, C. Grigoras and H.-J Kim. "Towards Self-Assembling Dendritic Macromolecules from Conventional Monomers by a Combination of Living Radical Polymerization and Irreversible Terminator Multifunctional Initiator." *J. Polym. Sci. Part A: Polym. Chem*., **42**, 505-513 (2004).

523. X. Zeng, G. Ungar, Y. Liu, V. Percec, A. Dulcey and J. K. Hobbs. "Supramolecular Dendritic Liquid Quasicrystals." *Nature*, **428**, 157-160 (2004). [Featured in: "News and Views," M. Ciao, "Supramolecular Twelve-a-Side." *Nature*, **428**, 133 (2004); Highlighted in: G. H. Mehl in *Angew. Chem. Int. Ed*. **44**, 672-673 (2005). Highlighted on the NSF web site]

524. V. Percec, G. M. Golding, J. Smidrkal and O. Weichold. "$NiCl_2$(dppe)-Catalyzed Cross-Coupling of Aryl Mesylates, Arenesulfonates and Halides with Arylboronic Acids." *J. Org. Chem*., **69**, 3447-3452 (2004).

525. V. Percec, G. M. Golding, J. Smidrkal, O. Weichold. "$NiCl_2$(dppe)-Catalyzed Cross-Coupling of Aryl Mesylates, Arenesulfonates, and Halides with Arylboronic Acids." *ChemInform*, **35**, 99 (2004). [Full article: *J. Org. Chem*., **69**, 3447-3452 (2004)]

526. W. Mamdouh, H. Uji-i, A. E. Dulcey, V. Percec, S. De Feyter, F. C. De Schryver. "Expression of Molecular Chirality and Two-Dimensional Supramolecular Self-Assembly of Chiral, Racemic and Achiral Monodendrons at the Liquid-Solid Interface." *Langmui*r, **20**, 7678-7685 (2004).

527. V. Percec, A. Dulcey, V. S. K. Balagurusamy, Y. Miura, J. Smidrkal, M. Peterca, S. Nummelin, U. Edlund, S. D. Hudson, P. A. Heiney, H. Duan, S. N. Magonov and S. A. Vinogradov. "Self-Assembly of Amphiphilic Dendritic Dipeptides into Helical Pores." *Nature*, **430**, 764-768 (2004). [Highlighted in: M. Rouhi in *Chem. Eng. News*. **82**, 4 (2004) (August 16, 2004); Highlighted in: S. Borman in "Chemistry Highlights 2004." *Chem. Eng. News*. **82**, 53 (2004) (December 20), *ibid.*, front cover; Featured in: S. Hecht "Construction with Macromolecules." *Materials Today* **8,** March, 48-55 (2005); Highlighted on NSF web site]

528. V. Percec, A. V. Popov, E. Ramirez-Castillo, J. F. J. Coelho, L. A. Hinojosa–Falcon. "Non-Transition Metal-Catalyzed Living Radical Polymerization of Vinyl Chloride Initiated with Iodoform in Water at 25 °C." *J. Polym. Sci. Part A: Polym. Chem.,* **42**, 6267-6282 (2004).

529. V. Percec, A. V. Popov, E. Ramirez-Castillo and O. Weichold. "Acceleration of the Single Electron Transfer-Degenerative Chain Transfer Mediated Living Radical Polymerization (SET-DTLRP) of Vinyl Chloride in Water at 25 °C." *J. Polym. Sci. Part A: Polym. Chem.,* **42**, 6364-6374 (2004).

530. V. Percec, M. Sawamoto and K. L. Wooley. "Editorial Announcement." *J. Polym. Sci. Part A: Polym. Chem.* **43**, xi (2005).

531. V. Percec, A. V. Popov and E. Ramirez-Castillo. "Single-Electron-Transfer/Degenerative-Chain-Transfer Mediated Living Radical Polymerization of Vinyl Chloride Catalyzed by Thiourea Dioxide/Octyl Viologen/Tetrahydrofuran in Water at 25 °C." *J. Polym. Sci. Part A: Polym. Chem.* **43**, 287-295 (2005).

532. C. Grigoras and V. Percec. "Arenesulfonyl Bromides: The Second Universal Class of Functional Initiators for the Metal-Catalyzed Living Radical Polymerization of Methacrylates, Acrylates and Styrenes." *J. Polym. Sci. Part A: Polym. Chem.,* **43**, 319-330 (2005).

533. V. Percec, A. V. Popov, E. Ramirez-Castillo and J. F. J. Coelho. "Single Electron Transfer-Degenerative Chain Transfer Mediated Living Radical Polymerization (SET-DTLRP) of Vinyl Chloride Initiated with Methylene Iodide and Catalyzed by Sodium Dithionite." *J. Polym. Sci. Part A: Polym. Chem.,* **43**, 773-778 (2005).

534. V. Percec, A. V. Popov, E. Ramirez-Castillo, J. F. J. Coelho and L. A. Hinojosa–Falcon. "Phase Transfer Catalyzed Single Electron Transfer-Degenerative Chain Transfer Mediated Living Radical Polymerization (PTC-SET-DTLRP) of Vinyl Chloride Catalyzed by Sodium Dithionite and Initiated with Iodoform in Water at 43 °C." *J. Polym. Sci. Part A: Polym. Chem.,* **43**, 779-788 (2005).

535. V. Percec and A. V. Popov. "Functionalization of the Active Chain Ends of Poly(Vinyl Chloride) Obtained by Single Electron Transfer-Degenerative Chain Transfer Mediated Living Radical Polymerization (SET-DTLRP): Synthesis of Telechelic α, ω-Di(hydroxy)poly(vinyl chloride)." *J. Polym. Sci. Part A: Polym. Chem.,* **43**, 1255-1260 (2005).

536. V. Percec, T. Guliashvili, A. V. Popov and E. Ramirez-Castillo. "Synthesis of Poly(methyl methacrylate)-*b*-Poly(vinyl chloride)-*b*-Poly(methyl methacrylate) Block Copolymers by CuCl/2,2'-Bipyridine-Catalyzed Living Radical Block Copolymerization Initiated from α, ω-Di(iodo)poly(vinyl chloride) Prepared by Single Electron Transfer-Degenerative Chain Transfer Mediated Living Radical Polymerization." *J. Polym. Sci. Part A: Polym. Chem.,* **43**, 1478-1486 (2005).

537. V. Percec, T. Guliashvili, A. V. Popov, E. Ramirez-Castillo, J. F. J. Coelho and L. A. Hinojosa-Falcon. "Accelerated Synthesis of Poly(methyl methacrylate)-*b*-Poly(vinyl chloride)-*b*-Poly(methyl methacrylate) Block Copolymers by CuCl/Tris(2-dimethylaminoethyl)amine-Catalyzed Living Radical Block Copolymerization of Methyl Methacrylate Initiated with α, ω-Di(iodo)poly(vinyl chloride) in Dimethyl Sulfoxide at 90 °C." *J. Polym. Sci. Part A: Polym. Chem.,* **43**, 1649-1659 (2005).

538. V. Percec, T. Guliashvili, A. V. Popov, E. Ramirez-Castillo and L. A. Hinojosa-Falcon. "Ultrafast Synthesis of Poly(methyl methacrylate)-*b*-Poly(vinyl chloride)-*b*-Poly(methyl methacrylate) Block Copolymers by Cu(0)/ Tris(2-dimethylaminoethyl)amine-Catalyzed Living Radical Block Copolymerization of Methyl Methacrylate Initiated with α, ω-Di(iodo)poly(vinyl chloride) in the Presence of Dimethyl Sulfoxide at 25 °C." *J. Polym. Sci. Part A: Polym. Chem.,* **43**, 1660-1669 (2005).

539. V. Percec, T. Guliashvili, A. V. Popov and E. Ramirez-Castillo. "Catalytic Effect of Dimethyl Sulfoxide in Cu(0)/ Tris(2-dimethylaminoethyl)amine-Catalyzed Living Radical Polymerization of Methyl Methacrylate at 0 to 90 °C

Initiated from CH_3CHClI as Model Compound for α, ω-Di(iodo)poly(vinyl chloride) Chain Ends." *J. Polym. Sci. Part A: Polym. Chem.,* **43**, 1935-1947 (2005).

540. V. Percec, T. Guliashvili and A. V. Popov. "Ultrafast Synthesis of Poly(methyl acrylate)-*b*-Poly(vinyl chloride)-*b*-Poly(methyl acrylate)Cu(0)/Tris(2-dimethylaminoethyl)amine-Catalyzed Living Radical Polymerization and Block Copolymerization of Methyl Acrylate Initiated with 1,1-Chloroiodoethane and α, ω-Di(iodo)poly(vinyl chloride) in Dimethyl Sulfoxide." *J. Polym. Sci. Part A: Polym. Chem.,* **43**, 1948-1954 (2005).

541. V. Percec, E. Ramirez-Castillo, A. V. Popov, L. A. Hinojosa-Falcon and T. Guliashvili. "Ultrafast Single Electron Transfer -Degenerative Chain Transfer Living Radical Polymerization of Acrylates Initiated with Iodoform in Water at Room Temperature and Catalyzed by Sodium Dithionate." *J. Polym. Sci. Part A: Polym. Chem.,* **43**, 2178-2184 (2005).

542. V. Percec, E. Ramirez-Castillo, L. A. Hinojosa–Falcon and A. V. Popov. "Synthesis of Ultrahigh Molar Mass, Structural Defects Free Poly(Vinyl Chloride) with High Syndiotacticity and Glass Transition Temperature by Single Electron Transfer-Degenerative Transfer Living Radical Polymerization (SET-DTLRP)." *J. Polym. Sci. Part A: Polym. Chem.,* **43**, 2185-2187 (2005).

543. V. Percec, A. V. Popov, E. Ramirez-Castillo and L. A. Hinojosa–Falcon. "Synthesis of Poly(Vinyl Chloride)-b-Poly(2-Ethylhexyl Acrylate)-b-Poly(Vinyl Chloride) by Competitive Single Electron Transfer-Degenerative Chain Transfer Mediated Living Radical Polymerization of Vinyl Chloride Initiated from α, ω-Di(Iodo)poly(2-ethylhexyl acrylate) and Catalyzed by Sodium Dithionate in Water." *J. Polym. Sci. Part A: Polym. Chem.,* **43**, 2276-2280 (2005).

544. V. Percec, C. Grigoras. "Arenesulfonyl Iodides: The Third Universal Class of Functional Initiators for the Metal-Catalyzed Living Radical Polymerization of Methacrylates and Styrenes." *J. Polym. Sci. Part A: Polym. Chem*., **43**, 3920-3931 (2005).

545. V. Percec, C. Grigoras, T. K. Bera, B. Barboiu and P. Bissel. "An Accelerated Iterative Strategy for the Divergent Synthesis of Dendritic Macromolecules by Using a Combination of Living Radical Polymerization and Irreversible Terminator Multifunctional Initiator." *J. Polym. Sci. Part A: Polym. Chem*., **43**, 4894-4906 (2005).

