Curriculum Vitae

William Edward Mayo
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Allentown, NJ 08501
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Education

1982	**Post Doctoral Fellow**, Bell Labs, Murray Hill NJ - Major areas of study: XRD characterization of III-V thin films.
1982	**Ph.D.** (Mechanics and Materials Science), Rutgers University, Piscataway NJ - Major areas of study: structural and failure analysis of materials deformed by fatigue and stress corrosion cracking; development of computerized x-ray testing methods; modeling of hardening mechanisms and phase transformations.
1974	**M.E.** (Metallurgy and Materials Science) Carnegie-Mellon University, Pittsburgh PA., - Major areas of study: metal processing methods and semiconductor characterization.
1971	**B.S.** (Physics) Carnegie-Mellon University, Pittsburgh PA.

Post Graduate Training

2013-2015	**Current Good Manufacturing Practices (cGMP) –** Classroom training in FDA required aspects of pharmaceutical testing.
2003	**Advanced Rietveld Analysis –** Georgia Tech University, Atlanta, GA
2000	**Rietveld Analysis –** Universität Bayreuth, Bayreuth, Bavaria, Germany

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Academic Employment

2008- pres	**Emeritus Professor**, Rutgers University, Piscataway NJ, Material Science and Engineering Dept.
1998-2008	**Professor**, Rutgers University, Piscataway NJ, Ceramic and Materials

Engineering Department (now *Materials Science & Engineering Dept*)

1995-1998	**Associate Professor**, Rutgers University, Piscataway NJ, Ceramic and Materials Engineering Department.
1988-1995	**Associate Professor**, Rutgers University, Piscataway NJ, Dept. of Mechanics and Materials Science.
1982-1988	**Assistant Professor**, Rutgers University, Piscataway NJ, Dept. of Mechanics and Materials Science.
1978-1982	**Research Assistant**, Rutgers University, Piscataway NJ, Dept. of Mechanics and Materials Science.

Non-Academic Employment

1997-pres	**H&M Analytical Services**, Allentown NJ, (Co-Founder and Chief Scientist).
2011-pres	**Veracity Network,** Vero Beach FL, (Co-founder/Science Advisor) - formerly Xstream Systems.
2004-20011	**Xstream Systems,** Vero Beach FL, (Co-founder/Science Advisor).
1999-2001	**Nanopac,** New Brunswick NJ, (Co-founder)
1977-1978	**TRW** (Reda Pump Division), Bartlesville OK, Materials Engineering Section, (Metallurgist).
1974-1977	**Olin Metals Research Laboratory**, New Haven CT, Physical Metallurgy Section, (Metallurgist).
1970-1972	**Harry Diamond Research Laboratory**, Washington, DC, Microminiature Branch, (Physicist).

Honors

2006	**Fellow**, International Centre for Diffraction Data, Newtown Square PA.
1982	**Post-Doctoral Fellow,** Bell Laboratories, Murray Hill, NJ

Editorial Positions

1994-2007	**Editor**, *Metals Index of the Powder Diffraction File*, ICDD
1998-2007	**Assistant Editor for New Diffraction** Data, *Powder Diffraction* (Journal)
1998-2001	**Assistant Edi**tor, *Nanostructured Materials* (Journal)
1996-2000	**Editorial Staff**, *PDF-4 Relational Database*, ICDD

1997-1998	**Editorial Staff**, *The Blue Book*, ICDD
1987-1988	**Chair, Editorial Boa**rd, TMS/AIME Conference on High Temperature Superconductors, Rutgers University
1985-1986	**Member, Editorial Board**, TMS/AIME Conference on Semiconductor Defects, Bell Labs
1979-1984	**Assistant Editor**, *Metals Index of the Powder Diffraction File*, ICDD
1982-1983	**Member, Editorial Board**, US/France Cooperative Meeting, Snowmass, CO

Technical Society Memberships (past 10 years)

American Ceramic Society

American Crystallographic Association

International Centre for Diffraction Data

Materials Research Society

Metallurgical Society

Sigma Xi Honorary Society

Teaching (Courses Taught)

