

Fortessa 4-15 HTS Voltages and Brightness Index

- Mouse spleen cells were stained with 0.1 µg anti-CD4 (clone GK1.5) and run on the 4-15 HTS at nine different voltages to compare the staining indexes between fluorophores

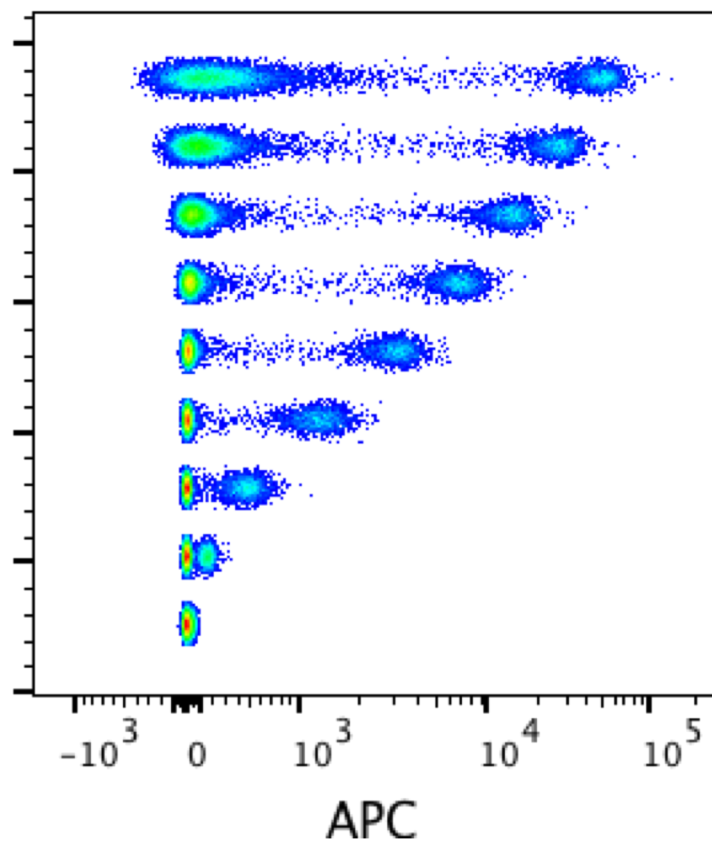
Recommended Voltages and Brightness

- These recommended voltages are a good starting point. If your single stain control is too bright, the voltage should be lowered. In general, increasing the voltage above the recommended settings has no benefit.

Laser	Filter	Fluorophore tested	Starting voltage
405	450/50	BV421	499
405	450/50	Pacific Blue	499
405	525/50	BV510	600
405	610/20	BV605	600
405	670/25	BV650	672
405	710/50	BV711	576
488	525/50	AF488	600
488	695/40	PerCP-Cy5.5	650
561	582/15	PE	539
561	610/20	PE-Dazzle595	630
561	670/30	PE-Cy5	650
561	710/50	PE-Cy5.5	541
561	780/60	PE-Cy7	564
640	660/20	APC	576
640	730/45	AF700	600
640	780/60	APC-Cy7	508

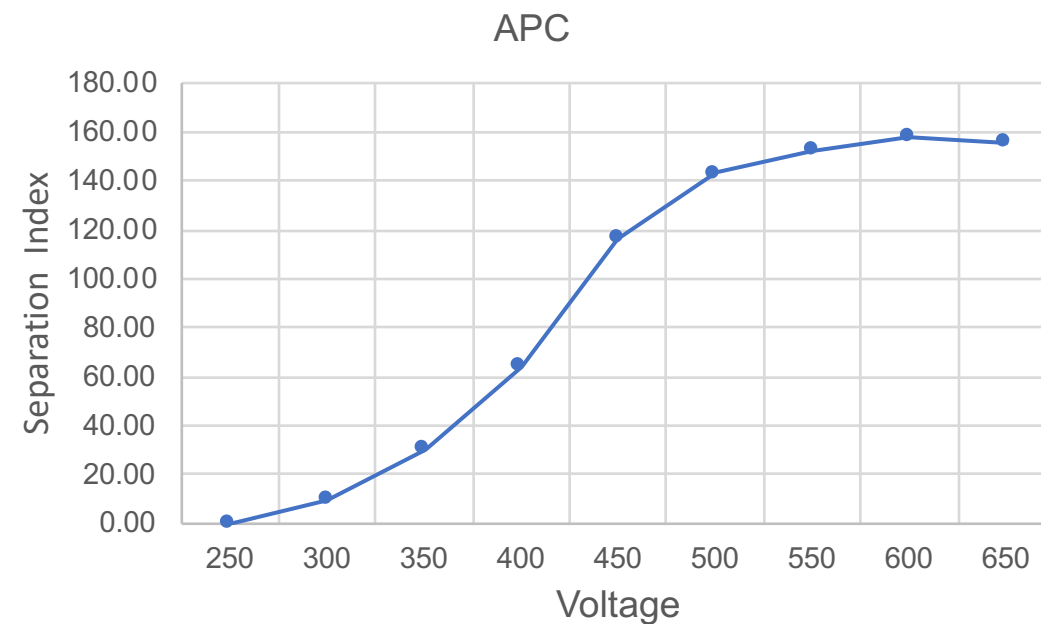
Fluorophore tested	Separation Index	Brightness Estimation
PE	182	Bright
PE-Dazzle595	172	Bright
APC	155	Bright
BV421	133	Moderate
BV711	130	Moderate
PE-Cy7	123	Moderate
BV605	105	Moderate
PerCP-Cy5.5	83	Dim
AF488	61	Dim
AF700	55	Dim
APC-Cy7	54	Dim
BV510	52	Dim
Pacific Blue	36	Very Dim
BV650	not tested	
PE-Cy5	not tested	
PE-Cy5.5	not tested	

APC



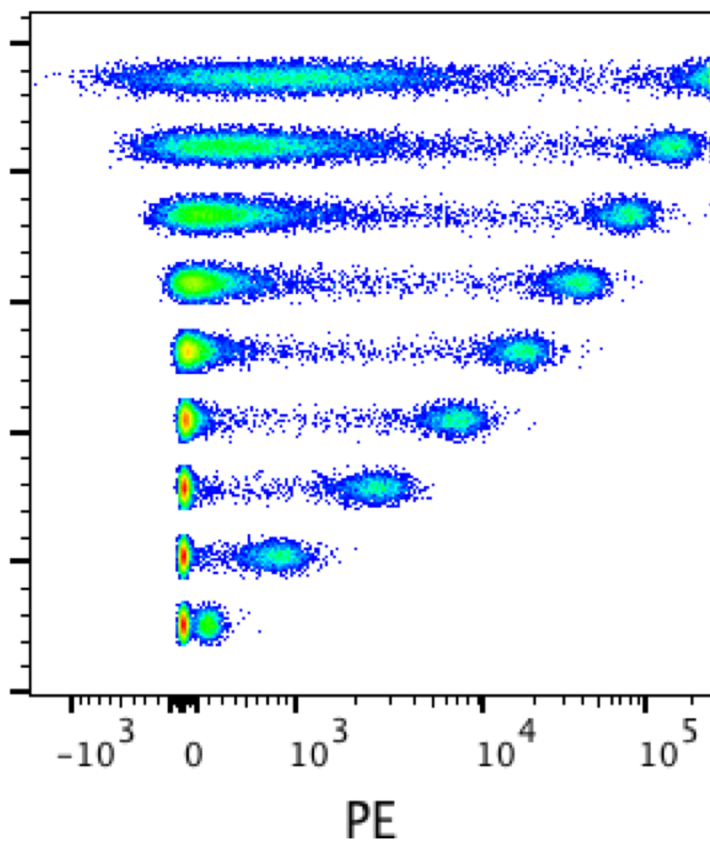
Red (640nm)

