American Mineralogist, Volume 87, pages 795, 2002

Acceptance of the Mineralogical Society of America Award for 2001

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Mr. President, Members of the Society, and guests.

Thank you, Frank, for your kind citation. It is an honor to be chosen as the 2001 recipient of the Mineralogical Society of America Award, and I thank the society for selecting me.

I grew up in rural northern New Brunswick, Canada, and embarked on my journey to a career in mineralogy 15 years ago. I have been extraordinarily fortunate—I am doing something I love and have been rewarded generously. The first half of my journey was in Canada, and I am grateful to the Canadian mineralogical community and funding agency. The Canadian system provided me with an excellent undergraduate education in the basics, and the means by which to take my education and research to the next level.

The MSA Award recognizes my accomplishments in mineralogical research. More importantly, it recognizes the many scholars who have invested in me, for without them I would not be here today. They have diligently educated me in the scientific approach, placed faith in my abilities, and supported me throughout the development of my career. Lowell Trembath, my undergraduate mentor at the University of New Brunswick, instilled in me a fascination for mineralogical research and a dedication to excellence in research and teaching. I still remember his chuckle when he returned the first draft of my bachelor's thesis with the words "its OK, but next time write it in English." Mike Fleet took me through the transition from undergraduate student to graduate researcher. Frank Hawthorne provided ample guidance and inspiration during my Ph.D. studies, while still leaving me free to follow my interests—that's what really makes doing science fun. Michael Carpenter helped in my foray into phase transitions and microstructures of minerals. Rodney Ewing taught me about the politics of science and how to promote research in the U.S. system. Jim Kirkpatrick helped me make the transition from post-doc to faculty member. I am grateful to all of these individuals, and to the many others who helped me along the way.

I thank the University of Notre Dame for providing resources for the establishment of the Environmental Mineralogy and Crystal Structures Lab. I have been fortunate in having many excellent group members over the past five years. Post-doctoral fellows Francis Hill, Christopher Cahill, Sergey Krivovichev and Paul Hoskin, graduate students Yaping Li, Jennifer Jackson, Andrew Locock, Karrie-Ann Hughes, and Bridget McCollam, and undergraduates Rebecca Glatz, Leslie Hayden, Erin Keppel, Alex Garza, and Kathryn Deely have all been a pleasure and inspiration to work with.

Some say mineralogy is a fading science, but I beg to differ on that opinion. Mineralogists continue to study extraordinarily sophisticated natural systems, and to find new applications for their research. Perhaps more now than ever mineralogists are providing key contributions in various aspects of geochemistry, petrology, materials science, and solid state chemistry, in addition to contributions central to the discipline of mineralogy. We have entered a new phase in earth sciences, and especially mineralogy. The focus is shifting from rock-forming minerals to the thousands of less-common low-temperature minerals. This transition is largely driven by an increasing recognition of the importance of mineralogy to the environment. Recent advances in instrumentation, such as the introduction of CCD-based detectors of X-rays to crystallography and the construction of new synchrotron facilities, are leading to rapid increases in understanding of complex assemblages of low-temperature minerals. A tremendous challenge lies ahead: the occurrences, structures, thermodynamic stabilities and paragenesis of hundreds of low-temperature minerals require detailed study to properly equip geoscientists to tackle environmental problems today and in the future. This is a fascinating time to be doing mineralogy.

Finally, I want to thank the most important person in my life. My wife Tammy has demonstrated infinite patience while making many sacrifices for the advancement of my career. She provides the best possible advice and support. She is the world's best mother for our son, Kelson.

It is most gratifying to be recognized for something you love to do. I thank you for this honor.

0003-004X/02/0506–795$05.00