

IGNITE DIRECTOR'S AWARDS



Adam Uliana

ChemFinity Technologies – Brooklyn, NY

Adam Uliana is the Co-Founder and CEO of ChemFinity Technologies, a startup in Brooklyn, NY, that spun out of University of California, Berkeley in 2022. Uliana is developing new processes to recycle critical minerals by leveraging ChemFinity's porous sorbent material technology. The approach selectively recovers many critical minerals from wastes, including e-waste, spent catalytic converters, and other sources.

Project: Tunable Porous Polymer Networks with Unprecedented Efficiency in Recovering Critical Metals – Award Amount: \$250,000



Sebastian Kube

University of Wisconsin–Madison – Madison, WI

Sebastian Kube is an Assistant Professor in materials science and engineering at the University of Wisconsin–Madison. The objective of Kube's project is to build an autonomous laboratory platform, "AlloyBot," which will develop new structural alloys for energy and propulsion technologies. AlloyBot will synthesize and test 100 new alloy compositions per week with minimal human assistance.

Project: AlloyBot: Autonomous Platform to Develop Alloys for Energy and Propulsion Technologies 100x Faster – Award Amount: \$250,000



Woongkul (Matt) Lee

Michigan State University – East Lansing, MI

Woongkul Lee is an Assistant Professor in electrical and computer engineering at Michigan State University. The objective of Lee's research is to develop an optically powered ultra-high-speed wound-field synchronous generator for uncrewed aircraft. The generator will be integrated with an optical encoder for position estimation to maximize its power density, reliability, and power handling capability.

Project: Optically Powered Ultra-high-Speed (OPUS) Wound-Field Synchronous Generators – Award Amount: \$250,000



Jun Wang

University of Nebraska-Lincoln – Lincoln, NE

Jun Wang is an Assistant Professor in electrical and computer engineering at the University of Nebraska-Lincoln. Wang is developing solutions to enhance power grid resilience through a first-of-its-kind 10-kilovolt high-frequency press-pack silicon-carbide MOSFET module. The module will have 30 times faster switching frequency and 5 times higher power density than the state of the art.

Project: Multicell Electrical-Transient-Accelerated Press-Pack Modules (METAPAK) – Award Amount: \$250,000