150:254	Laboratory II (X-ray diffraction and X-ray fluorescence)
150:206	Thermodynamics
150:309	Analytical Techniques in Ceramics
150:408	Analytical Techniques for Ceramics Research
150:520	X-ray Diffraction and Spectroscopy in Ceramics
150-521	X-ray Diffraction and Spectroscopy Laboratory
150-524	Advanced Characterization
150:532	Kinetics: Diffusion, Phase Transformations and Sintering
150:563	Advanced X-ray Diffraction
440-127	Introduction to Computing for Engineers
440-407	Mechanical Properties of Materials
655-351	Metallurgical Engineering
655-551	Physical Metallurgy I
655-552	Physical Metallurgy II
635-553	Mechanical Behavior of Metals

655-561	Computer Aided Experimentation
655-595	Advanced Physical Metallurgy I
655-601	Kinetics of Metal Systems
655-xxx	X-ray Diffraction (unaccredited course)

Teaching (Courses Developed)

150:254	Laboratory II (X-ray diffraction and X-ray fluorescence)
150:520	X-ray Diffraction and Spectroscopy in Ceramics
150:521	X-ray Diffraction and X-ray Spectroscopy Laboratory
440-125	Introduction to FORTRAN
655-561	Computer Aided Experimentation
655-553	Mechanical Behavior of Metals
655-601	Kinetics in Metal Systems

Teaching (Courses Supervised)

440-125	1990 - 1996 (Average of 125 students/year)
440-127	1982 - 1996 (Average of 900 students/year)
655-221	1990 - 1991 (Approximately 750 students)
655-222	1990 - 1991 (Approximately 400 students)

Personnel Supervised

	Christian Pinzone, Ph.D. 2006
	Chandrusekhar Reddy Gorla, Ph.D. 1999
	Yu Chi Wang, Ph.D. 1998
	Matthew Schurman, Ph.D. 1998
Ph.D. Students	Shih-Chieh Liao, Ph.D. 1996
	Chiao-Yi Hwang, Ph.D. 1995
	Ganjiang Feng, Ph.D. 1992
	Jhong Wah Lee, Ph.D., 1992
	Shyam Rao, Ph.D., 1992
	Chi-Fung Lo, Ph.D., 1989
Post-Docs	Hidehiko Kamide (1986-88)
	Nagabusham Patibandla (1989-90)

Ping Lu (1993-95)
B S Sywe (1994-95) (w/ Y. C. Lu)
Shih Chieh Liao (1997-99)
James Colaizzi (1999-00)

Visiting Professors	Masanori Kurita (1988-89), Nagaoka Technological University, Japan
	Zwi Kalman (1989-2001), Hebrew University, Jerusalem, Israel

University Service

University	Hub Computer Committee (1994-1998)
	Common Purposes (Executive Committee) (1994-95)
	Search Committee for VP for Computing (1991-92)
	Radiation Safety Committee (1984-90)
College	Freshman Computing Committee (1983-96)
	Freshman Computer Course Coordinator (1983-96)
	College Planning Committee (1989-1994)
	Health and Safety Committee (1986-1991)
	Grievance Committee (1991-94)
Department	Committee on Strategic Plan (1993)
	Seminar Series Organizer (1983-84, 1992)
	Safety Officer (1983-91)
	Space Committee (1991-93)
	Computer Course Coordinator (1982-1996)
	X-ray Laboratory Supervision (1983- 2008)

Scholarly Service Activities

Invited Speaker	Eastern Analytical Society (2014)
	Sintering 99 Conference (1999)
	Victims of PanAm 103 (1996)
	American Civil Liberties Union (1996)
	Carnegie Institute (1995)
	Congressional Office of Technology Assessment (1995)
	Bureau of Alcohol, Tobacco and Firearms (1995)
	Denver X-Ray Conference (1995)
	International Centre for Diffraction Data (1993)
	National Academy of Sciences (1991)
	Congressional Office of Technology Assessment (1991)
	Naval Weapons Laboratory (1991)

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