



LOUISE M. SLAUGHTER
CONGRESS OF THE UNITED STATES
25TH DISTRICT, NEW YORK

July 9, 2014

Dr. John Prater
Materials Science Division
U.S. Army Research Office
P.O. Box 12211
Research Triangle Park, North Carolina 27709-2211

Dear Dr. Prater,

I write today in support of a proposal submitted by Professor Chunlei Guo to the Army Research Office 2014 BAA to Study Functional Surface Structures on Metals (Proposal No. 66181-MS). Professor Guo is an award winning researcher at the University of Rochester whose work could provide significant advancements in both fundamental science and technological applications in creating new functionalities on metals.

During my time in Congress, I have long supported the development of technologies such as the ones being developed by Professor Guo. His lab, High-Intensity Femtosecond Laser Laboratory, has created a laser surface processing technique that turns shiny metals pitch black. The black metal will be useful whenever light absorption is needed, such as making better sensors, detectors, solar energy collectors, and improving on fuel cell and stealth technologies. Furthermore, the surface processing technique can also turn regular materials into either superhydrophilic or superhydrophobic. The superhydrophilic effect is highly desirable in liquid cooling, microfluidics, and medical analysis; while superhydrophobic effect can protect military vehicles and appliances against corrosion, erosion, icing, and wet chemical and biological contamination.

The work Professor Guo plans to perform with the Army is one of many areas that have a direct impact on both national defense interest and industrial developments. It was a pleasure to meet with Professor Guo and hear about a wide range of interests he has received from many Army Research Centers around the nation on his technologies. The science he intends to address can bring technological advancements and civilian industry benefits to both New York and the nation.

I am proud to support the efforts of Professor Guo, and encourage your full and fair consideration of this competitive proposal.

Sincerely,

A handwritten signature in cursive script that reads "Louise Slaughter".

Louise M. Slaughter
Member of Congress