

Investing in the Future of Science and Technology *for the Nation and the World*

LDRD funds forward-thinking, leading edge, potentially high-payoff projects in all national-security areas — energy, environment, homeland, nuclear, and defense.

By investing today, LDRD ensures that Sandia will meet the challenges of the future.

LDRD PROJECTS

- Nurture the Laboratories' core competencies and the expertise of its staff
- Support all of Sandia's national-security missions
- Attract the highest-quality new staff and university and industrial partnerships
- Return over 60% of the Laboratories' R&D100 Awards and over 30% of its patents
- Produce breakthrough S&T revolutionizing fields such as laser technology, radar imaging, and nanoscale self-assembly

LDRD Sunshine to Petrol initiative will use concentrated solar-thermal energy to synthesize transportation fuels from carbon dioxide.

Collaborative Science • Innovative Technical Solutions • Building a Vital Workforce



LDRD-developed pre-concentrators are critical to this explosive-detection portal.



LDRD-driven Fiber-laser Amplifier technology has enabled high-power output for fiber lasers, which are ten-times more efficient than conventional lasers.



Synthetic Aperture Radar (SAR) images through clouds is carried as a 30-pound package aboard unmanned aerial vehicles (UAVs) (This SAR image of Washington, DC).



Sandia chemists are developing many types of self-assembling coatings, some showing "super-hydrophobic" qualities, similar to the rejection of these water droplets by the surface of the lotus leaf.