## Acceptance of the Dana Medal of the Mineralogical Society of America for 2002

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I read several years ago about a Noble Laureate in chemistry who was being interviewed by a reporter. He was asked what it takes to win a Noble Prize. Without hesitation, the chemist said that it took three things. First, being a genius was definitely not required. Being reasonably intelligent was perfectly fine. Second, you needed to be a hard worker. (I remember thinking at that point in reading this story that the great majority of all successful scientists that I have ever known have fulfilled these two criteria. What then was the third, and presumably deciding factor, which resulted in winning a Nobel Prize. I read on anxiously.) Third, you not only had to be at the right place at the right time, but you had to be very, very fortunate! Indeed. And that is why I never even gave serious thought to winning a science prize of any sort. Not to mention that I have been accused in the past of being a dilettante geochemist. That comment must have had some element of truth because it struck a nerve. The proper response to that kind of comment is, "Don't you ever call me a geochemist!" as I learned from my wife, Prof. Barbara Bekken, who also doubles as my closest scientific colleague.

I would like to add a fourth criterion for winning a scientific prize. For an academic scientific prize, an extraordinary group of graduate students and post-docs over the years, in most cases, is also a requirement. And that I have definitely had. The relationships I have had with this group of PhDs and post-docs over the last 15 years has been magical (in terms of both productivity and friendship), and the proof, as they say, is



FIGURE 1. The state of the Nanogeoscience and Technology Laboratory in the Department of Geological Sciences at Virginia Tech as of the time of this writing. From left to right in the back row are Chris Tadanier, Saumyaditya Bose, Andy Madden, Tracy Cail, and Mike Hochella. From left to right in the front row are Treavor Kendall and Brian Lower.

We are all co-owners and co-investors.

I will end this acceptance with a personal family story. Barbara and I have two children, Michael and Katherine. I am 49 years old, but my eldest child, Michael the younger, is only 10.

in *their* success. Look at where those who have been in our group are now (Table 1).

I do not think about what is in Table 1 as something that I have done, but something that we have created. Speaking of our Nanogeoscience and Technology Laboratory (as we now call it) at Virginia Tech (Fig. 1), I certainly do not consider it "my" lab, nor is this group "my" group. It is, importantly I think, "our" lab and "our" group.

Name	Role and year finished	Present Position
Udo Becker	PhD 1995	Associate Professor, Univ. of Michigan
Barry Bickmore	PhD 1999	Assistant Professor, Brigham Young Univ.
Dirk Bosbach	Post-doc 1996	Senior Scientist, Institute for Nuclear Waste Disposal, Karlsruhe, Germany
Saumyaditya Bose	PhD (expected 2005)	PhD candidate, Virginia Tech
Tracy Cail	PhD (expected 2003)	PhD candidate, Virginia Tech
Patricia Dove	Post-doc 1992	Associate Professor, Virginia Tech
Carrick Eggleston	PhD 1991	Associate Professor, Univ. of Wyoming
Jodi Junta (Rosso)	PhD 1994	Series Editor, Reviews in Mineralogy and Geochemistry
Treavor Kendall	PhD 2003	Post-doc, Harvard Univ.
Brian Lower	Post-doc (through 2005	) Post-doc, Virginia Tech
Steven Lower	PhD 2001	Assistant Professor, Univ. of Maryland
Patricia Maurice	PhD 1993	Associate Professor, Univ. of Notre Dame
Andrew Madden	PhD (expected 2004)	PhD candidate, Virginia Tech
Erin O'Reilly	PhD 2002	NRC post-doc, Naval Research Laboratory, Stennis Space Center
John Rakovan	Post-doc 1997	Assistant Professor, Miami Univ.
Kevin Rosso	PhD 1998	Senior Research Scientist, Pacific Northwest National Laboratory
Susan Stipp	PhD 1991	Associate Professor, Univ. of Copenhagen
Chris Tadanier	Post-doc 1999	Assistant Professor, Virginia Tech
Tracy Tingle	Post-doc 1990	Senior Research Associate, Stanford Univ.*
Robert Weaver	PhD 2001	Research Microscopist, McCrone Research Inst., Chicago
Paul Wersin	Post-doc 1990	Project Mgr., Nagra (National Coop. for Disposal of Rad. Waste, Switzerlan
*Deceased 1996.		

He is a relatively slow reader and spelling in English makes little sense to him, so he is just like his dad. And also like his dad, he is forever curious about things and how they work. So recently, after asking me about the relative flying speeds of a 737 vs. a 747 (which I happened to know because I have been flying airplanes for 25 years), he asked me what the Dana Medal was made of. I told him that I actually knew that too, because I happened to note its composition from the medal description on the MSA website. "It's made out of bronze," I proudly told him. He immediately and confidently fired back, "Well then, who came in first and second?" There is nothing like growing children to keep one honest and in one's place.

So, to two of my heroes, James and Edward Dana, whose

brilliance in mineral classification science has withstood well over a century of time, to MSA, as the premiere mineralogical society in the world which, even though I have been president of the Geochemical Society, I have always considered to be my "home" society, to Rod Ewing, the now past-president of MSA who I think to be visionary, to Bob Bodnar and Gordon Brown, both of whom were my principal nominators for this award and whose scientific careers I look up to as nothing short of amazing, I thank you all for such a generous and wonderful gift, one that I will always cherish. Oh, and by the way, with Bob and Gordon out there, and other life-long mentors like Jerry Gibbs and Bernard deJong, I am more than pleased to come in third. Thank you.