546. V. Percec and C. Grigoras. "N-Chloro Amides, Lactams, Carbamates and Imides. New Classes of Initiators for the Metal-Catalyzed Living Radical Polymerization of Methacrylates." *J. Polym. Sci. Part A: Polym. Chem*., **43**, 5283-5299 (2005).

547. V. Percec and C. Grigoras. "Catalytic Effect of Ionic Liquids in the Cu_2O/2,2'-bipyridine Catalyzed Living Radical Polymerization of Methyl Methacrylate Initiated with Arenesulfonyl Chlorides." *J. Polym. Sci. Part A: Polym. Chem.*, **43**, 5609-5619 (2005).

548. V. Percec, M. R. Imam, T. K. Bera, V. S. K. Balagurusamy, M. Peterca and P. A. Heiney. "Self-Assembly of Semifluorinated Janus-Dendritic Benzamides into Bilayered Pyramidal Columns." *Angew. Chem. Int. Ed*., **44**, 4739-4745 (2005); *Angew. Chem.*, **117**, 4817-4823 (2005). [Highlighted in: M. Freemantle in *Chem. Eng. News*, August 15, 2005]

549. V. Percec, A. E. Dulcey, M. Peterca, M. Ilies, J. Ladislaw, B. M. Rosen, U. Edlund and P. A. Heiney. "The Internal Structure of Helical Pores Self-Assembled from Dendritic Dipeptides is Stereochemically Programmed and Allosterically Regulated." *Angew. Chem. Int. Ed*., **44**, 6516-6521 (2005); *Angew. Chem.*, **117**, 6674-6679 (2005).

550. V. Percec, A. E. Dulcey, M. Peterca, M. Ilies, Y. Miura, U. Edlund and P. A. Heiney. "Helical Porous Protein Mimics Self-Assembled from the Amphiphilic Dendritic Dipeptides." *Aust. J. Chem*. **58**, 472-482 (2005). [Front Cover]

551. V. Percec, J. G. Rudick and E. Aqad. "Diminished Helical Character in *Para*-Substituted *Cis*-Transoidal Polyphenylacetylene Due to Intramolecular Cyclization." *Macromolecules*, **38**, 7205-7206 (2005).

552. V. Percec and J. G. Rudick. "Independent Electrocyclization and Oxidative Chain Cleavage Along the Backbone of *Cis*-Polyphenylacetylene." *Macromolecules*, **38**, 7241-7250 (2005).

553. V. Percec, J. G. Rudick, M. Peterca, M. Wegner, M. Obata, C. M. Mitchell, W.-D. Cho, V. S. K. Balagurusamy and P. A. Heiney. "Thermoreversible *Cis*-Cisoidal to *Cis*-Transoidal Isomerization of Helical Dendronized Polyphenylacetylenes." *J. Am. Chem. Soc.* **127**, 15257-15264 (2005).

554. V. Percec, A.E. Dulcey, M. Peterca, M. Ilies, M. J. Sienkowska and P. A. Heiney. "Programming the Internal Structure and Stability of Helical Pores Self-Assembled from Dendritic Dipeptides via the Protective Groups of the Peptide." *J. Am. Chem. Soc.* **127**, 17902-17909 (2005).

555. W. Mamdouh, H. Uji-i, J. Ladislaw, A. Dulcey, V. Percec, F. C. De Schryver and S. De Feyter. "Solvent Controlled Self-Assembly at the Liquid/Solid Interface Revealed by STM." *J. Am. Chem. Soc*. **128**, 317-325 (2006).

556. V. Percec, A. E. Dulcey, M. Peterca, M. Ilies, S. Nummelin, M. J. Sienkowska and P. A. Heiney. "Principles of Self-Assembly of Helical Pores from Dendritic Dipeptides." *Proc. Natl. Acad. Sci. U.S.A*. **103**, 2518-2523 (2006).

557. V. Percec, M. Peterca, M. J. Sienkowska, M. A. Ilies, E. Aqad, J. Smidrkal and P. A. Heiney. "Synthesis and Retrostructural Analysis of Libraries of AB_3 and Constitutional Isomeric AB_2 Phenylpropyl Ether Based Supramolecular Dendrimers." *J. Am. Chem. Soc.* **128**, 3324-3334 (2006).

558. J. F. J. Coelho, A. M. F. P. Silva, A. V. Popov, V. Percec, M. V. Abreu, P. M. O. F. Goncalves and N. H. Gil. "Single Electron Transfer-Degenerative Chain Transfer Radical Polymerization of n-Butyl Acrylate Catalyzed by $Na_2S_2O_4$ in Water Media." *J. Polym. Sci. Part A: Polym. Chem*. **44**, 2809-2825 (2006).

559. J. F. J. Coelho, A. M. F. P. Silva, A. V. Popov, V. Percec, M. V. Abreu, P. M. O. F. Goncalves and N. H. Gil. "Synthesis of Poly(vinyl chloride)-*b*-Poly(*n*-butyl acrylate)-*b*-Poly(vinyl chloride) by the Competitive Single-Electron-Transfer/Degenerative-Chain-Transfer-Mediated Living Radical Polymerization in Water." *J. Polym. Sci. Part A: Polym. Chem*. **44**, 3001-3008 (2006).

560. M. Peterca, V. Percec, A. E. Dulcey, S. Nummelin, S. Korey, M. Ilies, P. A. Heiney. "Self-Assembly, Structural and Retrostructural Analysis of Dendritic Dipeptide Pores Undergoing Reversible Circular to Elliptical Shape Change." *J. Am. Chem. Soc*. **128**, 6713-6720 (2006).

561. V. Percec, J. G. Rudick, S. R. Staley, M. Wagner, M. Obata, C. M. Mitchell, W.-D. Cho, V. S. K. Balagurusamy, J. N. Lowe, M. Glodde, O. Weichold, K. J. Chung, N. Ghionni, S. N. Magonov and P. A. Heiney. "Synthesis, Structural Analysis, and Visualization of a Library of Dendronized Polyphenylacetylenes." *Chem. Eur. J.* **12**, 5731-5746 (2006).

562. V. Percec, M. N. Holerca, S. Nummelin, J. J. Morrison, M. Glodde, J. Smidrkal, M. Peterca, S. Uchida, V. S. K. Balagurusamy, M. J. Sienkowska and P. A. Heiney. "Exploring and Expanding the Structural Diversity of Self-Assembling Dendrons through Combinations of AB, Constitutional Isomeric AB_2, and AB_3 Biphenyl-4-Methyl Ether Building Blocks." *Chem. Eur. J*. **12**, 6216-6241 (2006). [Front cover]

563. V. Percec, M. Glodde, M. Peterca, A. Rapp, I. Schnell, H. W. Spiess, T. K. Bera, Y. Miura, V. S. K. Balagurusamy, E. Aqad and P. A. Heiney. "Self-Assembly of Semifluorinated Dendrons Attached to Electron-Donor Groups Mediates Their π-Stacking via a Helical Pyramidal Column." *Chem. Eur. J.* **12**, 6298-6314 (2006).

564. V. Percec, G. Ungar, M. Peterca. "Self-Assembly in Action." *Science*, **313**, 55-56 (2006).

565. V. Percec "Bioinspired Supramolecular Liquid Crystals." *Phil. Trans. R. Soc. A*, **364**, 2709-2719 (2006).

566. V. Percec, J. G. Rudick, M. Wagner, M. Obata, C. M. Mitchell, W.-D. Cho, S. N. Magonov. "AFM Visualization of Individual and Periodic Assemblies of a Helical Dendronized Polyphenylacetylene on Graphite." *Macromolecules*, **39**, 7342-7351 (2006).

567. V. Percec, T. Guliashvili, J. S. Ladislaw, A. Wistrand, A. Stjerndahl, M. J. Sienkowska, M. J. Monteiro, S. Sahoo. "Ultrafast Synthesis of Ultrahigh Molar Mass Polymers by Metal-Catalyzed Living Radical Polymerization of Acrylates, Methacrylates, and Vinyl Chloride Mediated by SET at 25 ºC." *J. Am. Chem. Soc.*, **128**, 14156-14165 (2006). Highlighted in: Borman, S. *Chem. & Eng. News*, 2006, October 30, pg. 40-41; NSF Web site; Aida, T. *Nature* 2007, 446, 235

568. S. De Feyter, H. Uji-I, W. Mamdoih, A. Miura, J. Zhang, P. Jonkheijm, A. P. H. J. Schenning, E. W. Meijer, Z. Chen, F. Würthner, N. Schuurmans, J. van Esch, B. Feringa, A. E. Dulcey, V. Percec and F. C. De Schryver. "Supramolecular Chemistry at the Liquid/Solid Interface by Scanning Tunneling Microscopy." *Int. J. Nanotechnology*, **3**, 462-479 (2006).

569. V. Percec, E. Aqad, M. Peterca, J. G. Rudick, L. Lemon, J. C. Ronda, B. B. De, P. A. Heiney and E. W. Meijer. "Steric Communication of Chiral Information Observed in Dendronized Polyacetylenes." *J. Am. Chem. Soc.*, **128,** 16365-16372 (2006).

570. S.N. Chvalun, M.A. Shcherbina, A.N. Yakunin, J. Blackwell, V. Percec. "Structure of Gyroid Mesophase Formed by Monodendrons with Fluorinated Alkyl Tails." *Polym. Sci. Ser. A*. **49**, 158-167 (2007); Russian version: *Vysokomol. Soedin. Ser. A*. **49**, 266-278(2007).

571. V. Percec, E. Aqad, M. Peterca, M.R. Imam, M. Glodde, T.K. Bera, Y. Miura, V.S.K.Balagurusamy, P.C. Ewbank, F. Wurthner, P.A. Heiney. "Self-Assembly of Semifluorinated Minidendrons Attached to Electron-Acceptor Groups into Pyramidal Columns." *Chem. Eur. J.*, **13**, 3330-3345(2007).

572. V. Percec, J. Smidrkal, M. Peterca, C.M. Mitchell, S. Nummelin, A.E. Dulcey, M.J. Sienkowska, P.A. Heiney. "Self-Assembly of Hybrid Dendrons with Complex Primary Structure into Functional Helical Pores*." Chem. Eur. J.,* **13,** 3989-4007(2007). DOI: 10.1002/chem.200601582; Published on Line: 16 Feb 2007.

573. J. G. Rudick, V. Percec. "Helical Chirality in Dendronized Polyarylacetylenes." (Invited Perspective) *New. J. Chem.*, **31**, 1083-1096(2007). DOI: 10.1039/b616449h; First Published on Web: 21 February 2007.

574. T. Guliashvili and V. Percec. "A Comparative Computation Study of the Homolytic and Heterolytic Bond Dissociation Energies of Relevance to the Activation Step During ATRP and SET-LRP of Vinyl Monomers." *J. Polym. Sci.: Part A: Polym. Chem*., **45**, 1607-1618(2007).

575. M. J. Monteiro, T. Guliashvili, V. Percec. "Kinetic Simulation of SET-LRP of Methyl Acrylate at 25^{o}C." *J. Polym. Sci.: Part A: Polym. Chem*., **45**, 1835-1847(2007).

