COLUMBIA UNIVERSITY
IN THE CITY OF NEW YORK

THE FU FOUNDATION SCHOOL OF ENGINEERING AND APPLIED SCIENCE
DEPARTMENT OF CHEMICAL ENGINEERING

The Honorable Lamar Smith
Chairman
House Committee on Science, Space & Technology
2409 Rayburn House Office Building
Washington, D.C. 20515

The Honorable Eddie Bernice Johnson
Ranking Member
House Committee on Science, Space & Technology
2468 Rayburn House Office Building
Washington, D.C. 20515

July 5, 2016

Dear Chairman Smith and Ranking Member Johnson:

I am writing to express my enthusiastic support for the Solar Fuels Innovation Act. This legislation would promote research and development of technology for the production of fuels from sunlight. Developing cost-effective and renewable energy technology that can meet the world's growing energy demands is one of the grand challenges of our time, and the production of so-called "solar fuels" through artificial photosynthesis holds great promise for achieving this important goal while leveraging our nation's existing leadership in the energy and chemical industries.

The sun is a tremendous source of energy that can meet all of our nation's energy needs, but more advanced technology is needed to harness solar energy in a cost-effective and environmentally responsible fashion. Researchers in the field of artificial photosynthesis seek to achieve this goal by converting sunlight and low-energy molecules such as carbon dioxide into storable chemical energy in the form of fuels. While the storability of solar fuels allows this technology to overcome the issue of solar intermittency – the lack of sunlight at night and under cloud cover – the versatility of these fuels ensures that they can be used across the transportation, electric power, industrial, and residential sectors.

The prospect of a "solar fuels" future is truly exciting, but there remains a lot of work to make this future a reality. Increased federal investment in research and development of artificial photosynthesis technology is essential for addressing remaining knowledge gaps in this interdisciplinary field and bringing the technology to the marketplace. The Solar Fuels Innovation Act would provide much needed support for achieving these goals, and would do so by leveraging existing Department of Energy programs and resources to bring together partners across universities, industry, and national labs. Equally important, programs carried out through this act would equip the scientists and engineers of tomorrow with the skills and knowledge to make the United States a world leader in this exciting and transformative technology.

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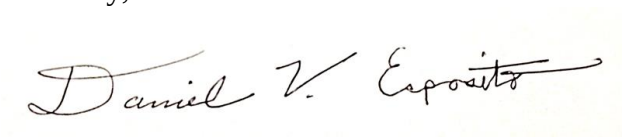
Thank you for your consideration of this important topic and your continued support of fundamental and applied research in the sciences and engineering.

Sincerely,



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