Liyang Wan receives UC-National Lab In-Residence fellowship

The fellowship will fund Wan’s research at Lawrence Livermore National Laboratory.
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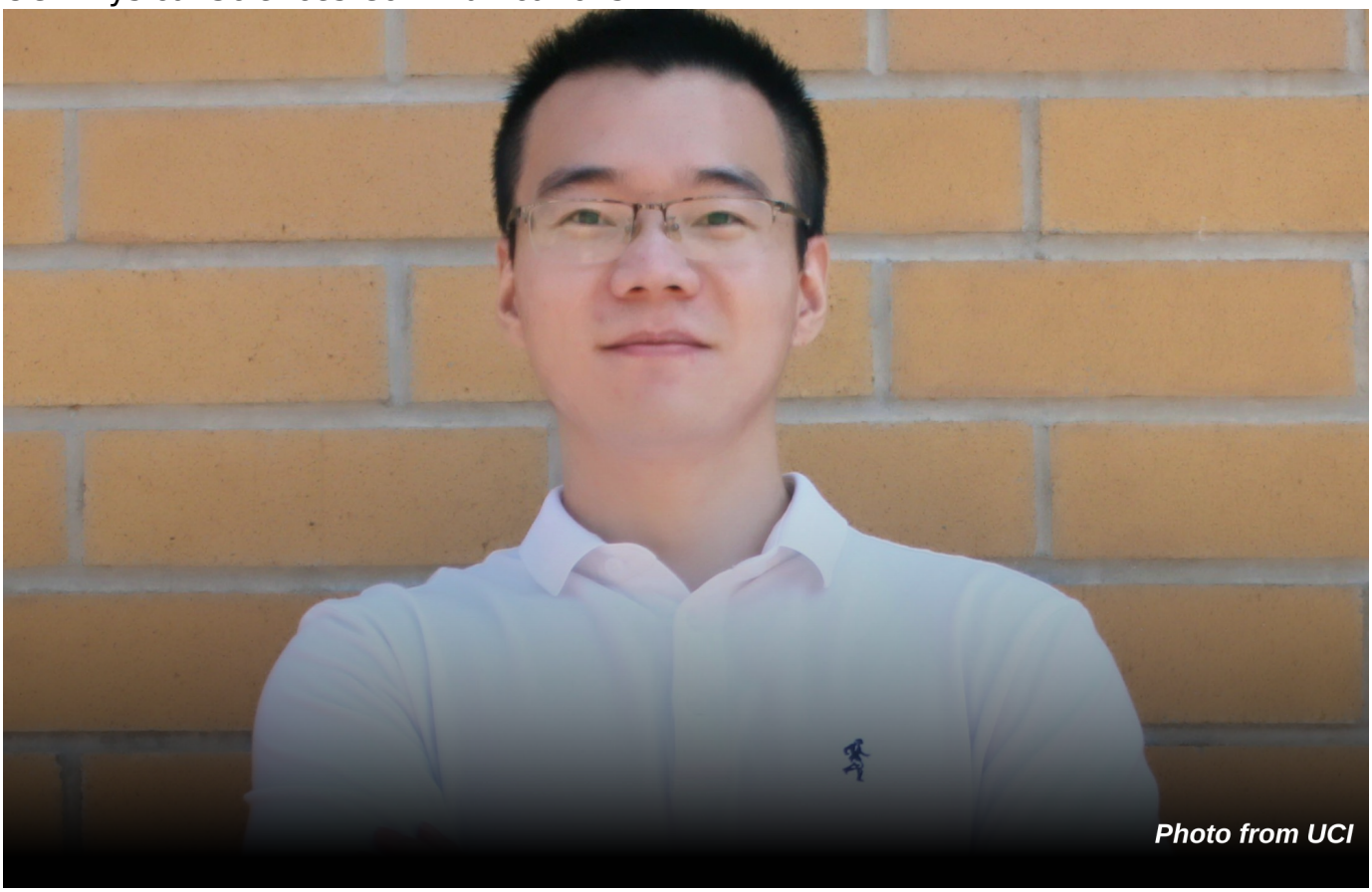
UCI Physical Sciences Communications



Liyang Wan's research is helping push lithium battery technology to a new level.

Liyang Wan, a Ph.D. student in the lab of Professor Huolin Xin in the UC Irvine Department of Physics & Astronomy, recently received a UC-National Lab In-Residence fellowship. The fellowship will give Wan $248,000 over the next three years to do research on lithium-metal batteries at Lawrence Livermore National Laboratory (LLNL). “I am currently engaged in the characterization of complex alloys using transmission electron microscopy, and my research will involve the

development of ultra-thin, solid-polymer electrolytes using a 3D printing approach developed at LLNL in order to address the high power demand and safety issues of solid-state, lithium-metal batteries," said Wan. "3D printing is completely new to me, but I am excited about embracing these new challenges and working with my LLNL lab mentor." The work, which involves the creation of a solid polymer "buffer zone" that may extend the lifespan of lithium-metal batteries from 150 hours to over 500 hours, will see Wan travel regularly between UCI and LLNL as well as to conferences to present his research.

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