576. V. Percec, A.E. Dulcey, M. Peterca, P. Adelman, R. Samant, V.S.K. Balagurusamy, P.A. Heiney. "Helical Pores Self-Assembled from Homochiral Dendritic Dipeptides Based on L-Tyr and Nonpolar α-Amino Acids." *J. Am. Chem. Soc.* **129**, 5992-6002(2007). DOI: 10.1021/ja071088k; Published on Web 04/13/2007.

577. B.M. Rosen and V. Percec. "A Reaction to Stress." *Nature,* **446**, 381-382(2007).

578. V. Percec, B.C. Won, M. Peterca, P.A. Heiney. "Expanding the Structural Diversity of Self-Assembling Dendrons and Supramolecular Dendrimers *via* Complex Building Blocks." *J. Am. Chem. Soc*. **129**, 11265-11278(2007).

579. V. Percec, J.G. Rudick, M. Peterca, E. Aqad, M.R. Imam, P.A. Heiney. "Synthesis, Structural and Retrostructural Analysis of Helical Dendronized Poly(1-Naphthylacetylene)s." *J. Polym. Sci.: Part A: Polym. Chem*. **45**, 4974-4987(2007).

580. Lligadas, G.; V. Percec. "Synthesis of Perfectly Bifunctional Polyacrylates by SET-LRP." *J. Polym. Sci.: Part A: Polym. Chem*. **45**, 4684-4695(2007).

581. V. Percec, M. Peterca, J.G. Rudick, E. Aqad, M.R. Imam, P.A. Heiney. "Self-Assembling Phenylpropyl Ether Dendronized Helical Polyphenylacetylenes." *Chem. Eur. J*. **13**, 9572-9581(2007).

582. B. M. Rosen and V. Percec. "A Density Functional Theory (DFT) Computational Study of the Role of Ligand on the Stability of Cu^{I} and Cu^{II} Species Associated with ATRP and SET-LRP." *J. Polym. Sci.: Part A: Polym. Chem*. **45**, 4950-4964(2007).

583. M.S. Kaucher, M. Peterca, A.E. Dulcey, A.J. Kim, S.A. Vinogradov, D.A. Hammer, P.A. Heiney, V. Percec. "Selective Transport of Water Mediated by Porous Dendritic Dipeptides." *J. Am. Chem. Soc*. **129**, 11698-11699(2007).

584. G. Lligadas, J.S. Ladislaw, T. Guliashvili, V. Percec. "Functionally Terminated Poly(methyl acrylate) by SET-LRP Initiated with $CHBr_3$ and CHI_3." *J. Polym. Sci. : Part A: Polym. Chem*. **46**, 278-288(2008).

585. J.F.J. Coelho, E.Y. Carvalho, D.S. Marques, A.V. Popov, V. Percec, P.M.F.O. Goncalves, M.H. Gil. "Synthesis of Poly(Ethyl Acrylate) by Single Electron Transfer-Degenerative Chain Transfer Living Radical Polymerization in Water Catalyzed by $Na_2S_2O_4$." *J. Polym. Sci.: Part A: Polym. Chem*. **46**, 421-432(2008).

586. M.A. Shcherbina, S.N. Chvalun, V. Percec. "A Comparative Analysis of Self-Assembly in Poly(methacrylates) with Bulky Side Substituents of Different Molecular Masses in the Solid State and in Solutions." *Polym. Sci. Ser. A*, **50**, 166-173(2008). Russian version in : *Visokomol. Soedin. Ser. A*, **50**, 1-10(2008).

587. V. Percec, M. Peterca, M. E. Yurchenko, J. G. Rudick, P.A. Heiney. "Thixotropic Twin-Dendritic Organogelators." *Chem. Eur. J.* **14**, 909-918(2008).

588. V. Percec, J.G. Rudick, M. Peterca, P.A. Heiney. "Nanomechanical Function from Self-Organizable Dendronized Helical Polyphenylacetylenes." *J. Am. Chem. Soc*. **130**, 7503-7508(2008). *Highlighted* by B.L. Feringa and W.R. Browne in: *Nature Nanotechnology* **3**, 383-384(2008). *Highlighted* by N. Withers in *Nature Chemistry* 30 May 2008, doi:10.1038/nchem.18.

589. V. Percec, J.G. Rudick, M. Peterca, M.E. Yurchenko, J. Smidrkal, P.A. Heiney. "Supramolecular Structural Diversity Among First Generation Hybrid Dendrimers and Twin-Dendrons." *Chem. Eur. J*. **14**, 3355-3362(2008).

590. G. Lligadas, V. Percec. "Ultrafast SET-LRP of Methyl Acrylate at 25°C in Alcohols." *J. Polym. Sci. : Part A: Polym. Chem.* **46**, 2745-2754(2008).

591. V. Duzhko, K.D. Singer, E. Aqad, M. Peterca, M. Imam, V. Percec. "Long-Range Electron Transport in Self-Organizing *n*-Type Organic Material." *Applied. Phys. Lett*. **92**, 113312-1-113312-3(2008).

592. G. Lligadas, V. Percec. "SET-LRP of Acrylates in the Presence of Radical Inhibitors." *J. Polym. Sci. : Part A: Polym. Chem.* **46**, 3174-3181(2008).

593. J. G. Rudick, V. Percec. "Induced Helical Backbone Conformations of Self-Organizable Dendronized Polymers." *Acc. Chem. Res*. **41**, 1641-1652(2008).

594. B.M. Rosen, C. Huang, V. Percec. "Sequential Ni-Catalyzed Borylation and Cross-Coupling of Aryl Halides via in-situ Prepared Neopentylglycolborane." *Org. Lett.* **10**, 2597-2600(2008).

595. G. Lligadas, V. Percec. "Alkyl Chloride Initiators for SET-LRP of Methyl Acrylate." *J. Polym. Sci. Part A: Polym. Chem.* **46**, 4917-4926(2008).

596. B. M. Rosen, V. Percec. "Implications of Monomer and Initiator Structure on the Dissociative Electron Transfer Step in SET-LRP." *J. Polym. Sci. Part A: Polym. Chem.* **46**, 5663-5697(2008).

597. V. Percec, M. Peterca, A.E. Dulcey, M.R. Imam, S.D. Hudson, S. Nummelin, P. Adelman, P.A. Heiney. "Hollow Spherical Supramolecular Dendrimers." *J. Am. Chem. Soc*. **130**, 13079-13094(2008).

598. J. G. Rudick, V. Percec. "Nanomechanical Function Made Possible by Suppressing Structural Transformations of *Cis*-Polyarylacetylenes." *Macromol. Chem. Phys*. **209**, 1759-1768(2008).

599. G. Lligadas, V. Percec. "A Comparative Analysis of SET-LRP of Methyl Acrylate in Solvents Mediating Different Degrees of Disproportionation of Cu(I)Br." *J. Polym. Sci. Part A: Polym. Chem.* **46**, 6880-6895(2008).

600. J. F. J. Coelho, E.Y. Carvalho, D. S. Marques, A. V. Popov, V. Percec, M. H. Gil. "Influence of the Isomeric Structures of Butyl Acrylate on its Polymerization by SETDT-LRP in Water Catalyzed by $Na_2S_2O_4$." *J. Polym. Sci. Part A: Polym. Chem.* **46**, 6542-6551(2008).

601. G. Lligadas, B.M. Rosen, M.J. Monteiro, V. Percec." Solvent Choice Differentiates SET-LRP and Cu-Mediated Radical Polymerization with non-First Order Kinetics." *Macromolecules*, **41**, 8360-8364(2008).

602. G. Lligadas, B.M. Rosen, C.A. Bell, M.J. Monteiro, V. Percec. "The Effect of Cu(0) Particle Size on the Kinetics of SET-LRP in DMSO and Cu-Mediated Radical Polymerization in MeCN at 25ºC." *Macromolecules*, **41**, 8365-8371(2008).

603. M. Peterca, V. Percec, M.R. Imam, P. Leowanawat, K. Morimitsu, P.A. Heiney. "The Molecular Structure of Helical Supramolecular Dendrimers." *J. Am. Chem. Soc*. **130**, 14840-14852(2008).

604. D.A. Wilson, C.J. Wilson, B.M. Rosen, V. Percec. "Two-Step, One-Pot Ni-Catalyzed Neopentylglycolborylation and Complementary Pd/Ni-Catalyzed Cross-Coupling with Aryl Halides, Mesylates and Tosylates." *Org. Lett*. **10**, 4879-4882(2008).

605. V. Percec, M.R. Imam, M. Peterca, W.-D. Cho, P.A. Heiney. "Self-Assembling Dendronized Dendrimers." *Israel J. Chem.* **49**, 55-70(2009). Front Cover of Issue 1, Vol. 49(2009).

606. M.J. Sienkowska, V. Percec. "Synthesis of α, ω-Di(iodo)PVC and of Four-Arm Star PVC with Identical Active Chain Ends by SET-DTLRP of VC Initiated with Bifunctional and Tetrafunctional Initiators." *J. Polym. Sci. Part A: Polym. Chem*. **47**, 628-634(2009).

607. V. Percec, M.J. Sienkowska. "Synthesis of the Four-Arm Star-Block Copolymer [PVC-PBA-CH(CH_3)-CO-OCH_2]$_4$C by SET-DTLRP Initiated from a Tetrafunctional Initiator." *J. Polym. Sci. Part A: Polym. Chem*. **47**, 635-652(2009).

608. V. Percec, M.R. Imam, M. Peterca, D.A. Wilson, P.A. Heiney. "Self-Assembly of Dendritic Crowns into Chiral Supramolecular Spheres." *J. Am. Chem. Soc*. **131**, 1294-1304(2009)**.**

609. V. Percec, M.R. Imam, M. Peterca, D.A. Wilson, R. Graf, H.W. Spiess, V.S.K. Balagurusamy, P.A. Heiney. "Self-Assembly of Dendronized Triphenylenes into Helical Pyramidal Columns and Chiral Spheres." *J. Am. Chem. Soc*. **131**, 7662-7677(2009). DOI: 10.1021/ja8094944 Published on line March 23, 2009; Front Cover of *JACS* No 22, June 10, 2009 and *JACS* Image Challenge.

610. N.H. Nguyen, B.M. Rosen, G. Lligadas, V. Percec. "Surface-Dependent Kinetics of Cu(0)-Wire-Catalyzed Single-Electron Transfer Living Radical Polymerization of Methyl Acrylate in DMSO at 25 ºC." *Macromolecules*, **42**, 2379-2386(2009).

611. B.M. Rosen, V. Percec. "Single-Electron Transfer and Single-Electron Transfer Degenerative Chain Transfer Living Radical Polymerization." *Chem. Rev*. **109,** 5069-5119(2009).

612. A.J. Kim, M.S. Kaucher, K.P. Davis, M.R. Imam, N.A. Christian, D.H. Levine, M. Peterca, F.S. Bates, V. Percec, D.A. Hammer. "Proton Transport from Dendritic Helical Pore Incorporated Polymersomes." *Adv. Funct. Mater*. **19**, 2930-2936(2009).

613. B.M. Rosen, C.J. Wilson, D.A. Wilson, M. Peterca, M.R. Imam, V. Percec. "Dendron Mediated Self-Assembly, Disassembly and Self-Organization of Complex Systems." *Chem. Rev*. **109**, 6275-6540(2009).

