

## **Presentation of the Mineralogical Society of America Award for 2007**

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The Mineralogical Society of America Award recognizes outstanding published contributions to mineralogy by individuals near the beginning of their professional careers. I am delighted to introduce Richard Harrison to you, since his research achievements mark him out as a most worthy recipient of this honor and as one of the leading mineralogists of his generation. Richard's talents were evident from an early stage, marked out by academic prizes in his undergraduate career and since in his postgraduate work. He is near the beginning of his career, yet has already held prestigious fellowships, received the Max Hey medal of the Mineralogical Society and the Gilbert Award of the AGU. But his published papers represent his real string of pearls: ranging from lamellar magnetism in minerals through to the anelastic properties of ferroelastics, and from applications in paleomagnetism to seismic wave propagation; work linked by an underlying theme of relating mineral properties across a wide range of length scales.

Richard began his scientific career at the University of Cambridge, graduating in Mineral Sciences and then working as a postgraduate student under the guidance of Andrew Putnis. His Ph.D. work, on magnetic and cation ordering in spinels, was followed by further studies into the relationships between magnetic properties and microstructure of minerals carried out at Muenster and funded through personal Alexander von Humboldt and Marie Curie fellowships. I was personally delighted that Richard was subsequently able to return to Cambridge where he has since worked as a NERC Advanced Research Fellow and, more recently, to the permanent academic position that he most surely deserves.

Richard's work combines theory and experiment, and he

doesn't relate to borders between disciplines and techniques. He has the green fingers of a gifted experimentalist, so that even the most challenging experiments yield to his touch. He has the ability to focus on the task at hand and see the core of a research problem from the start, bringing insights and new perspectives on the pertinent phenomena in each case. Those of us fortunate to have enjoyed working with him will attest to the fact that such collaborations are fun and exciting, as science should always be, oiled by Richard's personal modesty and sense of humor. Richard has not shied away from developing and applying new techniques to the problems that he chooses and has had notable success in using electron holography to identify nanoscale magnetic interactions in exsolved magnetic systems, but also combining neutron scattering methods, thermodynamic and kinetic models, Monte Carlo simulations, and then considering the implications for properties of bulk crystal and bulk rock scale samples.

Aside from his string of highly cited research articles, Richard's review papers have already been a great asset to others entering the field, and he has the knack of explaining challenging concepts clearly and accessibly. His teaching skills are warmly appreciated by a new generation of scientists that he instructs today, alongside his own graduate students and postdocs as he takes his work forward. I anticipate that the future will bring further accolades to further test his modesty and lack of arrogance, but Richard's firm focus and integrity will certainly match any such trials. In the meantime, I finish by returning to the purpose of the MSA award ... recognition of published contributions. Richard writes with an almost enviable style: his papers are a joy to read. I point you toward them, and present Richard Harrison, recipient of the MSA Award for 2007.