Voltage	SI
650	155.553915
600	157.910881
550	152.513692
500	143.517116
450	116.539375
400	64.2046364
350	30.5030091
300	10.0792208
250	0



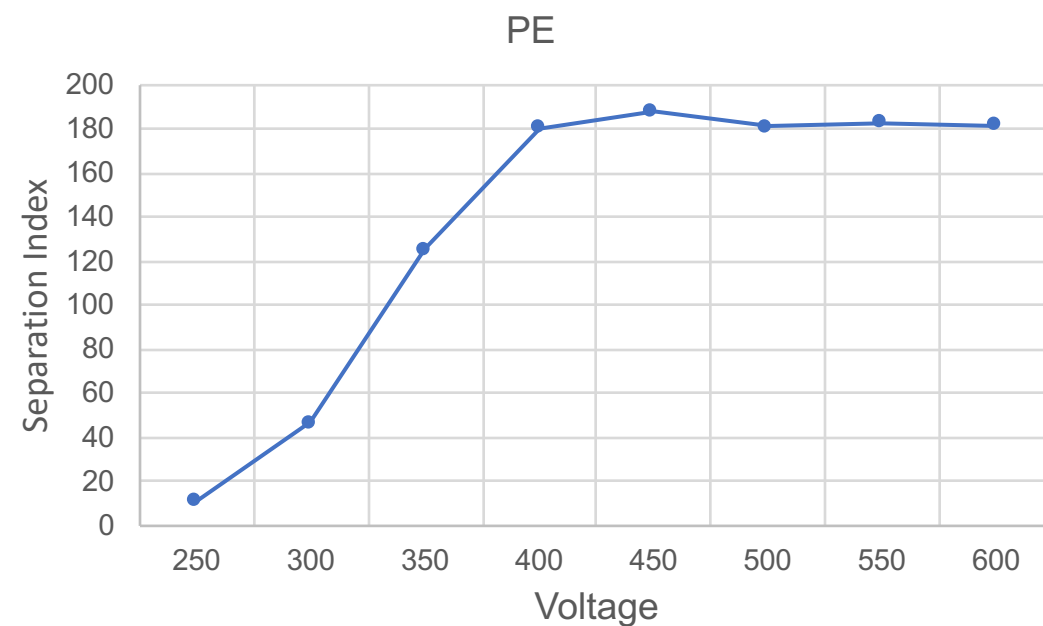
Bright

PE



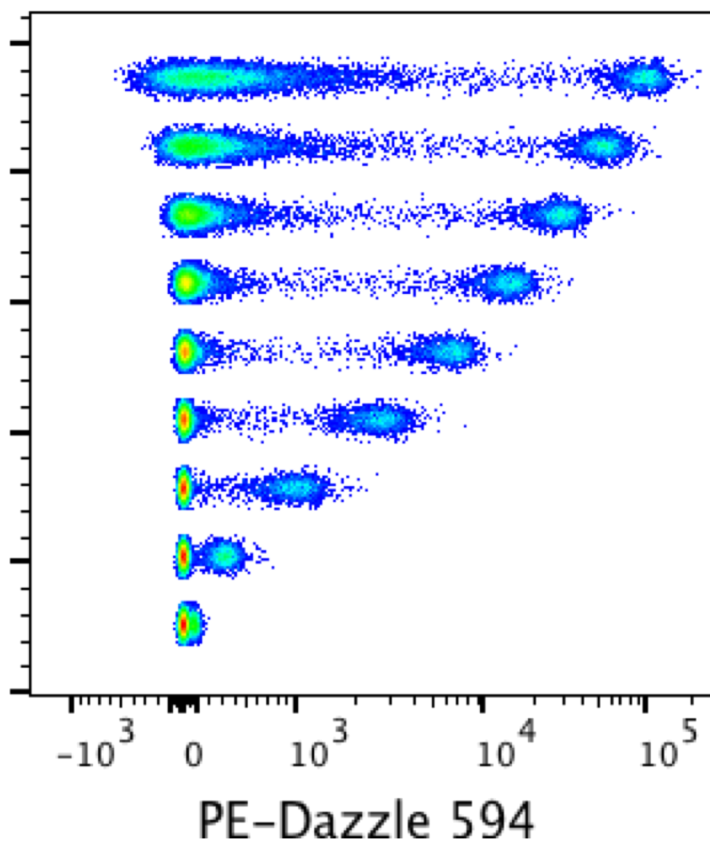
Yellow/Green (561nm)

Voltage	SI
650	174.591916
600	181.811605
550	182.7875
500	181.084871
450	188.106995
400	180.716875
350	125.756658
300	47.0695069
250	11.3799401



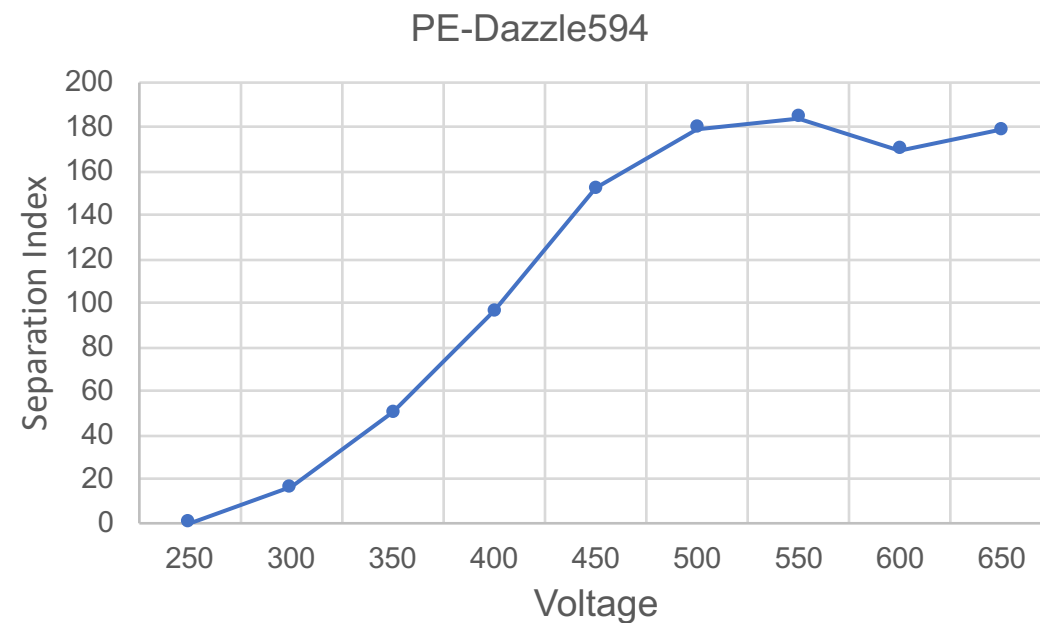
Very Bright

PE-Dazzle594



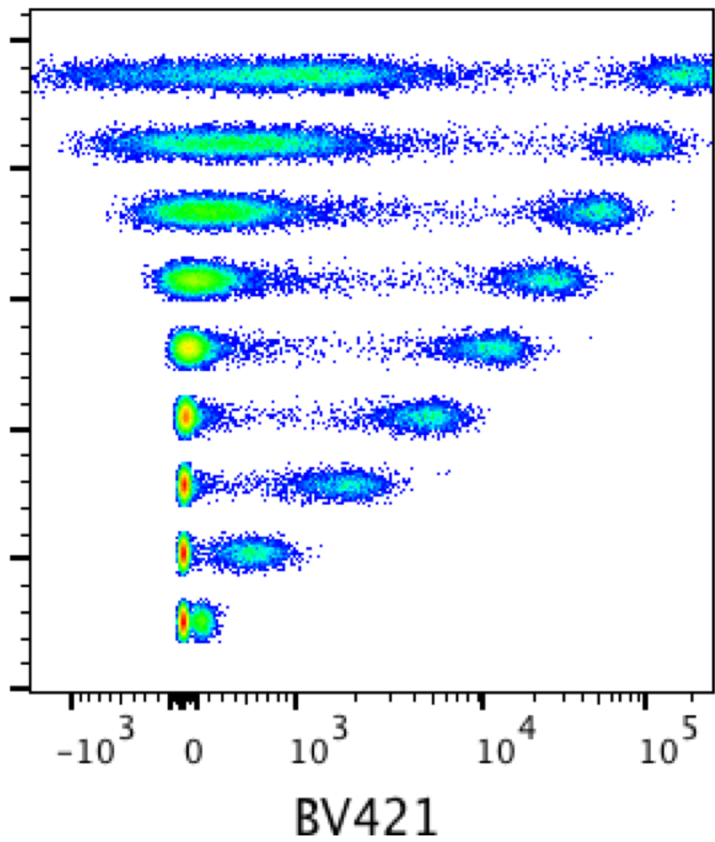
Yellow/Green (561nm)