614. V. Percec, M. Peterca, Y. Tsuda, B.M. Rosen, S. Uchida, M.R. Imam, G. Ungar, P.A. Heiney. "Elucidating the Structure of Pm3n Cubic Phase of Supramolecular Dendrimers through the Modification of their Aliphatic to Aromatic Volume Ratio." *Chem. Eur. J*. 15, 8994-9004(2009). *Internal Front Cover*.

615. B.M. Rosen, G. Lligadas, C. Hahn, V. Percec."Synthesis of Dendrimers through Divergent Iterative Thio-Bromo "Click"-Chemistry." *J. Polym. Sci. Part A: Polym. Chem*. **47**, 3931-3939(2009).

616. B.M. Rosen, G. Lligadas, C. Hahn, V. Percec."Synthesis of Dendritic Macromolecules through Divergent Iterative Thio-Bromo "Click"-Chemistry and SET-LRP." *J. Polym. Sci. Part A: Polym. Chem*. **47**, 3940-3948(2009).

617. M.R. Imam, M. Peterca, U. Edlund, V.S.K. Balagurusamy, V. Percec."Dendronized Supramolecular Polymers Self-Assembled from Dendritic Ionic Liquids." *J. Polym. Sci. Part A: Polym. Chem.* **47**, 4165-4193(2009).

618. M.J. Sienkowska, B.M. Rosen, V. Percec. "SET-LRP of Vinyl Chloride Initiated with $CHBr_3$ in DMSO at 25ºC." *J. Polym. Sci. Part A: Polym. Chem*. **47**, 4130-4140(2009).

619. N.H. Nguyen, B.M. Rosen, X. Jiang, S. Fleischmann, V. Percec. "New Efficient Reaction Media for SET-LRP Produced from Binary Mixtures of Organic Solvents and H_2O." *J. Polym. Sci. Part A: Polym. Chem.* **47**, 5577-5590(2009).

620. J.F.J. Coelho, J. Gois, A.C. Fonseca, R.A. Carvalho, A.V. Popov, V. Percec, M.H. Jil. "Synthesis of Poly(2-Methoxyethyl Acrylate) by Single Electron Transfer-Degenerative Transfer Living Radical Polymerization Catalyzed by $Na_2S_2O_4$ in Water." *J. Polym. Sci.: Part A: Polym. Chem.* **47**, 4454-4463(2009).

621. X. Jiang, S. Fleischmann, N.H. Nguyen, B.M. Rosen, V. Percec. "Cooperative and Synergistic Solvent Effects in SET-LRP of MA." *J. Polym. Sci.: Part A: Polym. Chem.* **47**, 5591-5605(2009).

622. B.M. Rosen, X. Jiang, C.J. Wilson, N.H. Nguyen, M.J. Monteiro, V. Percec. "The Disproportionation of Cu(I)X Mediated by Ligand and Solvent into Cu(0) and Cu(II)X_2 and its Implications for SET-LRP." *J. Polym. Sci.: Part A: Polym. Chem.* **47**, 5606-5628(2009).

623. N.H. Nguyen, X. Jiang, S. Fleischmann, B.M. Rosen, V. Percec. "The Effect of Ligand on the Rate of Propagation of Cu(0)-Wire Catalyzed SET-LRP of MA in DMSO at 25°C." *J. Polym. Sci.: Part A: Polym. Chem.* **47**, 5629-5638(2009).

624. C. Moldoveanu, D.A. Wilson, C.J. Wilson, P. Corcoran, B.M. Rosen, V. Percec. "Neopentylglycolborylation of Aryl Chlorides Catalyzed by the Mixed Ligand System $NiCl_2$(dppp)dppf." *Org. Lett.* **11**, 4974-4977(2009).

625. J.F.J. Coelho, P.V. Mendonca, A.V. Popov, V. Percec, P.M.O.F. Goncalves, M.H. Gil. "Synthesis of High Glass Transition Temperature Copolymers Based on Poly(vinyl chloride) via Single Electron Transfer-Degenerative Chain Transfer Mediated Living Radical Polymerization (SET-DTLRP) of Vinyl Chloride in Water." *J. Polym. Sci.: Part A: Polym. Chem.* **47**, 7021-7031(2009).

626. B.M. Rosen, D.A. Wilson, C.J. Wilson, M. Peterca, B.C. Won, C. Huang, L.R. Lipski, X. Zeng, G. Ungar, P.A. Heiney, V. Percec. "Predicting the Structure of Supramolecular Dendrimers via the Analysis of Libraries of AB_3 and Constitutional Isomeric AB_2 Biphenylpropyl Ether Self-Assembling Dendrons." *J. Am. Chem. Soc.* **131**, 17500-17521(2009).

627. V. Percec. "Introduction to Frontiers in Polymer Synthesis." *Chem. Rev.* **109**, 4961-4962 (2009).

628. T. Hatano, B.M. Rosen, V. Percec. "SET-LRP of Vinyl Chloride Initiated with $CHBr_3$ and Catalyzed by Cu(0)-Wire/TREN in DMSO at 25°C." *J. Polym. Sci.: Part A: Polym. Chem.* **48**, 164-172(2010).

629. X. Jiang, B.M. Rosen, V. Percec. "Mimiking "Nascent" Cu(0) Mediated SET-LRP of Methyl Acrylate in DMSO at 25 °C Leads to Complete Conversion in Few Minutes." *J. Polym. Sci.: Part A: Polym. Chem.* **48**, 403-409(2010).

630. S. Fleischmann, B.M. Rosen, V. Percec. "SET-LRP of Acrylates in Air." *J. Polym. Sci.: Part A: Polym. Chem.* **48**, 1190-1196(2010).

631. N.H. Nguyen, B.M. Rosen, V. Percec. "SET-LRP of *N*, *N*-Dimethylacrylamide and of *N*-Isopropylacrylamide at 25 °C in Protic and in Binary Mixtures of Protic and Dipolar Aprotic Solvents with Water." *J. Polym. Sci.: Part A: Polym. Chem.* **48**, 1752-1763(2010).

632. C. Moldoveanu, D.A. Wilson, C.J. Wilson, B.M. Rosen, V. Percec. "Neopentylglycolborylation of *Ortho*-Substituted Aryl Halides Catalyzed by the Mixed Ligand Systems $NiCl_2$(dppp)/Ligand." *Featured Article* in *J. Org. Chem.* **75**, 5438-5452(2010).

633. V. Percec, D.A. Wilson, P. Leowanawat, C.J. Wilson, A.D. Hugh, M.S. Kaucher, D.A. Hammer, D.H. Levine, A.J. Kim, F.S. Bates, K.P. Davis, T.P. Lodge, M.L. Klein, R. DeVane, E. Aqad, B.M. Rosen, A.O. Argintaru, M.J. Sienkowska, K. Rissanen, S. Nummelin, J. Ropponen. "Self-Assembly of Janus-Dendrimers into Monodisperse Dendrimersomes and Other Complex Architectures." *Science* **328**, 1009-1014(2010). Highlighted by: S. Borman *Chem. & Eng. News*. **88**(21) May 24, p. 7(2010); and by: S.K. Ritter, R. Bryson, T.K. Blair *Chem. & Eng. News*. **88**(51) December 20, p. 13-18(2010).

634. D.A. Wilson, C.J. Wilson, C. Moldoveanu, A.-M. Resmerita, P. Corcoran. L. Hoang, B.M. Rosen, V. Percec. "Neopentylglycolborylation of Aryl Mesylates and Tosylates Catalyzed by Ni-Based Mixed Ligand System Activated by Zn." *J. Am. Chem. Soc.* **132**, 1800-1801(2010).

635. S. Fleischmann and V. Percec. "SET-LRP of Methyl Methacrylate Initiated with CCl_4 in the Presence and Absence of Air." *J. Polym. Sci.: Part A: Polym. Chem*. **48**, 2243-2250(2010).

636. S. Fleischmann and V. Percec. "SET-LRP of Methyl Methacrylate Initiated with Sulfonyl Halides." *J. Polym. Sci.: Part A: Polym. Chem*. **48**, 2236-2242 (2010).

637. S. Fleischmann and V. Percec. "Synthesis of Well-Defined Photoresist Materials by SET-LRP." *J. Polym. Sci.: Part A: Polym. Chem*. **48**, 2251-2255 (2010).

638. S. Fleischmann and V. Percec. "Copolymerization of Methacrylic Acid with Methyl Methacrylate by SET-LRP." *J. Polym. Sci.: Part A: Polym. Chem*. **48**, 4884-4888(2010).

639. S. Fleischmann and V. Percec. "SET-LRP of MMA in Acetic Acid." *J. Polym. Sci.: Part A: Polym. Chem*. **48**, 4889-4893(2010).

640. B.M. Rosen, M. Peterca, C. Huang, X. Zeng, G. Ungar, V. Percec. "Deconstruction as a Strategy for the Design of Libraries of Self-Assembling Dendrons." *Angew. Chem. Int. Ed*. **49**, 7002-7005(2010)**.** *VIP.*

641. C.J. Wilson, D.A. Wilson, A.E. Feiring, V. Percec. "Disassembly via an Environmentally Friendly and Efficient Fluorous Phase Constructed with Dendritic Architectures." *J. Polym. Sci.: Part A: Polym. Chem*. **48**, 2498-2508(2010).

642. X. Jiang, B.M. Rosen, V. Percec. "Immortal SET-LRP Mediated by Cu(0) Wire." *J. Polym. Sci.: Part A: Polym*. **48**, 2498-2508(2010).

643. M. Peterca, M.R. Imam, P. Leowanawat, B.M. Rosen, D.A. Wilson, C.J. Wilson, X. Zeng, G. Ungar, PA. Heiney, V. Percec. "Self-Assembly of Hybrid Dendrons into Doubly-Segregated Supramolecular Polyhedral Columns and Vesicles."*J. Am. Chem. Soc*. **132**, 11288-11305(2010).

644. N.H. Nguyen, V. Percec. "Dramatic Acceleration of SET-LRP of Methyl Acrylate Catalyzed with Activated Cu(0) Wire." *J. Polym. Sci.: Part A: Polym. Chem*. **48,** 5109-5119(2010).

645. P. Leowanawat, A.-M. Resmerita, C. Moldoveanu, C. Liu, N. Zhang, D.A. Wilson, L.M. Hoang, B.M. Rosen, V. Percec. "Zero-Valent Metals Accelerate the Neopentylglycolborylation of Aryl Halides Catalyzed by $NiCl_2$-Based Mixed-Ligand Systems." *J. Org. Chem.* **75**, 7822-7828(2010).

646. M. Peterca, V. Percec. "Recasting Metal Alloy Phases with Block Copolymers." *Science* **330**, 333-334(2010).

647. N.H. Nguyen, B.M. Rosen, V. Percec. "Improving the Initiation Efficiency in the SET-LRP of Methyl Acrylate with Electronic Chain-End Mimics." *J. Polym. Sci.: Part A: Polym. Chem*. **49**, 1235-1247(2011).

