

**Joseph W. Mattson** named as **Ryusuke Hasegawa Graduate Fellow** (11/2017)



Metglas, Inc., the world's leading producer of Amorphous Metal Foil ([www.metglas.com](http://www.metglas.com)) is pleased to announce **Ryusuke Hasegawa Graduate Fellow: Joseph W. Mattson**, Ph.D student in Chemical and Biomolecular Engineering, Cornell University. Joseph does his PhD research on "Rapid solidification by planar-flow casting" with Ph.D advisor Paul H. Steen, Maxwell M. Upton Professor in Engineering of the Robert Frederick Smith School of Chemical and Biomolecular Engineering.

The Fellowship honors Ryusuke Hasegawa, Metglas' Vice President of Research and Development, an expert on amorphous magnetic materials, for his years of service. Dr. Hasegawa has had a distinguished career starting with his Ph.D. work at CalTech with Professor Pol Duwez, a pioneer in the discovery of metallic glasses. Dr. Hasegawa has been with Metglas since the 1970's (then Allied Signal) and has led the development of soft magnetic amorphous materials for use in commercial applications such as energy efficient transformers. He has authored more than 150 technical papers in the field of amorphous and crystalline magnetic materials and their applications and he has 51 U.S. patents.

Metglas' interest is in how the processing conditions during rapid solidification couple to the amorphous and near-amorphous structure of the foil. Metglas' aim is to cultivate the interest and develop the skills of potential employees, according to Dr. Eric Theisen, Metglas Research and Development Manager. The CCMR will administer the Fellowship.

The following pages give further background on Dr. Hasegawa.

## BIOGRAPHY



RYUSUKE HASEGAWA

### Education:

Ph.D.	(Materials Sci.)	California Institute of Technology	1969
M.S.	(Electrical Eng.)	California Institute of Technology	1968
M. Eng	(Electrical Eng.)	Nagoya University (Japan)	1964
B. Eng.	(Electrical Sci.)	Nagoya University (Japan)	1962

### Work Experience:

2003-present	Metglas, Inc Vice President, Research & Development
1975-2003	Honeywell International Inc (Amorphous Metals Business) Director, Technology (1997-2003); Director, Magnetism Research (1992-97); Director, Far East Operation (1989-92); Vice-President, Nippon Amorphous Metals (1985-89); Sr. Research Associate/Res. Associate/Group Leader/Sr. Staff Physicist (1975-85)
1973-75	IBM Thomas J. Watson Research Center (Yorktown Hts, NY) Post Doctoral Fellow/Sr. Research Associate/Res. Associate/Group Leader/Sr. Staff Physicist (1975-85)
1973-76	IBM Thomas J. Watson Research Center (Yorktown Hts, NY) Post Doctoral Fellow

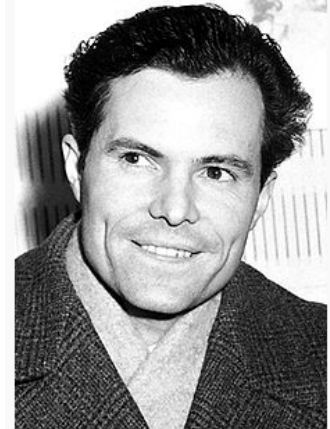
## Colleagues with influence on the 'scientific' Souk Hasegawa



**Pol Duwez (1907-1984)** – a Belgian-born materials scientist. In 1960, while working at Caltech he discovered metallic glasses by rapidly quenching a liquid metal alloy. **Hasegawa's advisor.**



Richard Phillips Feynman



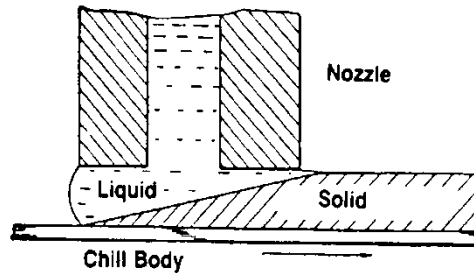
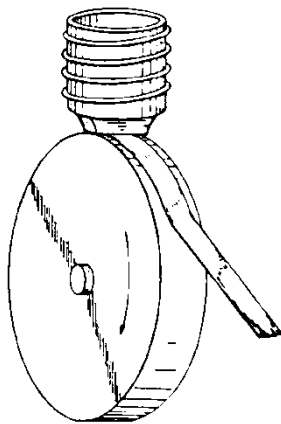
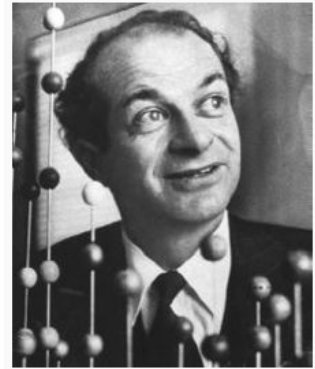
R. L. Mössbauer, 1961

Nevill Francis Mott

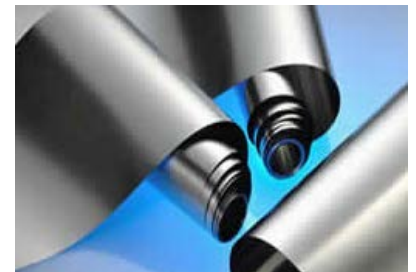


Ryusuke Hasegawa, circa 2012

Linus Pauling



**US Patent No. 1,142,571 (D. Narasimhan, 1979)**



<https://metglas.com/>