ANTHONY J. IRVING

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Personal: Born November 2, 1946; Sydney, Australia

Education:	B.Sc. (with Honors)	1968	The University of Sydney, Australia
	Ph.D.	1972	The Australian National University, Canberra

Academic Experience:

2009-present	Affiliate Professor, Dept. of Earth and Space Sciences, University of Washington
2001-2009	Lecturer, Dept. of Earth and Space Sciences, University of Washington
1996-2013	Geoscience and Astronomy Instructor, Seattle Community Colleges
2006	Visiting Scientist, Lunar and Planetary Institute, Houston
1979-2001	Research Associate Professor, Research Scientist 3 and Affiliate Associate Professor , Dept. of Geological Sciences, University of Washington
1990-2002	Visiting Investigator, Dept. of Terrestrial Magnetism, Carnegie Institution of Washington, Washington, D.C.
1976-1979	Visiting Research Scientist, Lunar and Planetary Institute, Houston Co-editor, Jackson Volume of American Journal of Science
1974-1975	Research Associate, Massachusetts Institute of Technology
1972-1973	Research Associate, University of Chicago

Educational Website: http://www.imca.cc/mars/martian-meteorites.htm

Publications: 90 peer-reviewed articles in international journals and books, including:

Irving, A. J. and Green, D. H. (2008) Phase relationships of hydrous alkalic magmas at high pressures: Production of nepheline hawaiitic to mugearitic liquids by amphibole-dominated fractional crystallization within the lithospheric mantle. *J. Petrology* **49**, 741-756.

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Brief Biography

Dr. Anthony Irving is a petrologist and geochemist whose interests and research have ranged from experimental petrology of terrestrial alkalic basalts to petrologic and trace element studies of mantle xenoliths to petrogenesis of potassic mafic lavas, and more recently to meteoritics. From 1972 until 1979 he participated in petrologic analyses of Apollo 16 and 17 samples, conducted a detailed review of lunar impact melt rocks, and at the Lunar and Planetary Institute he worked on the petrogenesis of lunar KREEP basalts as well as experiments on trace element partitioning in mare basalts. He was a member and editor of the Basaltic Volcanism Study Project, as well as co-editor of the Jackson Volume of the American Journal of Science. From 1979 to 2000 Dr. Irving conducted petrologic, elemental and isotopic studies of terrestrial alkalic igneous rocks and mantle xenoliths contained within them, while also teaching undergraduate

and graduate courses at the University of Washington on terrestrial and planetary geology. He has conceived and led numerous outreach programs in both classroom-based and field-based geology and was the former Northwest regional director of the NSF Chautauqua professional development program for college educators. Over the past 18 years he has led or co-led significant petrologic and isotopic research studies of achondrites found in Northwest Africa, in particular many of the recently recovered lunar and Martian meteorites. Dr. Irving continues to lecture on planetary geology and is the architect of a widely-heralded educational website about Martian meteorites.