648. J. Voepel, U. Edlund, A.-C. Albertsson, V. Percec. "Hemicellulose-Based Multifunctional Macroinitiator for Single-Electron-Transfer Mediated Living Radical Polymerization." *Biomacromolecules* **12**, 253-259(2011).

649. M. Peterca, M.R. Imam, C-H. Ahn, V.S.K. Balagurusamy, D.A. Wilson, B.M. Rosen, V. Percec. "Transfer, Amplification, and Inversion of Helical Chirality Mediated by Concerted Interactions of C_3-Supramolecular Dendrimers." *J. Am. Chem. Soc*. **133**, 2311-2328(2011).

650. B.M. Rosen, K.W. Quasdorf, D.A. Wilson, N. Zhang, A.-M. Resmerita, N.K. Garg, V. Percec."Nickel-Catalyzed Cross-Coupling Involving Carbon-Oxygen Bonds." *Chem. Rev*. **111**, 1346-1416(2011).

651. B.M. Rosen, M. Peterca, K. Morimitsu, A.E. Dulcey, P. Leowanawat, A.-M. Resmerita, M.R. Imam, V. Percec. "Programming the Supramolecular Helical Polymerization of Dendritic Dipeptides *via* the Stereochemical Information of the Dipeptide." *J. Am. Chem. Soc*. **133**, 5135-5151(2011).

652. V. Percec, M. Peterca, T. Tadjev, X. Zeng, G. Ungar, P. Leowanawat, E. Aqad, M.R. Imam, B.M. Rosen, U. Akbey, R. Graf, S. Sekharan, D. Sebastiani, H.W. Spiess, P. A. Heiney, S.D. Hudson. "Self-Assembly of Dendronized Perylene Bisimides into Complex Helical Columns." *J. Am. Chem. Soc*. **133**, 12197-12219(2011).

653. N.H. Nguyen, V. Percec. "Disproportionating *vs* Nondisproportionating Solvent Effect in the SET-LRP of Methyl Acrylate During Catalysis with Nonactivated and Activated Cu(0) Wire." *J. Polym. Sci.: Part A: Polym. Chem*. **49,** 4227-4240 (2011).

654. N.H. Nguyen, V. Percec. "Acid Dissolution of Copper Oxides as a Method for the Activation of Cu(0) Wire Catalyst for SET-LRP." *J. Polym. Sci.: Part A: Polym. Chem*. **49**, 4241-4252 (2011).

655. N.H. Nguyen, V. Percec. "SET-LRP of Methyl Acrylate Catalyzed with Activated Cu(0) Wire in Methanol in the Presence of Air." *J. Polym. Sci.: Part A: Polym. Chem.* **49**, 4756-4765(2011).

656. P. Leowanawat, N. Zhang, A.-M. Resmerita, B.M. Rosen, V. Percec. "$Ni(COD)_2/PCy_3$ Catalyzed Cross-Coupling of Aryl and Heteroaryl Neopentylglycolboronates with Aryl and Heteroaryl Mesylates and Sulfamates in THF at Room Temperature." *J. Org. Chem.* 76, 9946-9955(2011).

657. V. Percec, S.D. Hudson, M. Peterca, P. Leowanawat, E. Aqad, R. Graf, H.W. Spiess, X. Zeng, G. Ungar, P.A. Heiney. "Self-Repairing Complex Helical Columns Generated via Kinetically Controlled Self-Assembly of Dendronized Perylene Bisimides." *J. Am. Chem. Soc.* **133**, 18479-18404(2011).

658. G. Ungar, V. Percec, X. Zeng, P. Leowanawat. "Liquid Quasicrystals." *Israel J. Chem.* **51**, 1206-1215(2011).

659. V. Percec, P. Leowanawat. "Why Are Biological Systems Homochiral?" *Israel J. Chem.* **51**, 1107-1117(2011).

660. M. Peterca, V. Percec, P. Leowanawat, A. Bertin. "Predicting the Size and Properties of Dendrimersomes from the Lamellar Structure of their Amphiphilic Janus Dendrimers." *J. Am. Chem. Soc.* **133**, 20507-20520(2011). *Spotlights:* C. Herman. "Method Takes the Guess Work Out of Dendrimer Vesicle Formation." *J. Am. Chem. Soc.* **134**, 2-2(2012).

661. N.H. Nguyen, M.E. Levere, V. Percec. "TREN *vs* Me_6-TREN as Ligands in SET-LRP of Methyl Acrylate." *J. Polym. Sci.: Part A: Polym. Chem.* **50**, 35-46(2012).

662. N.H. Nguyen, M.E. Levere, V. Percec. "SET-LRP of Methyl Acrylate to Complete Conversion with Zero Termination." *J. Polym. Sci.: Part A: Polym. Chem.* **50**, 860-873(2012).

663. P. Leowanawat, N. Zhang, V. Percec. "Nickel Catalyzed Cross-Coupling of Aryl C-O Based Electrophiles with Aryl Neopentylglycolboronates." *J. Org. Chem.* **77**, 1018-1025(2012).

664. V. Percec, M.R. Imam, M. Peterca, P. Leowanawat. "Self-Organizable Vesicular Columns Assembled from Polymers Dendronized with Semifluorinated Janus Dendrimers Act as Reverse Thermal Actuators." *J. Am. Chem. Soc.* **134**, 4408-4420(2012).

665. P. Leowanawat, N. Zhang, M. Safi, D.J. Hoffman, M.C. Fryberger, A. George, V. Percec. "*Trans*-Chloro(1-Naphthyl)bis(Triphenylphosphine)Nickel(II)/PCy_3 Catalyzed Cross-Coupling of Aryl and Heteroaryl Neopentylglycolboronates with Aryl and Heteroaryl Mesylates and Sulfamates at Room Temperature." *J. Org. Chem.* **77**,2885-2892(2012).

666. N.H. Nguyen, M.E. Levere, J. Kulis, M.J. Monteiro, V. Percec. "Analysis of the Cu(0)-Catalyzed Polymerization of Methyl Acrylate in Disproportionating and Non-Disproportionating Solvents." *Macromolecules* **45**, 4606-4622(2012).

667. M.A. Scherbina, A.V. Bakirov, A.N. Yakunin, V. Percec, U. Beginn, M. Moeller, S.N. Chvalun. "Self-Assembling Supramolecular Systems of Different Symmetry Formed by Wedged Macromolecular Dendrons." *Crystallography Reports* **57**, 151-168(2012).

668. N. Zhang, D.J. Hoffman, N. Gutsche, J. Gupta, V. Percec. "Comparison of Arylboron-Based Nucleophiles in Ni-Catalyzed Suzuki-Miyaura Cross-Coupling with Aryl Mesylates and Sulfamates." *J. Org. Chem.* **77**, 5956-5964(2012).

669. M.E. Levere, N.H. Nguyen, V. Percec. "No Reduction of $CuBr_2$ During the Cu(0)-Catalyzed Living Radical Polymerization of Methyl Acrylate in DMSO at at 25 ^oC." *Macromolecules*, **45**, 8267-8274(2012).

670. M.E. Levere, N.H. Nguyen, H.-J. Sun, V. Percec. "Interrupted SET-LRP of Methyl Acrylate Demonstrates Cu(0) Colloidal Particles as Activating Species." *Polym. Chem.* **4**, 686-694(2013).

671. N.H. Nguyen, J. Kulis, H.-J. Sun, Z. Jia, B. van Beusekom, M.E. Levere, D.A. Wilson, M.J. Monteiro, V. Percec. "A Comparative Study of SET-LRP of Oligo(ethylene oxide) Methyl Ether Acrylate in DMSO and in H_2O." *Polym. Chem.* **4,** 144-155(2013).

672. B.M. Rosen, C. Roche, V. Percec. "Self-Assembly of Dendritic Dipeptides as a Model of Chiral Selection in Primitive Biological Systems." *Top. Curr. Chem.* **333**, 213-254(2013). DOI: 10.1007/128-2012-398.

673. C. Roche, V. Percec. "Complex Adaptable Systems Based on Self-Assembling Dendrimers and Dendrons: Toward Dynamic Materials." *Israel J. Chem.* **53,** 30-44(2013).

674. M.E. Levere, N.H. Nguyen, X. Leng, V. Percec. "Visualization of the Crucial Step in SET-LRP." *Polym. Chem.* **4**, 1635-1647(2013).

675. N.H. Nguyen, H.-J. Sun, M.E. Levere, S. Fleischmann, V. Percec. "Where is Cu(0) Generated by Disproportionation During SET-LRP?" *Polym. Chem.* **4**, 1328-1332(2013).

676. X. Leng, N.H. Nguyen, B. van Beusekom, D.A. Wilson, V. Percec. "SET-LRP of 2-Hydroxyethyl Acrylate in Protic and Dipolar Aprotic Solvents." *Polym. Chem.* **4**, 2995-3004(2013). DOI: 10.1039/c3py00048f.

677. N.H. Nguyen, X. Leng, H.J. Sun, V. Percec. "SET-LRP of Oligo(ethylene oxide) Methyl Ether Methacrylate in the Absence and Presence of Air." *J. Polym. Sci.: Part A: Polym. Chem.* **51**, 3110-3122(2013). DOI: 10.1002/pola.26718.

678. V. Percec, H-J Sun, P. Leowanawat, M. Peterca, R. Graf, H.W. Spiess, Z. Zeng, G. Ungar, P.A. Heiney. "Transformation from Kinetically into Thermodynamically Controlled Self-Organization of Complex Helical Columns with 3D Periodicity Assembled from Dendronized Perylene Bisimides." *J. Am. Chem Soc.* **135**, 4129-4148(2013). DOI: 10.1021/ja400639q.

679. N.H. Nguyen, X. Leng, V. Percec. "Synthesis of Ultrahigh Molar Mass Poly(2-Hydroxyethyl Methacrylate) by Single-Electron Transfer Living Radical Polymerization." *Polym. Chem.* **4**, 2760-2766(2013). DOI: 10. 1039/c3py00224a.

680. N.H. Nguyen, C. Rodriguez-Emmenegger, E. Brynda, Z. Sedlakova, V. Percec. "SET-LRP of *N*-(2-Hydroxypropyl)Methacrylamide in H_2O." *Polym. Chem.* **4**, 144-155(2013). DOI: 10.1039/c3py00220a.

681. S.R. Samanta, M.E. Levere, V. Percec. "SET-LRP of Hydrophobic and Hydrophilic Acrylates in Trifluoroethanol." *Polym. Chem.* **4**, 3212-3224(2013). DOI: 10.1039/c3py00289f.

682. V. Percec, P. Leowanawat, H.-J. Sun, O. V. Kulikov, C. N. Nusbaum, T.M. Tran, A. Bertin, D.A. Wilson, M. Peterca, S. Zhang, N.P. Kamat, K. Vargo, D. Mook, E.D. Johnston, D.A. Hammer, D.J. Pochan, Y. Chen, Y.M. Chabre, T.C. Shiao, M. Bergeron-Brlek, S. André, R. Roy, H.-J. Gabius, P.A. Heiney. "Modular Synthesis of Amphiphilic Janus Glycodendrimers and Their Self-Assembly into Glycodendrimersomes and Other Complex Architectures with Bioactivity to Biomedically Relevant Lectins*." J. Am. Chem. Soc.* **135**, 9055-9077(2013). DOI: 10.1021/ja403323y. Published 21 May, 2013.

