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Former SRI Participant Receives Foresight Award


Fung Suong Ou

Fung Suong Ou, a graduate student who investigated a new method of building nanowires at Rice University, received a prestigious nanotechnology award from the Foresight Nanotech Institute in October at the Productive Nanosystems Conference in Arlington, Virginia. Ou received the Foresight Institute Distinguished Student Prize, an annual award given for the college undergraduate or graduate student whose work in nanotechnology is deemed most notable. He received the award for his work on hybrid nanowires that he pioneered.

"The research experience I had at the Environmental Molecular Sciences Laboratory helped me a lot and is certainly one of the main factors that made such an award possible," said Ou.

Ou conducted nanotechnology research while attending Pacific Northwest National Laboratory's Summer Research Institute for Interfacial and Condensed Phase Chemical Physics. At the Institute, he was mentored by EMSL researcher Lax Saraf and Don Baer, EMSL Lead Scientist for Interfacial Catalysis.

While at the U.S. Department of Energy's EMSL, a national scientific user facility at PNNL, Ou worked to define and control the porosity of silicon. Together with Saraf and Baer, Ou optimized the etch current parameters during the electrochemical etching process. With these optimized currents and by using lithographically created systematic arrays of defects on the surface of silicon, the team showed that hydrogen bubbles created during the electrochemical reaction can be effectively used to control the pore density as well as possible location.

"The opportunity to work at EMSL was very valuable. Such an exposure to world-class research at EMSL in the early stage of my career taught me a lot about how good works can be achieved," said Ou. "But more important than the instrumentation was the expert guidance and support I received from my mentors, Dr. Saraf and Dr. Baer. Working with them inspired me, and it helped me to develop my passion for science and research."

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