



Natural Science Graduate Student Career Opportunities at Sandia National Laboratories

Albuquerque, New Mexico



**“Exceptional
Service in the
National
Interest”**

Livermore, California



**Information Session
University of Texas at Austin
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www.sandia.gov

Sandia National Laboratories is a multi-program laboratory managed and operated by Sandia Corporation, a wholly owned subsidiary of Lockheed Martin Corporation, for the U.S. Department of Energy's National Nuclear Security Administration under contract DE-AC04-94AL85000.

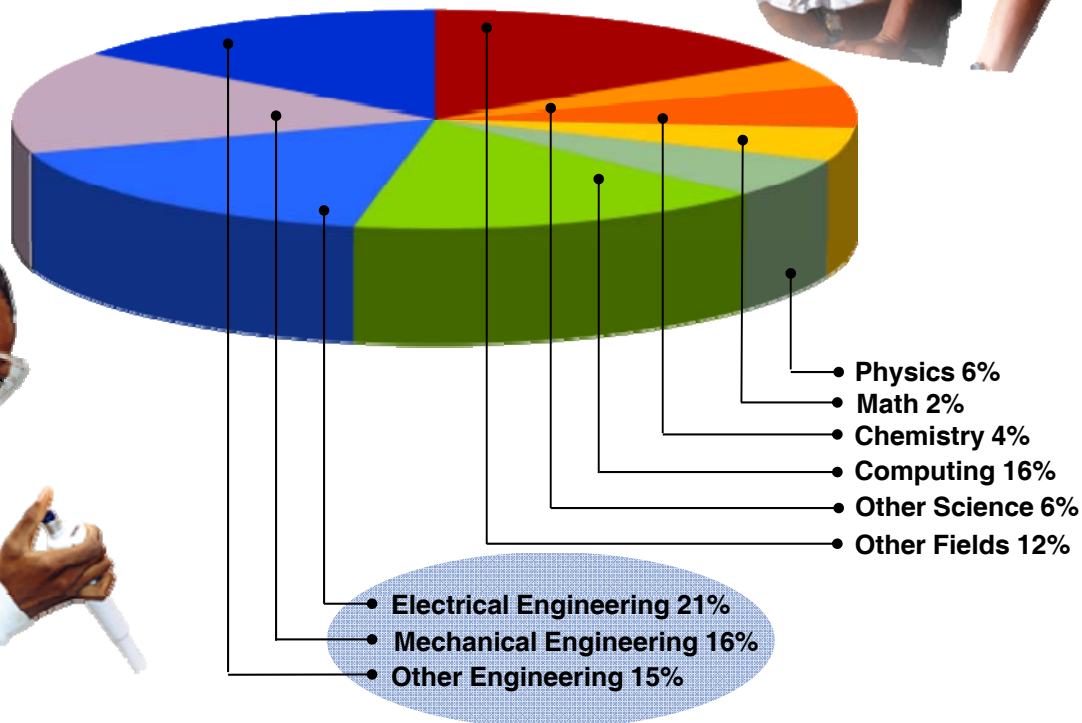




Sandia's People

- On-site workforce: 11,677
- FY10 permanent workforce: 8,607
- FY10 gross payroll: \$898.7M
- FY10 budget: \$2.3B

Technical Staff (4,277) by Degree (End of FY10)