Voltage	SI
650	178.243881
600	169.497093
550	183.656265
500	179.371612
450	151.615
400	96.2981907
350	49.9533463
300	16.5489637
250	0



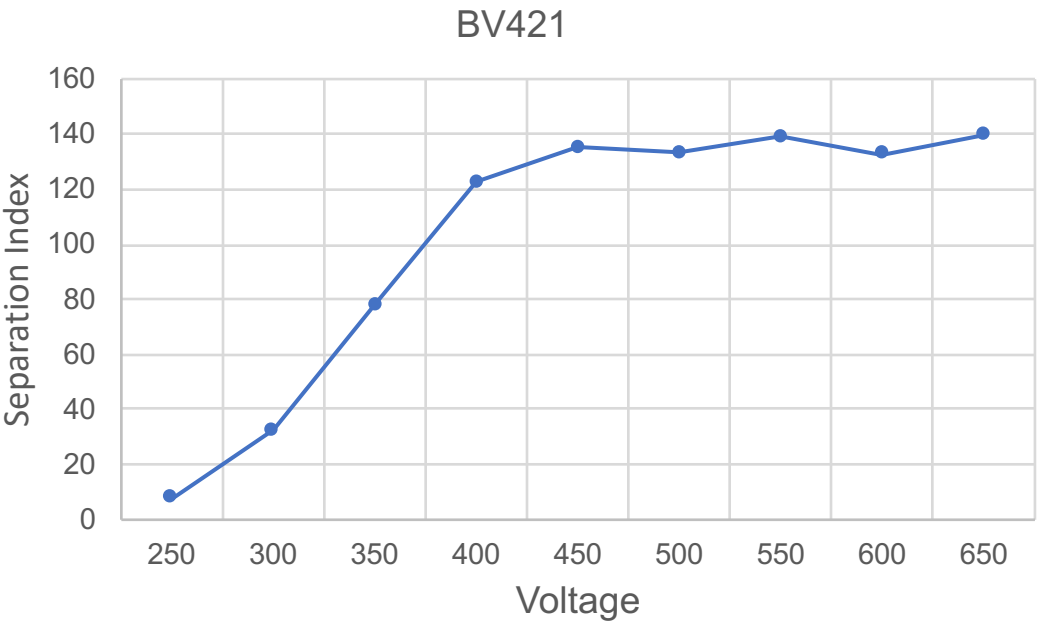
Very Bright

BV421



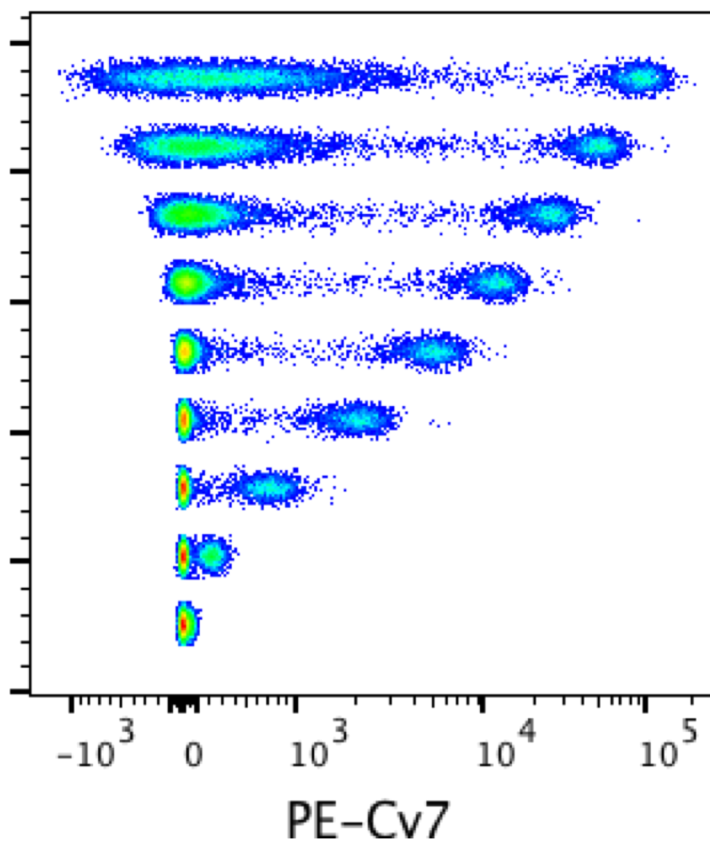
Violet (405 nm)

Voltage	SI
650	139.666305
600	132.562897
550	138.873142
500	133.253006
450	134.990059
400	122.634443
350	78.0618578
300	32.4755622
250	7.63005181



