Curriculum Vitae for Alison Chaiken

Home:
47 Esparito Ave.
Fremont, CA 94539
www.wsrcc.com/alison/
(510) 580-0966

Work:
Mailstop 1159
Hewlett-Packard
1501 Page Mill Rd.
Palo Alto, CA 94304
chaiken@hpl.hp.com

Professional Interests and Skills:

Advanced data storage concepts. Structure determination using x-ray techniques. Crystallization and nucleation phenomena. Semiconductor thin films and devices. Transport and exchange coupling in magnetic thin films and multilayers.

Work Experience:

1997–present:

Senior staff scientist and technical leader in Advanced Storage Department of at Hewlett-Packard Laboratory in Palo Alto working on physics of III-VI semiconductor devices for recording applications. Techniques used include laser melting and recrystallization, surface potential and atomic force microscopy, film deposition by molecular-beam epitaxy and sputtering, and optical and x-ray characterization methods. Research supervisor for postdoc and summer students.

1992–1997:

Physicist at Lawrence Livermore National Laboratory. Projects included interlayer exchange and giant magnetoresistance in magnetic multilayers; exchange anisotropy in ferromagnet/antiferromagnet bilayers; giant magnetoresistive sensors in landmine detection and for non-destructive evaluation applications; x-ray absorption measurements on the multiple phases of iron silicides and boron nitride. Supervisor for postdoc and three undergraduate students.

1988–1991:

National Research Council postdoctoral associate at Naval Research Laboratory in the group of Dr. Gary Prinz. Studied giant magnetoresistance and exchange coupling in MBE–grown magnetic multilayers. Set up computer-controlled vibrating sample magnetometer and magnetotransport systems.

1982–1983:

Research assistant at Raytheon Research Division in Lexington, MA characterizing HgCdTe infrared photoconductive detector materials.

Education:

1983–1988:

Graduate student at the Massachusetts Institute of Technology. Obtained a PhD in physics under Prof. M.S. Dresselhaus on the thesis topic "Superconducting Properties of Ternary Graphite Intercalation Compounds." IBM Predoctoral Fellow 1985. Built a ^{3}He system for sub–Kelvin critical field measurements.

1979–1982:

Undergraduate student at Dartmouth College. Graduated cum laude with honors in physics. Teaching assistant for both lecture and lab courses.

Professional activities:

- Author of over 30 refereed publications plus many patent applications (four issued) on semiconductor and magnetic devices. My Hirsch number equals 9.
- Editorial Board, *Annual Review of Materials Science*, 1994-1999.
- Member, Defense Sciences Study Group, Institute for Defense Analyses, 2002-2003. Current DOD Secret clearance.
- Program committee co-chairman, 1998 Joint Intermag-MMM Conference.
- Former member, IEEE Magnetics Society Advisory Committee and Executive Committe of the American Physical Society Topical Group on Magnetism.

Personal:

Born 1962 in Philadelphia. Enjoy hiking, cooking and non-commercial radio. Webmaster and graphic designer for two non-profits.

References:

Dr. Jagadeesh Moodera
Francis Bitter Magnet Lab
MIT
Cambridge, MA 02139
(617) 253–5423
moodera@mit.edu

Dr. Louis Terminello
Head, Matls. Sci. Techn. Div.
Lawrence Livermore Lab
Livermore, CA 94550
(925) 423–7956
terminello1@llnl.gov