Professor Jenny Yang part of new grant to remove CO2 from ocean water

The grant will help fund the development of new carbon-capturing technology for use in desalination plants.

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The work ahead will see Professor Jenny Yang of the UC Irvine Department of Chemistry and her lab delve into what is in many ways a new field of research.

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Professor Jenny Yang of the UC Irvine Department of Chemistry is part of a team of collaborators that recently received a $1,403,802 grant from the National Oceanic

and Atmospheric Administration (NOAA) and the Office of Naval Research (ONR) to stimulate research into the creation of new membrane materials that combine carbon dioxide removal from ocean water with desalination. It’s one of the first research efforts aimed at incorporating carbon removal technology with desalination, and, according to Yang, it grew out of seed funding for high-risk exploratory research provided by the Research Corporation to Yang’s group in 2021. “We’re designing new molecules to do this chemistry,” said Yang. “We have preliminary data based on the seed funding.” The work requires collaboration with scientists from disparate fields, explained Yang, including experts in modeling and membrane technology like Professor Katherine Hornbostel at the University of Pittsburg, Professor Matthew Green at Arizona State University, and Dr. Abhishek Roy and Dr. Mou Paul at the National Renewable Energy Laboratory (NREL).

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