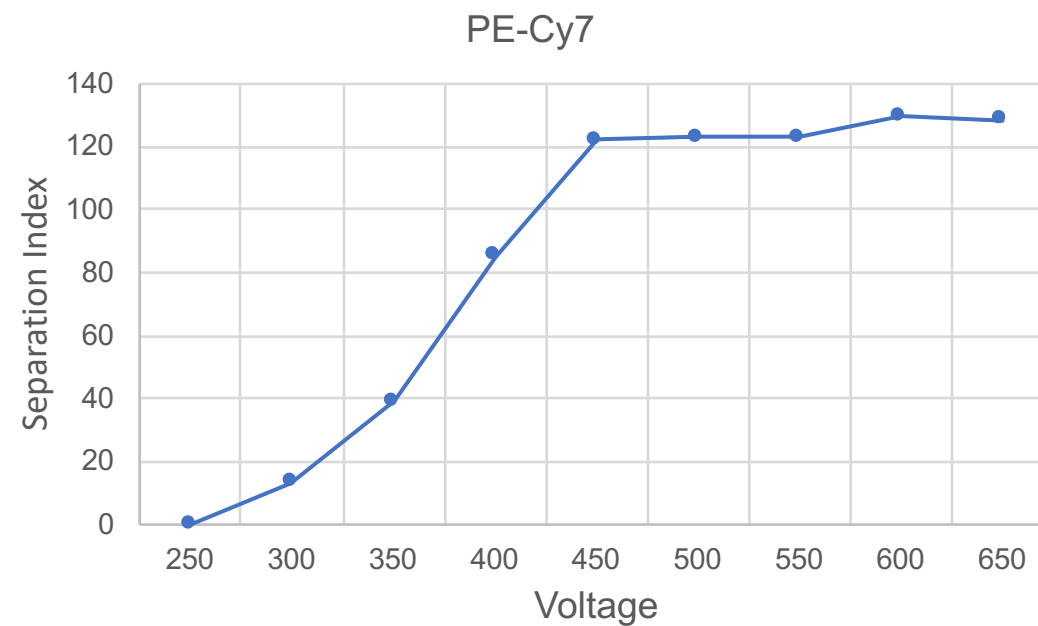
Bright

PE-Cy7



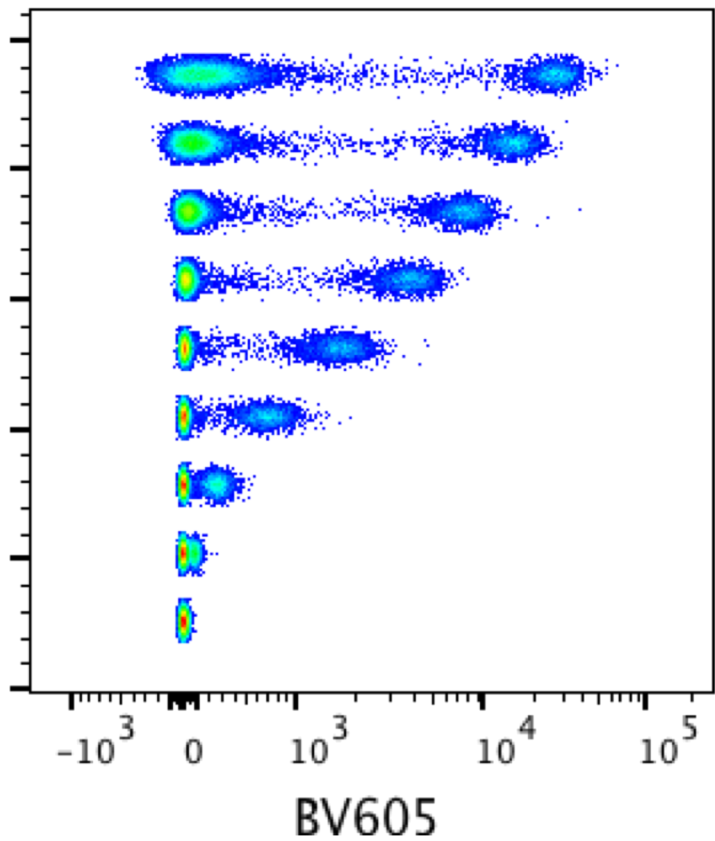
Yellow/Green (561nm)

Voltage	SI
650	128.698355
600	129.77446
550	123.192444
500	123.007013
450	122.005
400	85.1322345
350	39.1329856
300	13.1077844
250	0



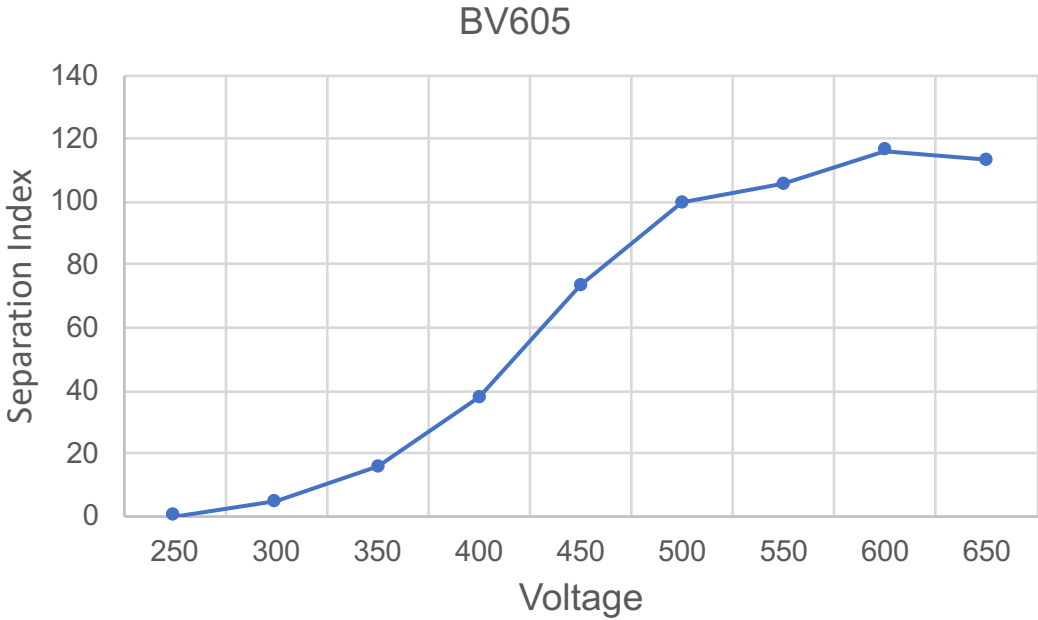
Bright

BV605



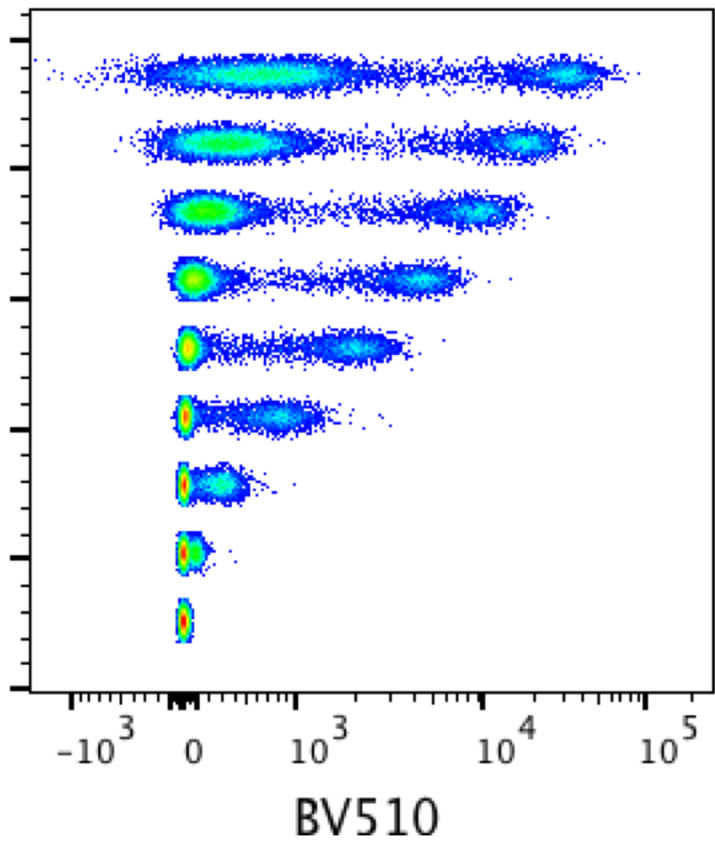
Violet (405 nm)

Voltage	SI
650	113.199018
600	116.04864
550	105.635593
500	99.4226111
450	73.2420413
400	37.9790669
350	15.5748445
300	4.6358737
250	0

