



Department of Energy

SUPPORTING U-M RESEARCH AND SCHOLARSHIP



\$42 MILLION

Research Supported by
DoE in FY21

The Department of Energy partners with researchers across U-M to ensure America's security and prosperity by addressing energy, environmental and nuclear challenges through transformative science and technology solutions.



Mimicking Nature For Clean Energy Production

With funding from the DoE, U-M researchers are developing technologies to improve the efficiency of how we convert organic solid waste from trash and wastewater into methane. Cattle are supremely efficient at digesting tough materials, and a proposed energy-production system based, in part, on cow stomachs could generate 40% more power from municipal waste streams, at a 20% reduced cost.



Creating Extremely Durable Concrete Infused With Carbon Dioxide

U-M researchers funded by the DoE are working to design the next generation of concrete. Current cement production and utilization methods pose significant energy and emissions challenges. The Low Carbon Built Environment Center at U-M is working to use carbon dioxide as a resource -- capturing it, mineralizing it, and incorporating it into the composition and structural use of a new, engineered cementitious composite concrete.



Using AI to Lower the Cost of Power Generation

Through a DoE grant, U-M researchers will develop and test artificial intelligence tools to advance autonomous, efficient, and low-cost operations and maintenance processes for advanced reactor power plants. The research will improve U.S. energy security by demonstrating how AI innovations can be used to aid and optimize nuclear plant design, optimize sensor location, provide autonomous control, and allow for predictive maintenance.



276

Active Projects
Supported by DoE



268

Faculty, Postdocs and
Grad Students Supported
Annually by DoE

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