683. S. R. Samanta, A. Anastasaki, C. Waldron, D.M. Haddleton, V. Percec. "SET-LRP of Hydrophobic and Hydrophilic Acrylates in Tetrafluoropropanol." *Polym. Chem.* **4**, 5555-5562(2013). DOI: 10.1039/c3py00901g.

684. S. R. Samanta, A. Anastasaki, C. Waldron, D.M. Haddleton, V. Percec. "SET-LRP of Methacrylates in Fluorinated Alcohols." *Polym. Chem.* **4**, 5563-556(2013). DOI: 10.1039/c3py00902e.

685. V. Percec. "From Synthetic Macromolecules to Biological-Like Complex Systems." *Adv. Polym. Sci.* **261**, 173-197(2013).

686. S. R. Samanta, H. -J. Sun, A. Anastasaki, D. M. Haddleton, V. Percec. "Self-Activation and Activation of Cu(0) Wire for SET-LRP Mediated by Fluorinated Alcohols." *Polym. Chem.* **5**, 89-95(2014). DOI: 10.1039/c3pyo1007d.

687. S. R. Samanta, V. Percec. "Synthesis of High Molar Mass Poly(*N*-Butyl Acrylate) and Poly(2-Ethylhexyl Acrylate) by SET-LRP in Mixtures of Fluorinated Alcohols with DMSO." *Polym. Chem.* **5**, 169-174(2014). DOI: 10.1039/c3py01008b.

688. S. Zhang, H.-J. Sun, A. D. Hughes, B. Draghici, J. Lejnieks, P. Leowanawat, A. Bertin, L. De Leon, O. Kulikov, Y. Chen, D. J. Pochan, P. A. Heiney, V. Percec. "Single-Single" Amphiphilic Janus Dendrimers Self-Assemble into Uniform Dendrimersomes with Predictable Size." *ACS Nano.* **8**, 1554-1565(2014). DOI/10.1021/nn405790x (Published January 7, 2014).

689. A. Anastasaki, V. Nikolaou, Q. Zhang, J. Burns, S. R. Samanta, C. Wandron, A. J. Haddleton, R. McHale, D. Fox, V. Percec, P. Wilson, D. M. Haddleton. "Copper(II)/Tertiary Amine Synergy in Photo-Induced Living Radical Polymerization: Accelerated Synthesis of ω-Functional and ω,ω-Heterofunctional Poly(acrylates)." *J. Am. Chem. Soc.* **136**, 1141-1149(2014).

690. N. Zhang, S.R. Samanta, B.M. Rosen, V. Percec. "Single Electron Transfer in Radical Ion and Radical Mediated Organic, Materials and Polymer Synthesis." *Chem. Rev.* **114**, 5848-5958(2014). DOI/10.1021/cr400689s (2014).

691. S. Zhang, H.-J. Sun, A. D. Hughes, R.-O. Moussodia, A. Bertin, Y. Chen, D. J. Pochan, P. A. Heiney, M. L. Klein, V. Percec. "Self-Assembly of Amphiphilic Janus Dendrimers into Uniform Onion-Like Dendrimersomes with Predictable Size and Number of Internalized Bilayers." *Proc. Natl. Acad. Sci. USA*. **111**, 9058-9063(2014). Highlighted by S. Borman "Two Faced Dendrimers form Onionlike Vesicles." *Chem. & Eng. News*. **92**(25) June 23, p. 29 (2014).

692. S. Zhang, R-O. Mousodia, H.-J. Sun, P. Leowanawat, A. Muncan, C.D. Nusbaum, K. M. Chelling, M. L. Klein, A. André, R. Roy, H.-H. Gabius, V. Percec. "Mimicking Biological Membranes with Programmable Glycan Ligands Self-Assembled from Amphiphilic Janus Glycodendrimers." *Angew. Chem. Int. Ed.* **53**, 10899-10903(2014).

693. C. Roche, H.-J. Sun, M. E. Prendergast, P. Leowanawat, B. E. Partridge, P. A. Heiney, F. Araoka, R. Graf, H. W. Spiess, X. Zeng, G. Ungar, V. Percec. "Homochiral Columns Constructed by Chiral Self-Sorting During Supramolecular Helical Organization of Hat-Shaped Molecules." *J. Am. Chem. Soc.* **136**, 7169-7185(2014).

694. S. R. Samanta, C. Ruilong, V. Percec. "SET-LRP of Semifluorinated Acrylates and Methacrylates." *Polym. Chem*. **5**, 5479-5491(2014).

695. R. L. Jezorek, N. Zhang, P. Leowanawat, M. H. Bunner, N. Gutsche, A. K. R. Pesti, J. T. Olsen, V. Percec. "Air-Stable Precatalysts for Fast and Quantitative Cross-Coupling of Aryl Sulfamates with Arylneopentylglycolboronates at Room Temperature." *Org. Lett.* **16**, 6326-6329(2014). dx.doi.org/10.1021/ol503061c.

696. S. R. Samanta, C. Ruilong, V. Percec." Synthesis of Amphiphilic Homopolymers with High Chain End Functionality by SET-LRP." *J. Polym. Sci.: Part A: Polym. Chem*. **53**, 294-303(2015).

697. H.-J. Sun, S. Zhang and V. Percec. "From Structure to Functions *via* Complex Supramolecular Dendrimer Systems." Invited Tutorial Review. *Chem. Soc. Rev*. 44, 3900-3923(2015). DOI: 10.1039/c4cs00249k.

698. Y.-C. Wu, P. Leowanawat, H.-J. Sun, B. E. Partridge, M. Peterca, R. Graf, H. W. Spiess, X. Zeng, G. Ungar, C.S. Hsu, P. A. Heiney, V. Percec. "Complex Columnar Hexagonal Polymorphism in Supramolecular Assemblies of a Semifluorinated Electron-Accepting Naphthalene Bisimide." *J. Am. Chem. Soc.* **137**, 807-819(2015). DOI: 10.1021/ja540643b.

699. S. Zhang, R.-O. Mousodia, C. Murzeau, H.-J. Sun, M. L. Klein, S. Vértesy, S. André, R. Roy, H.-J. Gabius, V. Percec. "Dissecting Molecular Aspects of Cell Interractions Using Glycodendrimersomes with Programmable Glycan Presentation and Engineered Human Lectins." *Angew. Chem. Int. Ed.* **54**, 4036-4040(2015).

700. R. Zhang, X. Zeng, B. Kim, R. J. Bushby, K. Shin, P. J. Baker, V. Percec, P. Leowanawat, G. Ungar. "Columnar Liquid Crystals with Cylindrical Nano-Confinement." *ACSNano* **9**,1759-1766(2015). DOI: 10.1021/nn506605p.

701. S. R. Samanta, V. Nikolaou, S. Keller, M. J. Monteiro, D. A. Wilson, D. M. Haddleton, V. Percec."Aqueous SET-LRP Catalyzed with "*In Situ*" Generated Cu(0) Demonstrates Surface Mediated Activation and Bimolecular Termination." *Polym. Chem.* **6**, 2084-2097(2015). DOI: 10.1039/c4py01748j.

702. S. R. Samanta, R. Cai, V. Percec. "A Rational Approach to Activated Polyacrylates and Polymethacrylates by Using a Combination of Model Reactions and SET-LRP of Hexafluoroisopropyl Acrylate and Methacrylate." *Polym. Chem.* 6, 3259-3270(2015). DOI:10.1039/C5py00082C.

703. S. Guerra, J. Iehl, M. Holler, M. Peterca, D.A. Wilson, B.E. Partridge, S. Zhang, R. Deschenaux, J.-F. Nierengarten, V. Percec." Self-Organization of Dodeca-Dendronized Fullerene into Supramolecular Discs and Helical Columns Containing a Nanowire Core." *Chem. Sci.* **6**, 3393-3401(2015). DOI: 10.1039/c5sc00449g.

704. B. E. Partridge, P. Leowanawat, E. Aqad, M. R. Imam, H.-J. Sun, M. Peterca, P. A. Heiney, R. Graf, H. W. Spiess, X. Zeng, G. Ungar, V. Percec. "Increasing 3D Supramolecular Order by Decreasing Molecular Order. A Comparative Study of Helical Assemblies of Dendronized Non-Chlorinated and Tetrachlorinated Perylene Bisimides." *J. Am. Chem. Soc.* **137**, 5210-5224(2015). DOI: 10.1021/jacs.5b02147. Spotlight by C. Herman *J. Am. Chem. Soc*. **137**, 4875-4875(2015).

705. S. Zhang, R.-O. Mousodia, S. Vértesy, S. André, M. L. Klein, H.-J. Gabius, V. Percec. "Unraveling Functional Significance of Natural Variations of a Human Galectin by Glycodendrimersomes with Programmable Glycan Surface." *Proc. Natl. Acad. Sci. USA*, **112**, 5585-5590(2015). DOI: 10.1073/pnas. 1506220112.

706. M. Vorobii, A. De Los Santos Pereira, O. Pop-Georgievski, N. Y. Kostina, C. Rodriguez-Emmenegger, V. Percec. "Synthesis of Non-Fouling Poly[N-(2-hydroxypropyl)methacrylamide] Bruses by Photoinduced SET-LRP." *Polym. Chem.* **6**, 4210-4220(2015). DOI: 10.1039/C2PY90049A.

707. O. V. Kulikov, D. A. Siriwardane, J. F. Reuther, G. T. McCandless, H.-J. Sun, Y. Li, S. F. Mahmood, S. S. Sheiko, V. Percec, B. M. Novak. "Characterization of Fibrous Aggregated Morphologies and Other Complex Architectures Self-Assembled from Helical Alkyne and Triazole Polycarbodiimides (R)- and (S)-Families in the Bulk and Thin Film." *Macromolecules* **48**, 4088-4103(2015).

708. S. Zhang, Q. Xiao, S. E. Sherman, A. Muncan, A. D. M. Ramos Vicente, Z. Wang, D. A. Hammer, D. Williams, Y. Chen, D. J. Pochan, S. Vértesy, S. André, M. L. Klein, H.-J. Gabius, V. Percec. "Glycodendrimersomes from Sequence-Defined Janus Glycodendrimers Reveal High Activity and Sensor Capacity for the Agglutination of Natural Variants of Human Lectins." *J. Am. Chem. Soc.* **137**, 13334-13344(2015). DOI: 10.1021/jacs. 5b 08844. Spotlight: "Clarifying Sugar-Receptor Binding." by R. Mukhopadhyay *J. Am. Chem. Soc.* **137**, 13211-13211(2015). DOI: 10.1021/jacs 5b10594.

709. C. Roche, H.-J. Sun, P. Leowanawat, F. Araoka, B. E. Partridge, M. Peterca, D. A. Wilson, M. E. Prendergast, P. A. Heiney, R. Graf, H. W. Spiess, X. Zeng, G. Ungar, V. Percec." "A Supramolecular Helix that Disregards Chirality." *Nat. Chem.* **8**, 80-89(2016). DOI: 10.1038/NCHEM.2397. Highlighted by S. Borman "How Researchers Formed A Pure, Chiral Crystal From Mixed Ingredients." in *Chem. & Eng. News* **93(48)**, p.9-9 (2015).