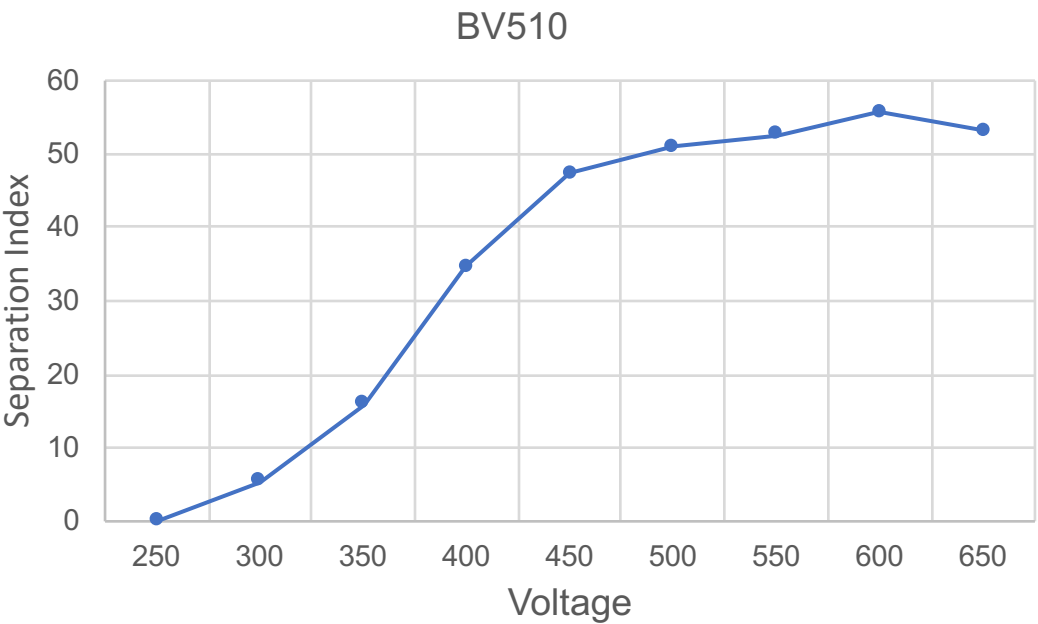


Moderate

BV510



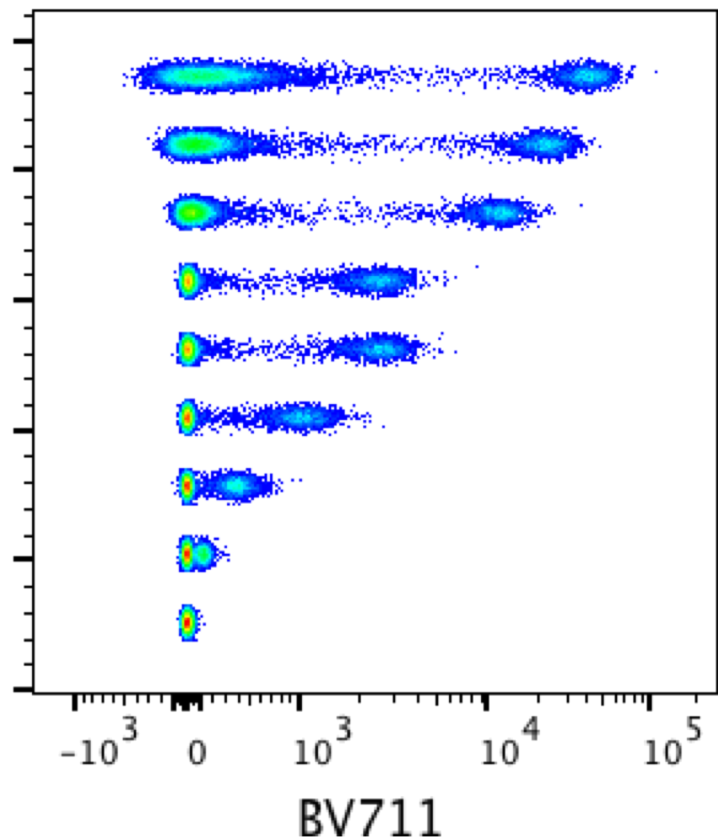
Voltage	SI
650	53.1444808
600	55.7526825
550	52.5947651
500	50.9018988
450	47.3545308
400	34.6104817
350	15.9947496
300	5.39574917
250	0



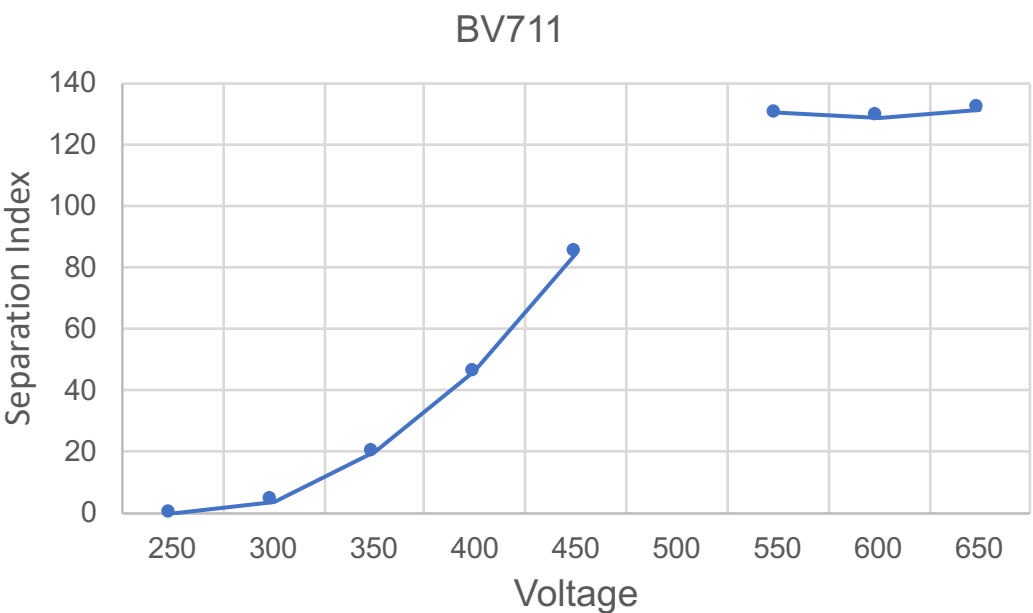
Violet (405 nm)

Moderate

BV711



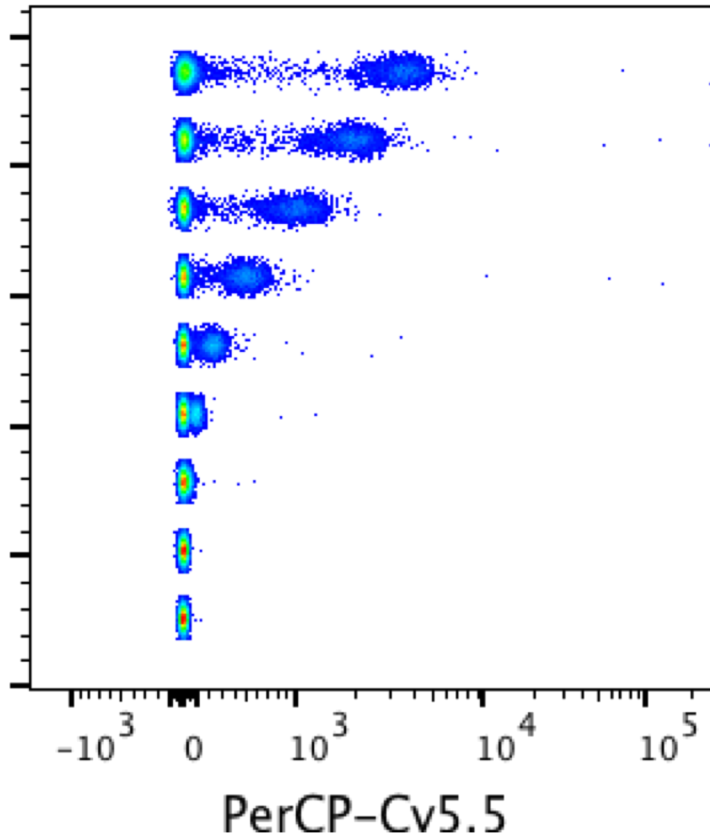
Voltage	SI
650	131.432003
600	129.10125
550	130.14387
450	
450	84.7978349
400	45.9999657
350	19.9683351
300	3.73658382
250	0



Violet (405 nm)

