the notion that risk is part of the research enterprise, but even in a time of budgetary bounty in the United States, U.S. lawmakers and citizens will not be automatically receptive to the notion that failure is built into research.

Another important educational message that MRS members need to carry forth to the public is how close nanotechnology is to every one of us. The scientific principles and observations that are the foundation for nanotechnology are not arcane, abstract, unseen, and unknowable by the public. A powerful demonstration of this is that we can see atoms. The beautiful, atomically resolved images of surfaces, interfaces, and artificially created structures are proof that observation and engineering intervention on the nanoscale is real. Yet nanoscience principles are manifest in our world in the wear of automobile tires, the color of paint, or the brightness of a traffic light.

The NNI has much to offer to materials researchers. However, it is our obligation to convey what nanotechnology has to offer to everyone else. Thirty years before Feynman's observations and almost 70 years before Clinton's announcement, Albert Einstein in 1931 remarked, "Never forget this, in the midst of your diagrams and equations: concern for man himself and his fate must always form the chief interest of all technical endeavors." One could hope that such understanding would be the real legacy of the National Nanotechnology Initiative.

HARRY A. ATWATER
2000 MRS President
haa@daedalus.caltech.edu

Letters to the Editor

NIST's Contribution to Neutron Scattering in Materials Research

To the Editor:

I am writing to comment on the December 1999 issue of *MRS Bulletin*. I was disappointed to observe that in an issue dedicated to neutron scattering in materials research, there was no mention of the NIST Center for Neutron Research (NCNR). The NCNR is operated as a national user facility, and it serves more users than all other U.S. neutron sources combined. The facility is located in the Materials Science and Engineering Laboratory of the National Institute of Standards and Technology at the Gaithersburg, MD site. It is the only U.S. facility offering world-class capabilities for both thermal and cold neutron research, with a fully developed cold neutron guide hall and instrumentation.

Much of the research at the NCNR is in the area of materials science, including strong programs in polymer science, highly correlated electron systems, ceramics, measurements of residual stress, powder diffraction, and other areas, including the rapidly growing area of neutron reflectivity (which was barely mentioned). In particular, the NCNR is heavily involved (both for in-house research and by outside users) in the area of soft materials (i.e., polymers, comlex fluids, biomaterials, gels...). In fact, in recent years six major prizes have been awarded for work done largely at the NCNR in the general area of soft matter and materials research.

While we at NIST were happy to see the publicity given to the use of neutron techniques, we believe that general reviews in *MRS Bulletin* should be less parochial than this one was.

J. Michael Rowe
Director, NIST Center for Neutron Research

Response:

As we noted in our introduction it was not our intent to provide comprehensive reviews of the fields described in the short articles contained in the December 1999 issue of *MRS Bulletin*. Rather, the aim was to give a brief introduction to selected applications of neutrons to problems of interest to the materials science community. If brevity has led to the appearance of a neglect of the important contributions of the NIST facility, then we apologize; that was not the intent. Indeed, NIST has made important contributions to neutron scattering across the range of science addressed in the *Bulletin* articles. For example, one area of particular significance is in studies of biomolecular materials carried out at NIST using neutron reflectometry highlighted in the article by J.K. Blasie and P. Timmins [page 40].

Thom Mason, Guest Editor
Oak Ridge National Laboratory
and
Andrew Taylor, Guest Editor
Rutherford Appleton Laboratory

https://doi.org/10.1557/mrs2000.32 Published online by Cambridge University Press