Sandia's Primary R&D Organizations

Activities involving Natural Sciences

- Chemistry
- Physics
- Mathematics
- Biological
- Geological

1000 Science & Technology and Research Foundations	2000 Weapons Engr & Product Realization	5000 Defense Systems & Assessments	6000 Energy, Nonproliferation & High Consequence Security	8000 California Laboratory
1100 Physical, Chemical & Nano Sciences	2100 NM Wpns Systems Engineering	5200 Defense Systems, Plans & Strategy	6100 Energy Tech & Systems Solns	8100 Homeland Scty & Defense Systems
1200 Nuclear Wpns S&T	2200 ST&E Strategy	5300 Electronic System	6200 Energy Systems	8200 CA Wpns Sys
1300 Radiation Science	2300 N Info Assurance	5400 Integrated Mil Sys	6500 Wpn & FP	8300 Trans Energy
1400 Computing Research	2500 Energetic Comp Realization	5500 Systems Msn Engineering	6600 Critical Asset Protection	8500 Site Opns
1500 Engineering Sciences	2600 Engr Design & Integration	5600 Info Systems & Analysis	6800 Nonproliferation & Cooperative TR	8600 Biological & Materials Science
1600 Pulsed Power Sciences	2700 Responsive NG Product Devel	5700 Monitoring Systems	6900 Geoscience Climate & Conseq	8900 Computer Science & Info Systems
1700 Microsystems S&T and Components	2800 NW Product Engr Program	5900 System Research		
1800 Materials Science & Engineering	2900 Stockpile Resource			
1900 ST&E Innovations & Partnerships				



Some Activities involving Natural Sciences

Chemistry

Materials
Interfacial Science
Chem dynamics/kinetics
Combustion/Flames
Chem imaging, M&S
Nanotechnology
Geochemistry
Chem/Bio analysis
Biochemistry
Synthetic chem
Reaction processes

Physics

Materials
Nanotechnology
Lasers & optics
Remote sensing
High energy density physics
Plasma & shockwave physics
Solid-state physics
Quantum computing
Radiation & surface physics
High-performance computing

Biological Sciences

Biofuels
Biochemistry
Computational biology
Medical diagnostics
Photosynthesis
Proteins
Pathogen studies
Therapeutics

Geological Sciences

Energy production, storage & security
Carbon capture, reuse and sequestration
Geotechnical analysis
Geothermal
Resource exploration, extraction, development
Hazardous waste storage & treatment
Monitoring

Mathematics

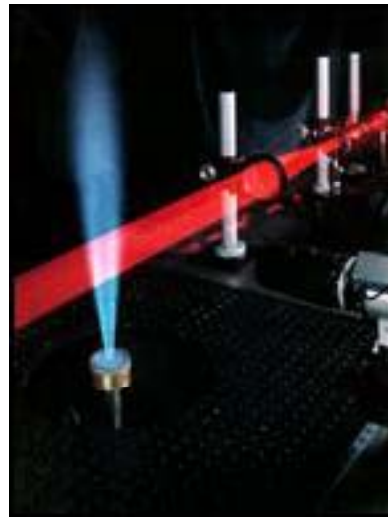
Computation science
High-performance computing
Algorithms for M&S
Statistics



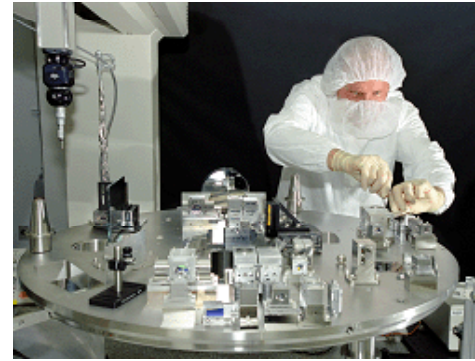
Some Activities Involving Natural Sciences



Nuclear Waste Management



Energy Research



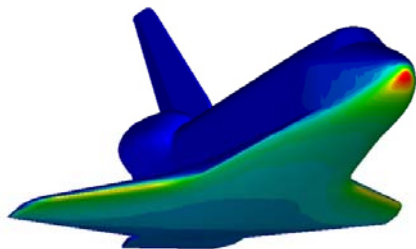
Extreme Ultraviolet Lithography



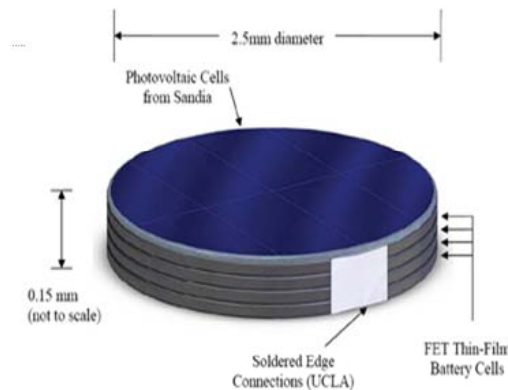
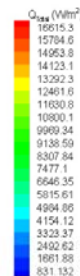
Microelectronics And Photonics



