

## **Kenneth Goodson-Stanford University**





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## POETS by the numbers:

4 Universities - University of Illinois at Urbana-Champaign (lead), Howard University, Stanford University, University of Arkansas

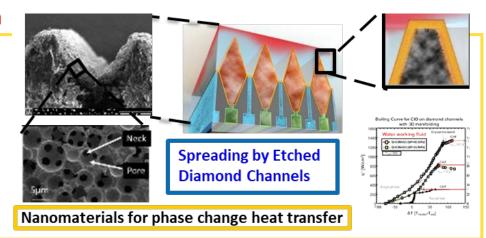
- 31 Faculty
- 107 Student Researchers
- 38 Ph.D., 29 M.S., 9 B.S. Degrees Granted to date
- 35 Graduates working in industry to date
- 229 POETS publications
- 64 Technical Reports
- 3 Testbeds Aerospace, Off-Highway, On-Highway
- 3 Full patents
- 3M+ in Associated Project Funding (2020-2021)

## **Recent POETS Projects**

- Development of a High Performance  $\mu$ -cooler (0.01 cm<sup>2</sup> °C/W at 1 kW/cm<sup>2</sup>) with Minimal Packaging Process Overhead
- Capillary-Driven Boiling Heat Transfer on Hybrid Copper Wiremesh and "Graded" μ-porous Copper Inverse Opals (CIOs) Wicks

## **POETS & Related Research**

Development of Nanomaterials for high performance μ-coolers using silicon pin fins and copper inverse Opals (CIOs). Ph.D. students: Qianying Wu and Sougata Hazra, Dr. Chi Zhang (postdoc) and Adjunct Prof. Mehdi Asheghi (Stanford University) and Prof. Paul Braun (UIUC).



Capillary-Driven Boiling Heat Transfer on Hybrid Copper Wiremesh and μ-porous (CIOs) Wicks. Student: Farid Soroush, Adjunct Prof. Mehdi Asheghi (Stanford University), Prof. Nenad Miljkovic (UIUC) & Prof. Paul Braun (UIUC).

