

OPENING STATEMENT
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House Committee on Science, Space, and Technology
Subcommittee on Energy
Subcommittee on Research and Technology
“Materials Science: Building the Future”
June 28, 2017

Thank you Chairman Weber and Chairwoman Comstock.

I would like to extend a special welcome to our witnesses and thank them for being here today. This is a subject I find truly fascinating, and I look forward to this opportunity to learn more about the value of federal support for materials science research. I also look forward to hearing your suggestions for how we in Congress can continue to enable progress in this vital field. Materials science is truly interdisciplinary, as it encompasses various aspects of physics, chemistry, engineering, and even biology in some cases.

Given the scientific challenges in advancing this field as well as its widespread potential applications, materials research is frequently and necessarily supported by the combined efforts of government, industry, and academia. To this end, federal agencies such as the Department of Energy’s Office of Science, the National Science Foundation, ARPA-E, the National Institute of Standards and Technology, and DOE’s Advanced Manufacturing Office play a key role by providing the critical funding needed by scientists and engineers in the field.

Every day we see the tangible results of this federal support. Only this month, researchers at the University of Michigan funded by NSF published a report on the development of a new semiconductor alloy that could revolutionize the solar power industry by lowering the costs of solar power dramatically. This new alloy is able to capture the sun’s near-infrared light and is on track to achieve nearly 50% efficiency. Compare that to the less than 30% efficiency we see in traditional solar panels and you will understand why it has been called “magic” by some on the research team.

Simultaneously, Oak Ridge National Laboratory is working with the University of Wisconsin to develop a set of new heat exchangers which can be 3D printed to suit nearly any engineering design. The novel combination of copper fibers and nylon will have profound implications for power plant efficiency. I am certain I speak for all of my colleagues when I say that these scientists truly are a national treasure. It is largely through their efforts that the United States is able to remain a world leader in materials-related technology, and I applaud their dedication.

Finally, I must voice once again my deep dismay at President Trump’s proposed budget cuts to our entire research and development enterprise. Given the examples I just provided, I find it ironic that we are even considering slashing these programs during what the White House is calling “Energy Week.” As much as we might hope otherwise, a broad range of respected non-partisan institutions and experts have concluded that industry alone cannot and will not support

of the majority of the research needed to pursue these long-term, high-risk innovations. Materials science is a field that employs nearly 8,000 Americans, and it would be a serious mistake to jeopardize these research positions and their potential for achieving new breakthroughs. I will continue to strongly support these activities and I encourage my colleagues to do the same.

Thank you, and I yield back.