710. Q. Xiao, S. Zhang, Z. Wang, S. E. Sherman, R.-O. Mousodia, M. Peterca, A. Muncan, D. Williams, D. A. Hammer, S. Vértesy, S. André, H.-J. Gabius, M. L. Klein, V. Percec. "Onion-Like Glycodendrimersomes from Sequence-Defined Janus Glycodendrimers and Influence of Architecture on Reactivity of a Lectin." *Proc. Natl. Acad. Sci. USA.* **113**, 1162-1167(2016). DOI: 10.1073/pnas.1524976113.

711. M. Gavrilov, T. J. Zerk, P. V. Benhardt, V. Percec, M. J. Monteiro. "SET-LRP of NIPAM in Water via In Situ Reduction of Cu(II) to Cu(0) with $NaBH_4$." *Polym. Chem.* **7**, 406-417(2016). DOI: 10.1039/C5PY01855B.

712. V. Percec. "Introduction to Frontiers in Macromolecular Science. Part 1." *Chem. Rev.* **116**, 769-760(2016). DOI: 10.1021/acs.chemrev.6b00058.

713. V. Percec. "Introduction to Frontiers in Macromolecular Science. Part 2." *Chem. Rev.* **116**, 1671-1672(2016). DOI: 10.1021/acs.chemrev.6b00069.

714. Q. Xiao, S. S. Yadavalli, S. Zhang, S. E. Sherman, E. Fiorin, L. da Silva, D. A. Wilson, D. A. Hammer, S. André, H.-J. Gabius, M. L. Klein, M. Goulian, V. Percec. "Bioactive Cell-Like Hybrids Co-Assembled from (Glyco)Dendrimersomes with Bacterial Membranes." *Proc. Natl. Acad. Sci. USA.* **113**, E1134-E1141(2016). DOI: 10.1073/pnas.1525589113.

715. M. Enayati, R.L. Jezorek, M. J. Monteiro, V. Percec. "Ultrafast SET-LRP of Hydrophobic Acrylates in Multiphase Alcohol-Water Mixtures." *Polym. Chem.* **7**, 3608-3621 (2016). DOI: 10.1039/C6PY00353B.

716. J. Mallineni, R. L. Jezorek, N. Zhang, V. Percec. "An Indefinitely Air-Stable Sigma-Ni^{II} Precatalyst for Quantitative Cross-Coupling of Unreactive Aryl halides and Mesylates with Aryl Neopentylglycolboronates." *Synthesis*. **48**, 2795-2807 (2016). DOI: 10.1055/s-0035-1562342.

717. J. Mallineni, R. L. Jezorek, N. Zhang, V. Percec. "$Ni^{II}Cl$(1-Naphthyl)$(PCy_3)_2$ an Air-Stable Sigma-Ni^{II} Precatalyst for Quantitative Cross-Coupling of Aryl C-O Electrophiles with Aryl Neopentylglycolboronates." *Synthesis*, **48**, 2808-2815 (2016). DOI: 10.1055/s-0035-1562343.

718. M. Enayati, R. L. Jezorek, V. Percec. "A Multiple-Stage Activation of the Catalytically Inhomogeneous Cu(0) Wire Used in SET-LRP." *Polym. Chem*. **7**, 4549-4558(2016).

719. M. Gavrilov, Z. Jia, V. Percec, M. J. Monteiro. "Quantitative End-Group Functionalization of PNIPAM from Aqueous SET-LRP *via* In Situ Reduction of Cu(II) with $NABH_4$." *Polym. Chem*. **7**, 4802-4809(2016). Selected by Dr. Athina Anastasaki as the Paper of the Month of *Polymer Chemistry*: http://blogs.rsc.org/py/2016/08/30/paper-of-the-month-quantitative-end-group-functionalization-of-pnipam-from-aqueous-set-lrp-via-in-situ-reduction-of-cuii-with-nabh4/

720. M. Enayati, R. L. Jezorek, R. B. Smail, M. J. Monteiro, V. Percec. "Ultrafast SET-LRP in Biphasic Mixtures of the Non-Disproportionating Solvent Acetonitrile with Water." *Polym. Chem*. **7**, 5930-5942(2016). DOI: 10.1039/c6py01307d.

721. Q. Xiao, J. D. Rubien, Z. Wang, E. H. Reed, D. A. Hammer, D. Sahoo, P. A. Heiney, S. S. Yadavalli, M. Goulian, S. E. Wilner, T. Baumgart, S. A. Vinogradov, M. L. Klein, V. Percec. "Self-Sorting and Coassembly of Fluorinated, Hydrogenated and Hybrid Janus Dendrimers into Dendrimersomes." *J. Am. Chem. Soc.* **138**, 12655-12663(2016). DOI: 10.1021/jacs.6b08069.

722. Q. Xiao, Z. Wang, D. Williams, P. Leowanawat, M. Peterca, S. E. Sherman, S. Zhang, D. A. Hammer, P. A. Heiney, S. R. King, D. M. Markovitz, S. Andre, H.-J. Gabius, M. L. Klein, V. Percec. "Why Do Membranes of Some Unhealthy Cells Adopt

a Cubic Architecture?" *ACS Cent. Sci.* (2016). DOI: 10.1021/acscentsci.6b00284. Highlighted by Alison Sundermier on Penn News and in other news media: https://news.upenn.edu/news/penn-researchers-show-cubic-membranes-might-provide-defense-sick-cells.

723. M.-S. Ho, B. E. Partridge, H.-J. Sun, D. Sahoo, P. Leowanawat, M. Peterca, R. Graf, H. W. Spiess, X. Zeng, G. Ungar, P.A. Heiney, C.-S. Hsu, V. Percec. "Screening Libraries of Semifluorinated Arylene Bisimides to Discover and Predict Thermodynamically Controlled Helical Crystallization." *ACS Comb. Sci.* **18**, 723-739(2016). DOI: 10.1021/acscombsci.6b00143. Front Cover of the Issue.

724. M. Peterca, M. R. Imam, S. D. Hudson, B. E. Partridge, D. Sahoo, P. A. Heiney, M. L. Klein, V. Percec. "Complex Arrangement of Orthogonal Nanoscale Columns *via* a Supramolecular Orientational Memory Effect." *ACS Nano*, **10**, 10410-10488(2016). DOI: 10.1021/acsnano.6b06419.

725. D. Sahoo, M. Peterca, E. Aqad, B. E. Partridge, P. A. Heiney, R. Graf, H. W. Spiess, X. Zeng, V. Percec. "Hierarchical Self-Organization of Perylene Bisimides into Supramolecular Spheres and Periodic Arrays Thereof." *J. Am. Chem. Soc.* **138**, 14798-14807(2016). DOI: 10.1021/jacs.6b09986.

726. M. Vorobii, O. Pop-Georgievski, A. de los Santos Pereira, N. Yu. Kostina, Ryan Jezorek, Z. Sedlakova, V. Percec, C.-Rodriguez-Emmenegger. "Grafting of Functional Methacrylate Polymer Brushes by Photoinduced SET-LRP." *Polym. Chem.* **7**, 6934-6945(2016). DOI: 10.1039/c6py01730d.

727. M. Enayati, R. B. Smail, S. Grama, R. L. Jezorek, M. L. Monteiro, V. Percec. "The Synergistic Effect During Biphasic SET-LRP in Ethanol-Nonpolar Solvent-Water Mixtures." *Polym. Chem.* **7**, 7230-7241(2016). DOI: 10.1039/c6py01815g.

728. M. N. Holerca, D. Sahoo, M. Peterca, B. E. Partridge, P. A. Heiney, V. Percec. "A Tetragonal Phase Self-Organized from Unimolecular Spheres Assembled from a Substituted Poly(2-oxazoline)." *Macromolecules*, **50**, 375-385(2017). DOI: 10.1021/acs.macromol.6b02298.

729. D. Sahoo, M. Peterca, E. Aqad, B. E. Partridge, P. A. Heiney, R. Graf, H. W. Spiess, X. Zeng, V. Percec. "Memory Effect During Self-Assembly of a Dendronized Perylene Bisimide into Supramolecular Spheres and Columns." *ACS Nano*. **11**, 983-991(2017). DOI: 10.102/acsnano.6b07599.

730. D. Jiskariani, C. M. McDermaid, Y. N. Timsina, S. Grama, S. S. Gillani, M. Divar, S. S. Yadavalli, R.O. Moussodia, P. Leowanawart, A. M. Berrios Camacho, R. Walter, M. Goulian, M. L. Klein, V. Percec. "Self-Interrupted Synthesis of Sterically Hindered Aliphatic Polyamide Dendrimers." *Proc. Natl. Acad. Sci. U.S.A.*, E2275-E2284(2017). Highlighted by Alison Sundermier on Penn News and in other news media: https://news.upenn.edu/news/penn-researchers-push-limits-organic-synthesis.

731. G. Lligadas, D. Grama, V. Percec. "Recent Developments in the Synthesis of Biomacromolecules and their Conjugates by SET-LRP." *Biomacromolecules* **18**, 1039-1063(2017). DOI: 10.1021/acs.biomac.7b00197 (2017). Selected as ACS Editors Choice and Front Cover of the issue No. 4.

732. S. E. Sherman, Q. Xiao, V. Percec. "Mimicking Complex Biological Membranes and their Programmable Glycan Ligands with Dendrimersomes and Glycodendrimersomes." *Chem. Rev*. **117**, 6538-6631(2017). DOI: 10.1021/acs.chemrev.7b00097.

733. R. B. Smail, R. L. Jezorek, J. E. Lejnieks, M. Enayati, S. Grama, M. J. Monteiro, V. Percec. "Biphasic Acetone-Water Mixtures as Solvents for Ultrafast SET-LRP of Hydrophobic Acrylates." *Polym. Chem*. **8**, 3102-3123(2017). DOI: 10.1039/C7PY00557A.

734. R. J. Jezorek, M. Enayati, R. B. Smail, J. E. Lejnieks, S. Grama, M. J. Monteiro, V. Percec. "The Stirring Rate Provides Dramatic Acceleration of the Ultrafast Interfacial SET-LRP in Biphasic Organic Solvent-Water Mixtures." *Polym. Chem*. **8**, 3405-3424(2017). Front Cover. DOI: 10.1039/C7PY00659D.

735. Q. Xiao, S. E, Sherman, S. E. Wilner, X. Zhou, C. Dazen, T. Baumgart, E.H. Reed, D.A. Hammer, M.L. Klein, V. Percec. "Janus Dendrimersomes Coassembled from Fluorinated, Hydrogenated and Hybris Janus Dendrimers as Models for Fusion and Fission of Biological Cells." *Proc. Natl. Acad. Sci. U.S.A*. **114**, E7045-E7053(2017). DOI:10.1073/pnas.1708380114.

736. G. Lligadas, M. Enayati, S. Grama, R. Smail, S. E. Sherman, V. Percec. "Ultrafast SET-LRP with Peptoid Cytostatic Drugs as Monofunctional and Bifunctional Initiators." *Biomacromolecules*, **18**, 2610-2622(2017). DOI: 10.1021/acs.biomac.7b00722.