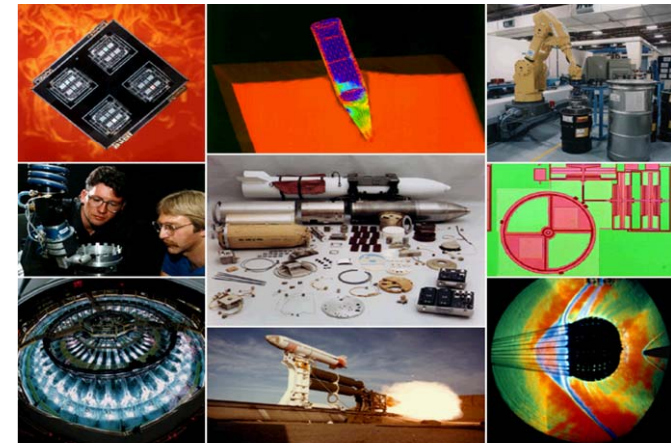
Materials and Processes



Investigation & Certification



Power Sources

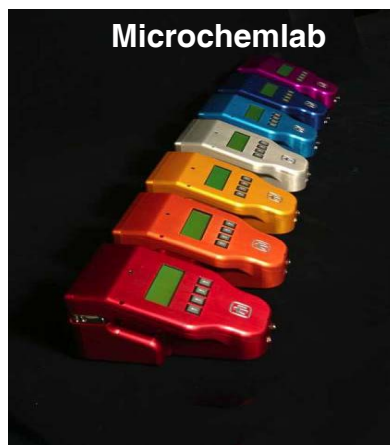


Responsible for R&D of >90% of the nuclear weapon components

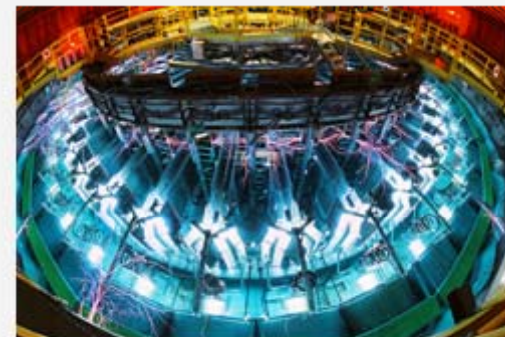
Some Activities Involving Natural Sciences



