UC SANTA BARBARA

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Sonia Fernandez

Life Lessons

The challenges chemistry professor Thuc-Quyen Nguyen faced as a child in a small village in Vietnam — how to start and fire for cooking and then keep it going, how to help keep her family fed and comfortable without electricity, running water or a stove — prepared her for what essentially are the same kinds of problems she continues to solve today, albeit more high-tech. Now it's about how to harness, save and manipulate energy for the various machines we use as we move through our modern lives. Where she once started with fire, she is now working with the Sun to generate electricity, via organic solar cells.

So renowned is Nguyen's expertise that her research is highlighted in the journal Advanced Materials 2019 Hall of Fame. This online series of articles captures the best and newest of materials science to date. Oganic solar cells and their steady progress toward greater performance, efficiency and lifetimes, are due in large part to innovations and discoveries in the kind of materials, processing, engineering and device physics at the heart of Nguyen's research, and that of scientists like her.

Aside from problem-solving, Nguyen, who directs the campus's Center for Polymers and Organic Solids (CPOS), is particularly interested in helping students navigate their early academic careers, and mentoring young scientists — especially females — which reflects another quality she retains from her childhood. As a fourth-generation educator, she credits her mother, who was a math teacher, with inspiring her love of helping students and colleagues alike learn and make new connections about the world around them.

The Hall of Fame highlight can be found here:
https://www.advancedsciencenews.com/hall-of-fame-highlight-thuc-quyen-nguyen/

The Nguyen Group's insights into solution-processed semitransparent organic solar cells are available here:
https://onlinelibrary.wiley.com/doi/10.1002/adma.201900904

About UC Santa Barbara

The University of California, Santa Barbara is a leading research institution that also provides a comprehensive liberal arts learning experience. Our academic community of faculty, students, and staff is characterized by a culture of interdisciplinary collaboration that is responsive to the needs of our multicultural and global society. All of this takes place within a living and learning environment like no other, as we draw inspiration from the beauty and resources of our extraordinary location at the edge of the Pacific Ocean.