2023 Intellectual Merit

DMR-2225967

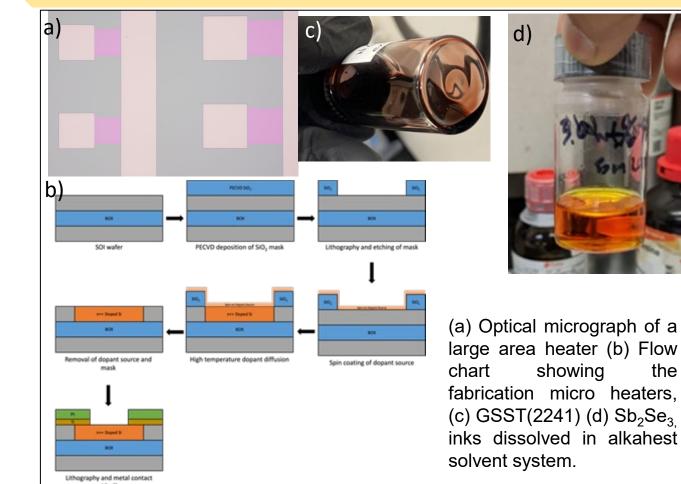
Combinatorial solution processing of optical phase change materials

Aim: Inkjet printing of solutions for optical

applications

- 1. Solution Processing of PCM alloys
 - PCM alloys (Sb₂Se₃ and GSST) were dissolved in an alkahest solvent system of amine and dithiol.
 - The rate of solvent drying and its impact on different substrates was studied.
- 2. On-chip micro heater fabrication and characterization.
 - On chip microheater arrays were fabricated at MIT nano.

Kathleen A. Cerqua-Richardson, The University of Central Florida Board of Trustees

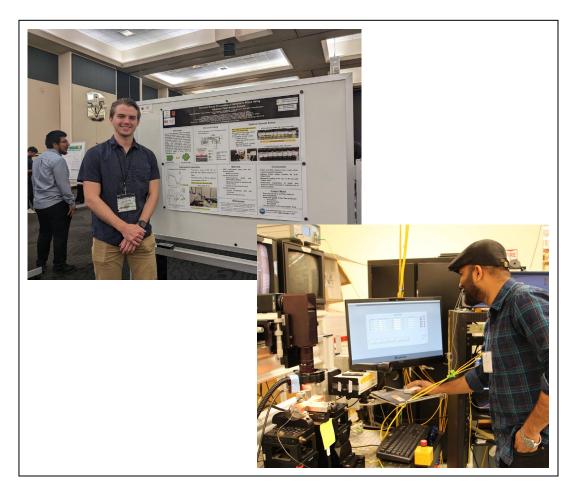




Combinatorial solution processing of optical phase change materials

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- An environment designed to inspire and involve undergraduate students in the interdisciplinary research with a focus on material science.
- Top image shows undergraduate Daniel Wiedeman presenting his work at the UG Research Symposium at UCF in 2022.
- Bottom image shows an MIT hands-on bootcamp participant operating the optical testing station in Hu's lab.





Where Materials Begin and Society Benefits