



## PRESS RELEASE

### CONTACT:

Jenny MacBeth  
Marketing and Communications Coordinator  
Materials Research Society  
724-779-2771  
[macbeth@mrs.org](mailto:macbeth@mrs.org)

### FOR IMMEDIATE RELEASE

#### **Materials Research Society and The Minerals, Metals & Materials Society Announce 2018-2019 Congressional Science and Engineering Fellow**

WARRENDALE, PA – [May 2018] – The Materials Research Society ([MRS](#)) and The Minerals, Metals & Materials Society ([TMS](#)) have selected Michele L. Bustamante, Massachusetts Institute of Technology (MIT), as the 2018-2019 MRS/TMS Congressional Science and Engineering Fellow. Bustamante will serve a one-year term working as a special legislative assistant on the staff of a member of Congress or congressional committee.

Bustamante will begin her fellowship in early September in Washington, DC, starting with an intensive science policy orientation facilitated by the American Association for the Advancement of Science (AAAS) designed to introduce Executive Branch Fellows and Congressional Fellows from more than three dozen scientific societies to the fellowship program. Following orientation, the new Fellow will go through an interview and selection process with offices of senators, representatives or committees on Capitol Hill. Offices will extend offers, and Bustamante will choose the office in which she will spend her fellowship year.

"I'm extremely honored to have been selected as one of this year's Congressional Fellows," said Bustamante. "I look forward to this opportunity to bring my voice as a sustainability scientist and materials researcher to policy discussions with our country's leaders. I hope that by serving as a conduit between the scientific community and Congress, I can do my small part to advocate for more evidence-based decision making with greater benefits for the American people and our planet. My main areas of policy interest are energy and environment, critical and strategic materials, food security, education, and equal rights protection."

The purpose of the Congressional Fellowship program is to bring technical and scientific backgrounds and external perspectives to the decision-making process in Congress. Typically, Fellows conduct legislative or oversight work, assist in Congressional hearings and debates, prepare briefs and write speeches as a part of their daily responsibilities. By applying her strengths in communication, research, and problem-solving to help legislators apply scientific evidence in support of socially responsible policies, Bustamante will help to broaden awareness of the value of scientist- and engineer-government interaction.

Each year, following a formal application process, finalists are interviewed and a Fellow is selected by committees comprised of volunteer members from MRS and TMS. For more information on the selection process, visit the [MRS](#)

[website](#).

### **About Michele L. Bustamante**

Inspired by material science, renewable energy and the environment, Bustamante received a dual BS degree in materials engineering and environmental engineering from Rensselaer Polytechnic Institute in May 2012, and her PhD degree in sustainability from Rochester Institute of Technology in May 2016.

Early in her education, Bustamante secured a National Science Foundation (NSF) summer research internship at the FREEDM Renewable Energy Research Center, where she worked in electrical engineering. Bustamante created a circuit-equivalent model of the Center's rooftop solar photovoltaic array. Leveraging her materials background, she secured another NSF internship at University of South Florida (USF)'s Clean Energy Research Center in 2011. There, she gained experience using thermal and mechanical processing techniques, such as sintering and ball milling, while creating eutectic salt solutions for thermal energy storage in concentrated solar power plants.

Bustamante's graduate work focused on an underdeveloped aspect of risk relating to mining—reliance on byproduct sources of supply—since many advanced solar energy technologies are functionally dependent on scarce, byproduct materials. Her thesis work proposed novel metrics, based on features of projected supply and demand, that would enable quantitative comparisons of the effectiveness of different potential policy responses, such as implementing recycling mandates or penalizing waste to improve recovery. This contribution was recently published in *Environmental Science & Technology* and presented at the 2017 MRS Fall Meeting & Exhibit. Other aspects of her thesis are also published in high-impact journals, such as *Applied Energy*, *Solar Energy Materials and Solar Cells*, and *Journal of Materials*, presented at internationally-attended conferences, including TMS and Photovoltaics Specialists Conferences, and have been cited 50 times since 2014. As a body of work, these contributions enhance the ability to both assess and address materials' criticality that threatens to slow or disrupt the growth of clean energy technologies.

Photo of Bustamante available upon request at [macbeth@mrs.org](mailto:macbeth@mrs.org).

### **About the Materials Research Society**

MRS is an international organization of over 14,200 materials researchers from academia, industry and government, and a recognized leader in promoting the advancement of interdisciplinary materials research and technology to improve the quality of life. MRS Members are engaged and enthusiastic professionals hailing from physics, chemistry, biology, mathematics and engineering—the full spectrum of materials research. Headquartered in Warrendale, Pennsylvania (USA), MRS membership now spans over 90 countries, with more than 46 percent of members residing outside the United States. In addition to its communications and publications portfolio, MRS organizes high-quality scientific meetings, attracting over 12,000 attendees annually and facilitating interactions among a wide range of experts from the cutting edge of the global materials community. MRS is also a recognized leader in education outreach and advocacy for scientific research. More information about the Materials Research Society can be found on its website, [www.mrs.org](http://www.mrs.org).

### **About The Minerals, Metals & Materials Society**

The Minerals, Metals & Materials Society (TMS) is a professional society that connects more than 14,000 minerals, metals, and materials scientists and engineers working in industry, academia, and government positions around the world. TMS creates networking, publication, and professional development opportunities by convening international conferences, publishing books and journals, administering awards, conducting short courses and training, and bringing together the professional community to address issues of common concern. TMS provides leadership in the professional licensing of engineers and in the accreditation of university programs in metallurgical, materials, and similarly named engineering programs, and the Society nurtures the next generation of science and engineering professionals through a strong student membership program in collaboration with three other professional organizations. For more information on TMS, visit [www.tms.org](http://www.tms.org).