737. B. E. Partridge, D. Sahoo, M. R. Imam, M. Peterca, P. A. Heiney, R. Graf, H. W. Spiess, X. Zeng, M. L. Klein, V. Percec. "Programming Tetragonal and Orthogonal Orientational Memory Arrangements Templated by A15 Phase *via* the Primary Structure of Self-Assembling Dendrimers." *ACS Nano*, Under Revision.

738. A.K. Andreopoulou, M. Peterca, D.A. Wilson, B.E. Partridge, P.A. Heiney, V. Percec. "Nanomechanical Function Mediated by the 8_1 Helicity of Self-Organizable Dendronized Polymethacrylates and Polyacrylates." *Macromolecules* **50**, 5271-5284(2017). DOI: 10.1021/acs.macromol.7b01216.

739. S. Grama, J. E. Lejnieks, M. Enayati, R. B. Smail, L. Ding, M. J. Monteiro, V. Percec. "Searching for Efficient SET-LRP Systems *via* Biphasic Mixtures of Water with Carbonates, Ethers and Dipolar Aprotic Solvents." *Polym. Chem.* **8**, 5865-5874(2017). DOI: 10.1039/c7py01349c.

740. A. Moreno, D. Garcia, M. Galia, J.C. Ronda, V. Cadiz, G. Lligadas, V. Percec. "SET-LRP in the Neoteric Ethyl Lactate Alcohol." *Biomacromolecules* **18**, 3347-3456(2017) DOI: 10.1021/acs. biomac.7b01130.

741. G. Lligadas, S. Grama, V. Percec. "SET-LRP Platform to Practice, Develop and Invent." *Biomacromolecules* **18**, 2981-3008(2017). DOI: 10.1021/acs.biomac.7b01131. Invited Perspective.

742. J. Kopitz, Q. Xiao, A.-K. Ludwig, A. Romero, M. Michalak, S.E. Sherman, X. Zhou, C. Dazen, S. Vertesy, H. Kaltner, M.L. Klein, H.-J. Gabius, V. Percec. "Programmable Glycan-Presentation of Glycodendrimersomes and Cells React with Engineered Human Lectins to Unveil Cell-Surface Sugar Functionality." *Angew. Chem. Int. Ed*. **56**, 14677-14681(2017). DOI: 10.1002/anie.201708237. Hot Paper.

743. A. Moreno, S. Grama, T. Liu, M. Galia, G. Lligadas, V. Percec. "SET-LRP Mediated by TREN in Biphasic Water-Organic Solvent Mixtures Provides the Most Economical and Efficient Process." *Polym. Chem*. **8**, 7559-7574(2017). DOI: 10.1039/C7PY01841J

744. Q. Xiao, A.-K. Ludwig, C. Romano, I. Buzzacchera, S.E. Sherman, M. Vetro, S. Vertesy, H. Kaltner, E. H. Reed. M. Moeller, C.J. Wilson, D.A. Hammer, S. Oscarson, M.L. Klein, H.-J. Gabius, V. Percec. "Exploring Functional Pairing Between Surface Glycoconjugates and Human Galectins using Programmable Glycodendrimersomes." *Proc. Natl. Acad. Sci. U.S.A.* **115**, E2509-E2518(2018). 2018, DOI:10.1073/pnas.17200955115. Commentary by Kamil Godula "Following Sugar Patterns in Search of Galectin Function" *Proc. Natl. Acad. Sci.* **115**, 2548-2550(2018). 2018, DOI: 10.1073/pnas.1801039115.

745. M. L. Klein, V. Percec. "Frontiers of Macromolecular and Supramolecular Science." *Polym. Chem*. 2018, **9**, 2355-2358. DOI: 10.1039/c8py90063a.

746. A. Moreno, T. Liu, L. Ding, I. Buzzacchera, M. Galia, M. Moeller, C. J. Wilson, G. Lligadas, V. Percec. "SET-LRP in Biphasic Mixtures of Fluorinated Alcohols with Water." *Polym. Chem.* **9**, 2313-2327(2018). 2018, DOI: 10.1039/C8PY00062J.

747. N. Bensabeh, J. C. Ronda, M. Galia, V. Cadiz, G. Lligadas, V. Percec. "SET-LRP of the Hydrophobic Biobased Menthyl Acrylate." *Biomacromolecules*, **19**, 1256-1268(2018). DOI: 10.1021/acs.biomac.8b00090.

748. A. Moreno, R. L. Jezorek, T. Liu, M. Galia, G. Lligadas, V. Percec. "Macromonomers, Telechelics and More Complex Architectures of PMA by a Combination of Biphasic SET-LRP and Biphasic Esterification." *Polym. Chem*. 9, 1885-1899(2018). DOI: 10.1039/c8py00150b.

749. A. Moreno, T. Liu, M. Galia, G. Lligadas, V. Percec. "Acrylate-Macromonomers and Telechelics of PBA by Merging Biphasic SET-LRP of BA, Chain Extension with MA and Biphasic Esterification." *Polym. Chem*. **9**, 1961-1971(2018). DOI: 10.1039/C8py00156a.

750. A. Moreno, J. Lejnieks, L. Ding S. Grama, M. Galia, G. Lligadas, V. Percec. "Highly Reactive α-Bromoacrylate Monomers and Michael Acceptors by Cu(II)Br_2-Dibromination of Acrylates and Instantaneous E2 by Ligand." *Polym. Chem*. 9, 2082-2086(2018). DOI: 10.1039/C8PY00155C.

751. D. Sahoo, M. Peterca, E. Aqad, B. E. Partridge, M. L. Klein, V. Percec. "Losing Supramolecular Orientational Memory *via* Self-Organization of a Misfolded Secondary Structure." *Polym. Chem*. **9**, 2370-2381(2018). DOI: 10.1039/c8py00187a.

752. S. Wilner, Q. Xiao, Z. Graber, S. Sherman, V. Percec, T. Baumgart, "Dendrimersomes Exhibit Lamellar-to Sponge Phase Transitions." *Langmuir*, 2018, DOI: 10.1021/acs.langmuir.8b00275.

753. S. S. Yadavalli, Q. Xiao, S. E. Sherman, M. L. Klein, M. Goulian, V. Percec. "Bioactive Cell-Like Hybrids from Dendrimersomes and Human Cell Membranes." *ACS Nano*, Submitted.

754. D. Sahoo, M. Peterca, M. R. Iman, P. A. Heiney, R. Graf, H. W. Spiess, X. Zeng, V. Percec. "Self-Organization of Chiral Supramolecular Spheres into Columnar Assemblies." To be submitted.

755. D. Sahoo, D. A. Wilson, B. M. Rosen, M. Peterca, B. E. Partridge, P. A. Heiney, V. Percec. "Self-Organization of Conical Dendrons into Giant Chiral Spheres." To be Submitted.

Books and Special Issues

1. V. Percec and D. A. Tirrell, Eds. "International Symposium on New Polymerization Reactions and Reaction Mechanisms." *Makromol. Chem. Macromol. Symp.* **54/55**, Hüthig & Wepf: Basel, pp. 1-598 (1992).

2. V. Percec and D. A. Tirrell, Eds. "International Symposium on New Macromolecular Architectures and Supramolecular Polymers." *Macromol. Symp.* **77**, Hüthig & Wepf: Basel, Heidelberg and Oxford, Connecticut, pp. 1-421 (1994).

3. V. Percec and Y. Imanishi, Eds. "Macromolecular Design for Advanced Materials." Proceedings of the US-Japan Symposium on Polymer Synthesis, November 6-12, 1993, Santa Rosa, California, *J. Macromol. Sci. Pure Appl. Chem.* **A31(11)**, Marcel Dekker: New York, pp. 1491-1902 (1994).

4. V. Percec and J. Lando, Eds. "Polymers: Materials for the 21st Century." Macro Akron '94 35th IUPAC International Symposium on Macromolecules, *Macromol. Symp.* **98**, Hüthig & Wepf: Heidelberg and Oxford, Connecticut, pp. 1-1372 (1995).

5. V. Percec, Ed. "A Special Issue in honor of Professor Cristofer I. Simionescu." *J. Macromol. Sci. Pure Appl. Chem.* **A32(8 & 9)**, Marcel Dekker: New York, pp. 1381-1680 (1995).

6. V. Percec, Ed. "Liquid Crystalline Polymers, Part 1," *Progr. Polym. Sci.* **21(5)**, Pergamon: Oxford, pp. 775-1033 (1996).

7. V. Percec, Ed. "Liquid Crystalline Polymers, Part 2," *Progr. Polym. Sci.* **21(6)**, Pergamon: Oxford, pp. 1035-1236 (1996).

8. V. Percec, Ed. "Liquid Crystalline Polymers, Part 3," *Progr. Polym. Sci.* **22(4)**, Pergamon: Oxford, pp. 601-872 (1997).

9. V. Percec, Ed. "Liquid Crystalline Polymers, Part 4," *Progr. Polym. Sci.* **22(5)**, Pergamon: Oxford, pp. 873-1146 (1997).

10. V. Percec (Guest Editor), "Frontiers in Polymer Chemistry." *Chem. Rev.* **101(12)** American Chemical Society: Washington DC, pp. 3579-4192 (2001).

11. V. Percec (Guest Editor), "Frontiers in Polymer Synthesis." *Chem. Rev.* **109(11)** American Chemical Society: Washington DC, pp. 4961-6540 (2009).

12. V. Percec (Editor), "*Chemistry of Discotic Liquid Crystals. From Monomers to Polymers*." By S. Kumar, CRC Press, Boca Raton, New York, 2011.

13. V. Percec (Editor), "*Cross-Linked Liquid Crystalline Systems. From Rigid Polymer Networks to Elastomers*." D.J. Broer, G.P. Crawford, S. Zumer Eds, CRC Press, Boca Raton, New York, 2011.

14. V. Percec (editor), "DNA Liquid –Crystalline Dispersions and Nanoconstructions." Y.M. Yevdokimov, V.I. Salyanov, V.S. Semenov, S.G. Skuridin, CRC Press, Boca Raton, New York, 2011

15. V. Percec (Guest Editor), "Origins, Transfer and Amplification of Chirality." *Israel J. Chem*. **51** (**10**), 985-1127(2011).

16. V. Percec (Guest Editor). "Hierarchical Macromolecular Structures: 60 Years after the Staudinger Nobel Prize. I." *Adv. Polym. Sci*. **261**, 1-421(2013).

17. V. Percec (Guest Editor). "Hierarchical Macromolecular Structures: 60 Years after the Staudinger Nobel Prize. II." *Adv. Polym. Sci*. **262**, 1-452(2013).

18. V. Percec (Guest Editor). "Frontiers in Supramolecular and Macromolecular Chemistry-Part 1." *Chem. Rev*. **116(3)**, 769-1670 (2016).

19. V. Percec (Guest Editor). "Frontiers in Supramolecular and Macromolecular Chemistry-Part 2." *Chem. Rev*. **116(4)**, 1671-2774 (2016).