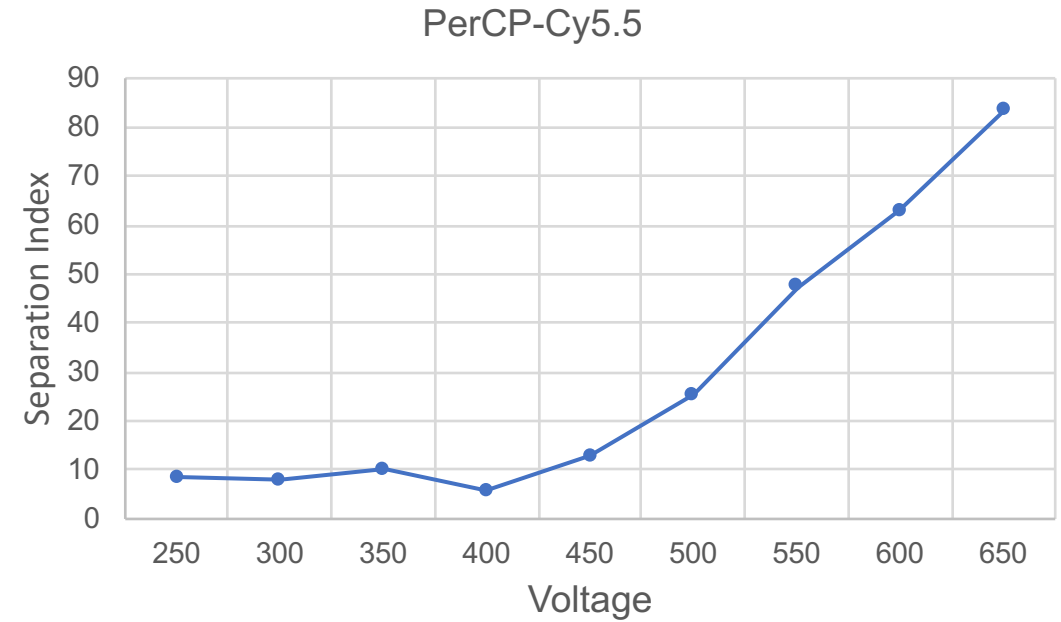
Moderate

PerCP-Cy5.5



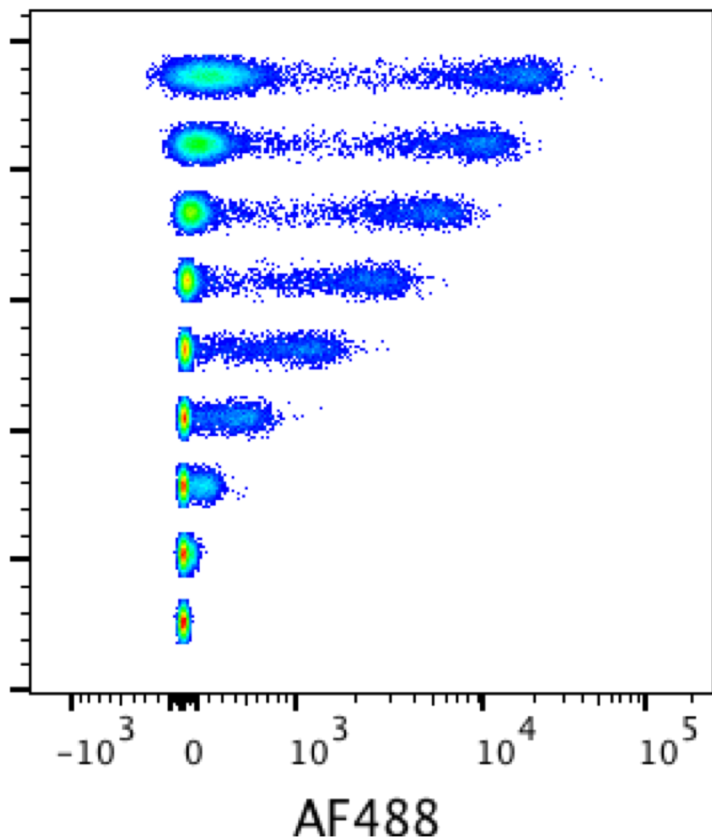
Blue (488 nm)

Voltage	SI
650	83.2725
600	62.8131695
550	47.3605474
500	25.4276053
450	12.7138889
400	5.8210479
350	9.97656057
300	7.88048835
250	8.52005988



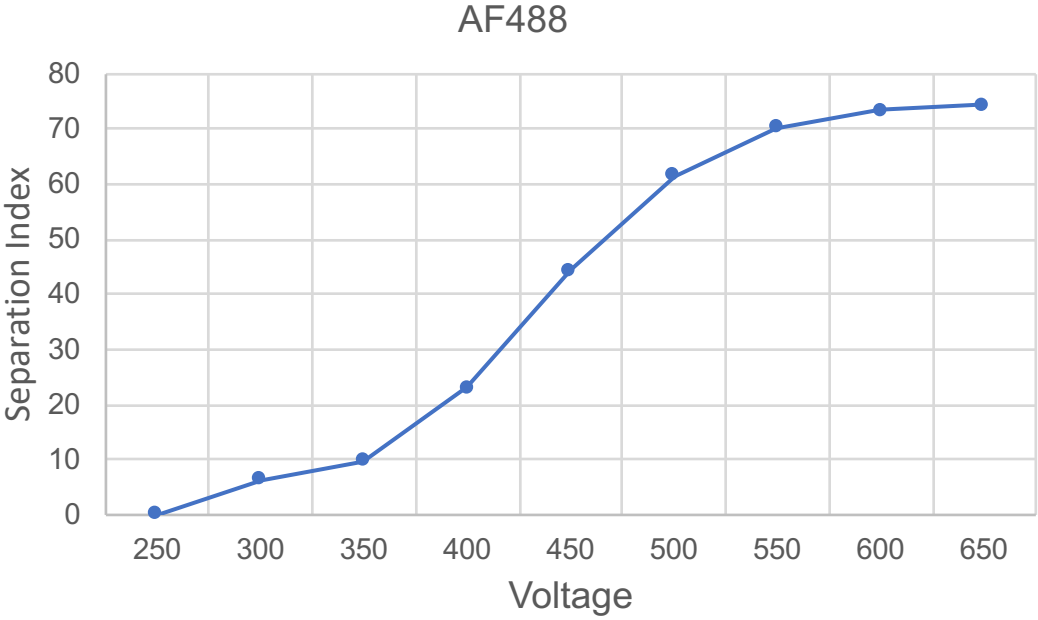
Moderate

AF488



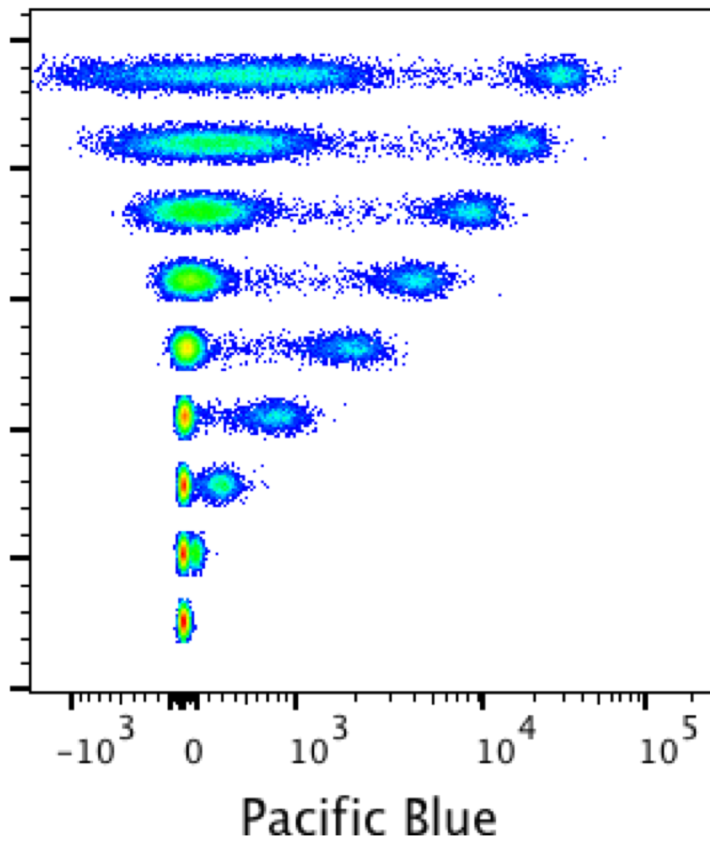
Blue (488 nm)

