

August 1, 2011

President Barack Obama
The White House
1600 Pennsylvania Avenue
Washington, DC 20500

Dear President Obama,

We, as members of professional societies representing 673,600 scientists and engineers, enthusiastically support the plan to foster a new era of U.S. innovation embodied in the Materials Genome Initiative for Global Competitiveness, as a critical, enabling element of the Advanced Manufacturing Partnership (AMP).

We expect the investment of federal resources into the Materials Genome Initiative to provide valuable, long-term returns on many levels, including:

- Lower-cost insertion of advanced materials into U.S. manufacturing to provide a significant competitive edge in the world market
- Rapid deployment of materials solutions to meet national challenges
- Consolidation of scattered R&D efforts for a more cohesive, efficient approach to materials advancement.

With its goal of accelerated discovery, development, and insertion of advanced materials, the Materials Genome Initiative represents a logical outgrowth of a 2008 study by the National Research Council, *Integrated Computational Materials Engineering: A Transformational Discipline for Improved Competitiveness and National Security*. That study recognized the value of implementing Integrated Computational Materials Engineering (ICME) as a means to optimize materials, manufacturing processes, and component design long before fabrication begins. We, as science and engineering societies, have taken up this challenge. Even before this report was published, we have gathered innovators and problem-solvers to address barriers to applying integrated approaches using both computational and advanced experimental tools to achieve breakthrough innovation quickly and cost-effectively.

The Materials Genome Initiative, with its emphasis on computational and experimental tools and digital data, takes the findings of the 2008 NRC report to the next level, with its initial goals coinciding well with ongoing materials and manufacturing research and development.

Specifically, those goals are to develop:

- Materials for national security, including high strength, lightweight alloys for transportation systems
- Materials for human health and welfare, including protective gear for increased safety
- Materials for clean energy systems, including synthetic materials that replicate photosynthesis.

President Barack Obama
August 1, 2011
Page 2

We strongly support this strategy of investing in successful programs to encourage greater collaboration and sharing of information for the betterment of U.S. competitiveness in R&D and industrial development. As you said in your address to launch AMP on June 24 at Carnegie Mellon University, "If we combine our creativity, our innovation, and our optimism, if we come together in common cause, as we've done so many times before, then we will thrive again. We will get to where we need to be. And we will make this century the American century just like the last one was." We see the Materials Genome Initiative as a catalyst for accelerating the realization of this "new American century."

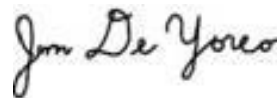
As professional society leaders, we represent the constituencies that will be needed to ensure the Materials Genome Initiative's success: researchers, experimentalists, engineers, and educators, working within national laboratories, universities, and industry. To share knowledge and advance progress within these various realms of expertise, we have established excellence in publishing innovative research results, organizing topical conferences, providing continuing education, and helping shape educational priorities for future scientists and engineers. By virtue of these and other impacts on the scientific and engineering landscape, professional societies stand to be key contributors to future U.S. prosperity and competitiveness through the Material Genome Initiative. We will step forward with the strengths of our collective memberships to foster development of standards and create forums for collaboration and breakthrough to support and advance this effort.

Thank you for your dedication to this essential program, as well as for your acknowledgement of materials science and engineering as keys to competitiveness.

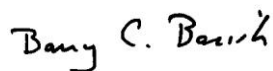
Sincerely yours,



Garry W. Warren
2011 President
The Minerals, Metals & Materials Society (TMS)
president@TMS.org



James DeYoreo
2011 President
Materials Research Society (MRS)
jideyoreo@lbl.gov



Barry C. Barish
2011 President
American Physical Society (APS)
mosley@aps.org

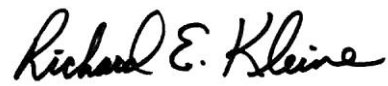


Marina R. Pascucci
2011 President
The American Ceramic Society (ACerS)
mpascucci@ceramics.org

President Barack Obama
August 1, 2011
Page 3



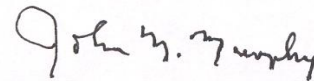
Mark Smith
2011 President
ASM International
mark.smith@asminternational.org



Richard E. Kleine
2011 President
SAE International
rkleine@sae.org



Victoria Rockwell
2011 President
American Society of Mechanical Engineers (ASME)
rockwellv@asme.org



John N. Murphy
2011 President
Society for Mining, Metallurgy and
Exploration, Inc (SME)
smepresident2011@smenet.org



Kathy J. Caldwell
2011 President
American Society for
Civil Engineers (ASCE)
president@asce.org



Anthony J. Vizzini
2011 President
Society for the Advancement of
Material and Process Engineering (SAMPE)
president@sampe.org



Nancy B. Jackson
2011 President
American Chemical Society (ACS)
president@acs.org