

# **Department of Energy**

SUPPORTING U-M RESEARCH AND SCHOLARSHIP





### \$39 MILLION

Research Supported by DoE in FY20



276

Active Projects
Supported by DoE



268

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

## Detecting and Deterring Nuclear Proliferation

Supported by a \$25 million grant from the DoE National Nuclear Security Administration, the U-M-led Consortium for Monitoring, Technology and Verification provides research and development for treaty-compliance monitoring. With this grant, the consortium will produce new instruments and methods for nuclear nonproliferation, safeguards and arms control treaty verification.



#### **Next Generation Photovoltaics**

DOE funding is supporting U-M researchers to advance the practical viability of organic photovoltaics, improving the way solar energy is collected. By working with organic photovoltaics, this research aims to convert the sun's energy into electricity with very inexpensive materials. This could result in a transition from heavy, fragile and expensive solar panels to printable rolls of adhesive solar tape.



### **Improving Energy Development**

The DIFFERENTIATE program, supported by DOE, incorporates artificial intelligence and machine learning into the power converter development process. Instead of creating a new power converter design for a device, machine learning could take specified inputs to design the power converter. This technology would save time and money in energy development, benefiting consumer electronic startups that previously could not afford to develop their own power converters.