Voltage	SI
650	74.5208115
600	73.4671818
550	70.3894349
500	61.6512725
450	44.4509404
400	23.1085706
350	9.7429067
300	6.29894251
250	0



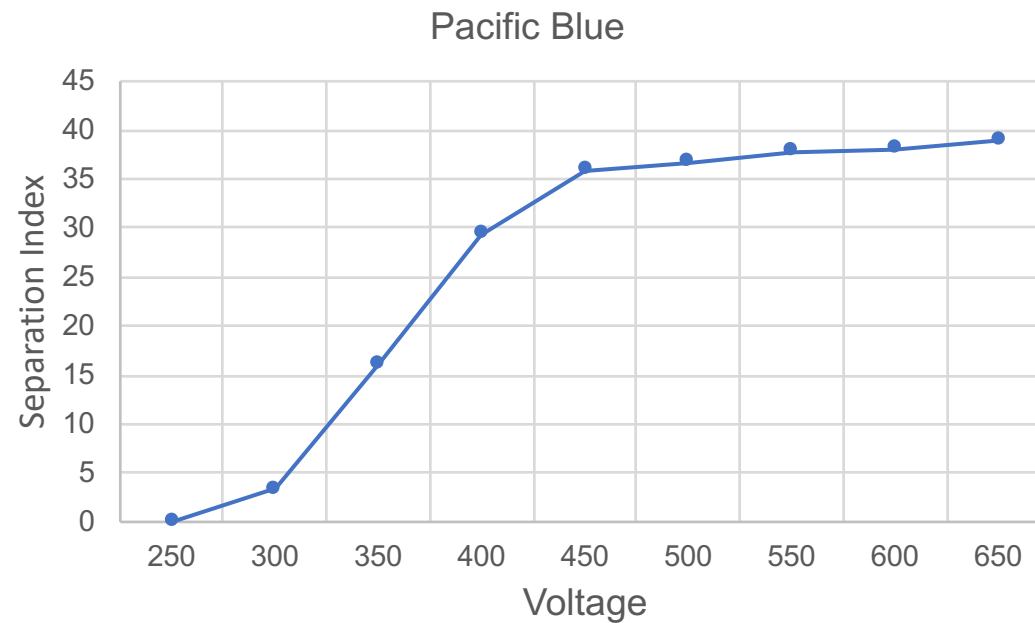
Moderate

Pacific Blue



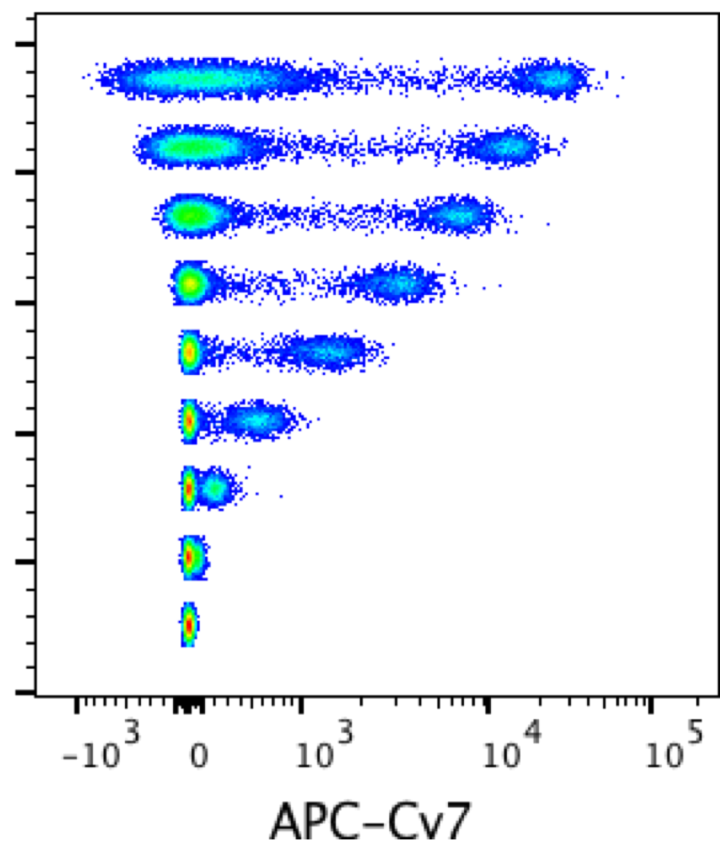
Violet (405 nm)

Voltage	SI
650	38.9497789
600	38.038073
550	37.7815714
500	36.7554303
450	35.9073852
400	29.3602734
350	16.1389554
300	3.35836745
250	0



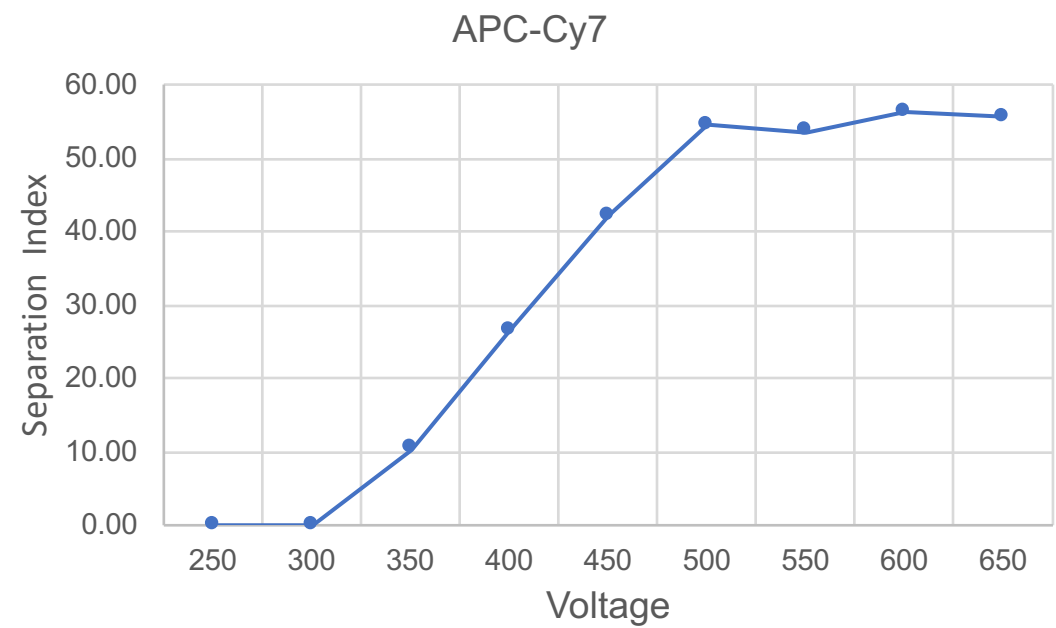
Dim

APC-Cy7



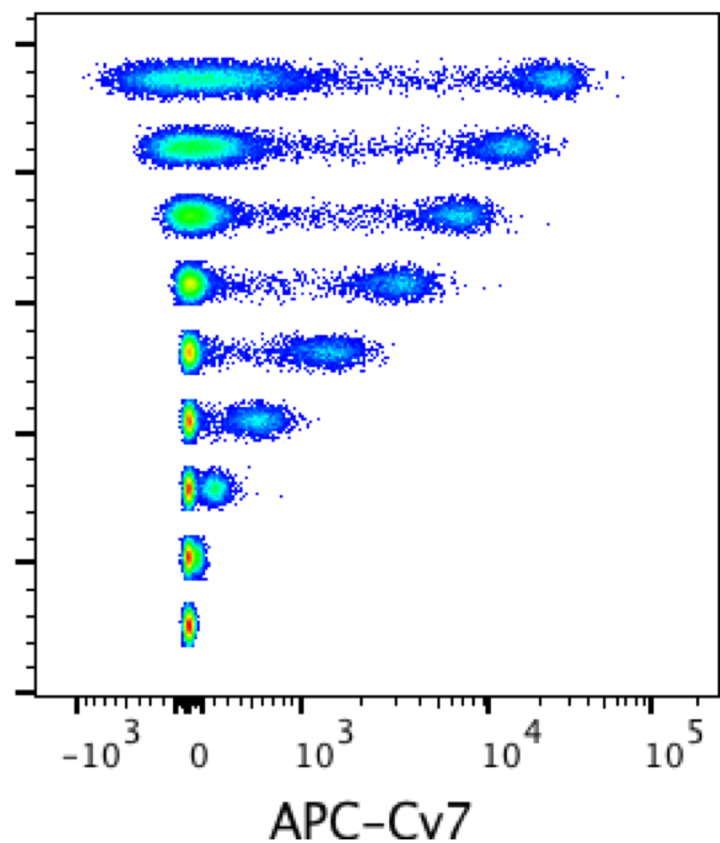
Red (640nm)