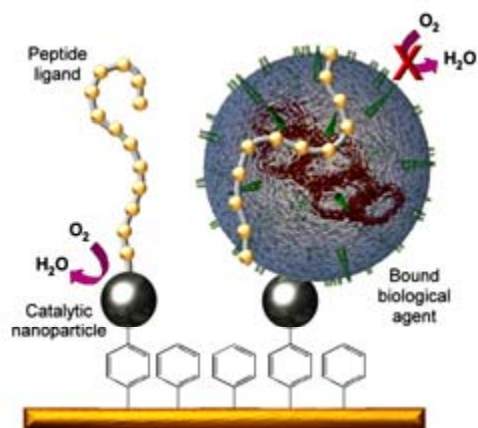
Biosensors



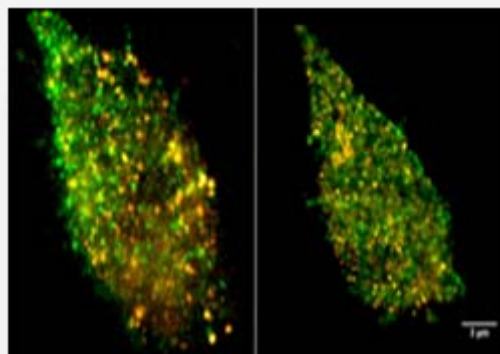
Micro ChemLab



Pulsed Power



Electrochemical Biosensors



Cell Biology



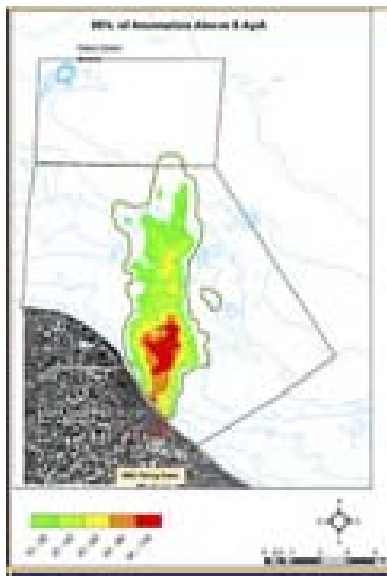
Bio Fuels



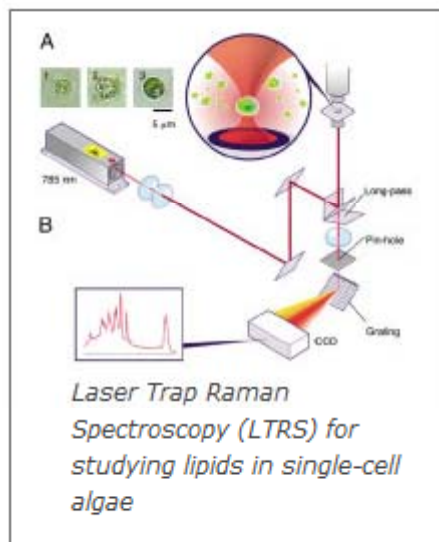
Some Activities Involving Natural Sciences



Remote sensing of greenhouse gases

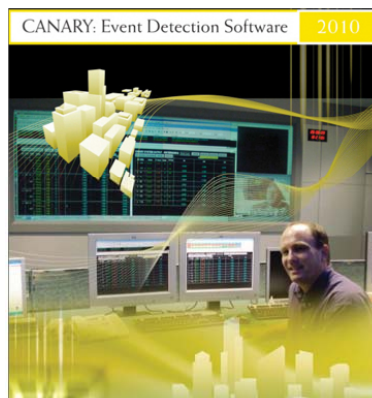


Fluid Dynamics

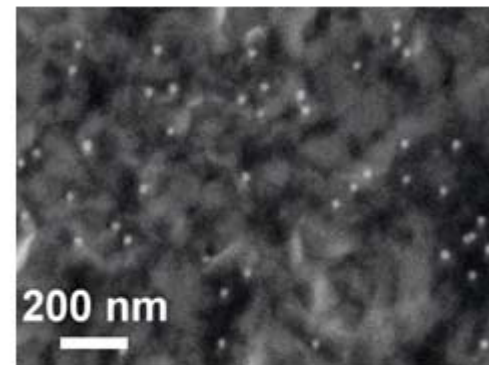


Laser Trap Raman Spectroscopy (LTRS) for studying lipids in single-cell algae

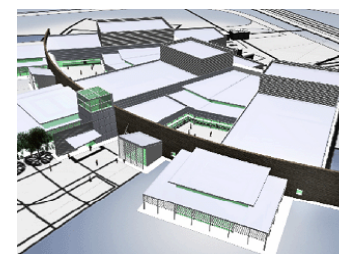
Algae Biomass for Fuels



Modeling & Simulations



Nanoscience



Center for Integrated Nanotechnologies (CINT)



Decontamination Foam