Voltage	SI
650	55.5229703
600	56.2686622
550	53.4997162
500	54.5333704
450	42.1951787
400	26.5315563
350	10.4139896
300	0
250	0



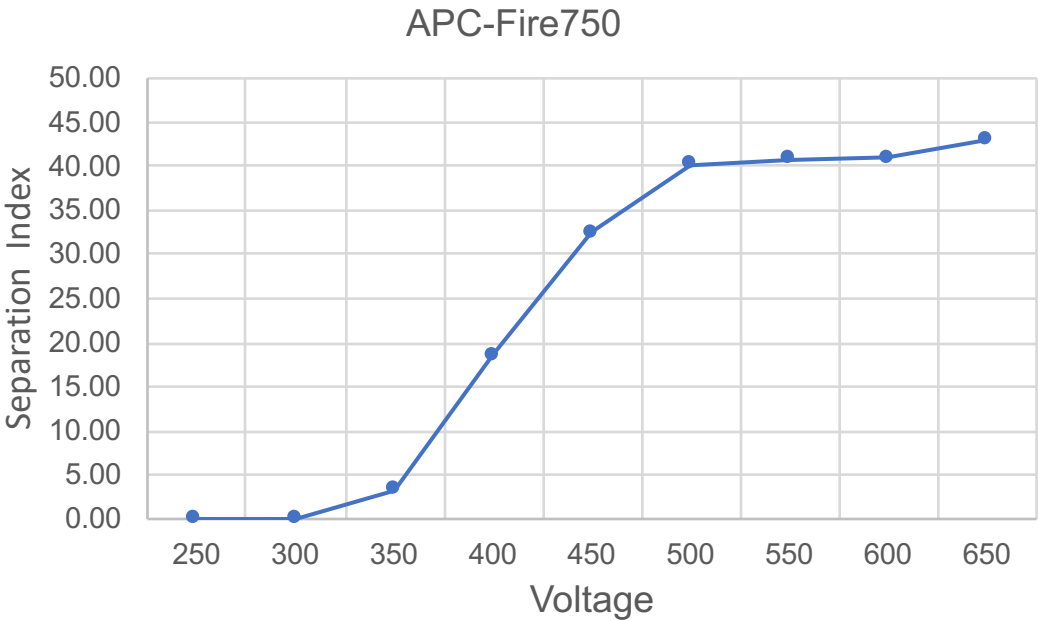
Dim

APC-Fire750



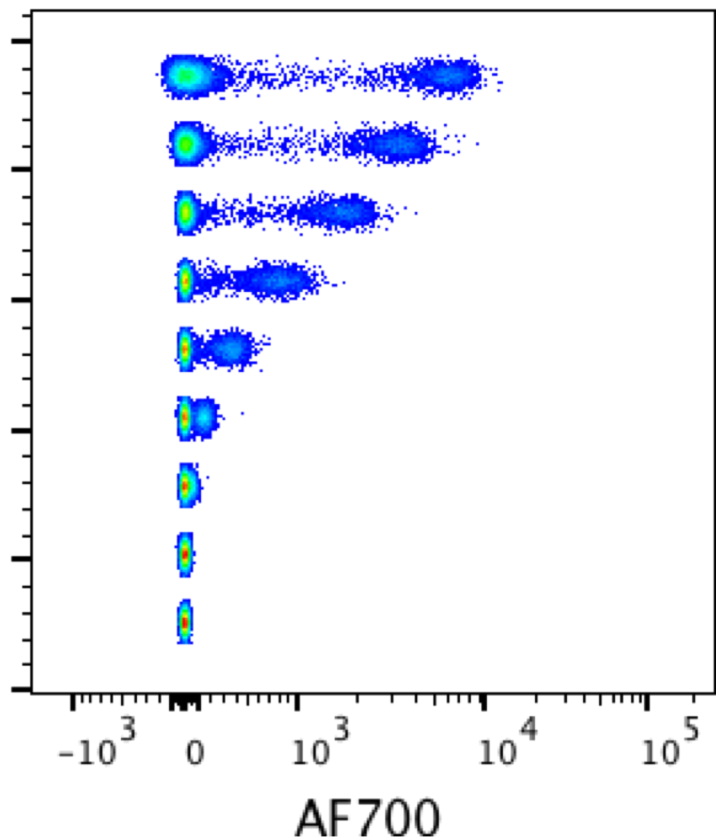
Red (640nm)

Voltage	SI
650	43.0103974
600	40.9829225
550	40.8043078
500	40.1559381
450	32.4440442
400	18.606306
350	3.31925108
300	0
250	0

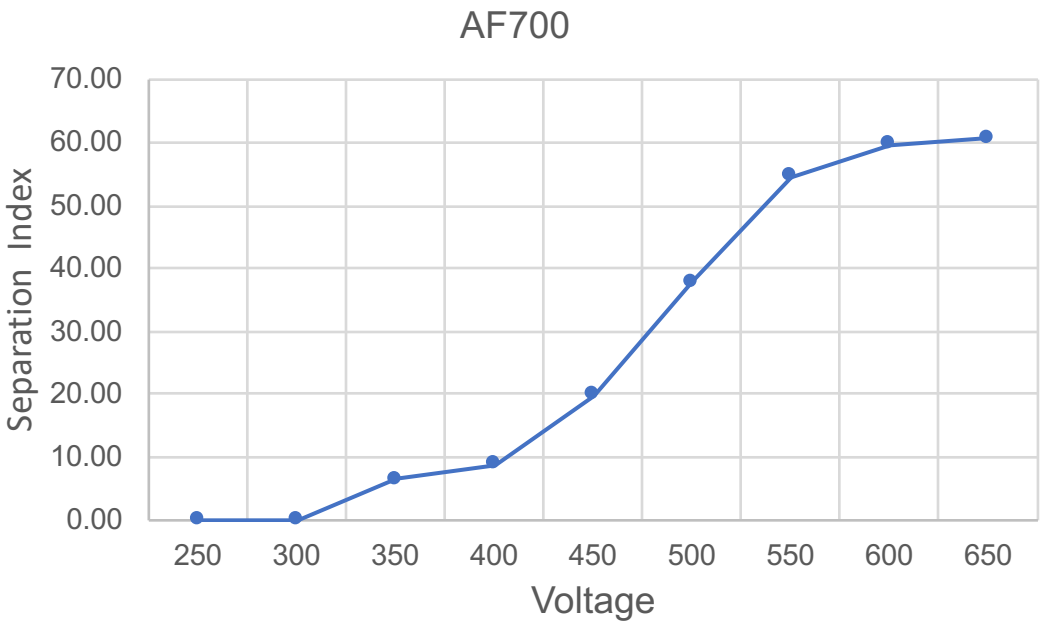


Dim

AF700



Voltage	SI
650	60.7275518
600	59.5719883
550	54.5960685
500	37.7755894
450	19.9176693
400	8.87754491
350	6.46109442
300	0
250	0



Red (640nm)

Dim