# NTIS Technical Reports Newsletter

## Purpose
To bring you a sampling of the latest documents added to the NTIS Database and to help you gain a greater understanding of the wealth of scitech information available from the National Technical Information Service.

### Director:
Bruce Borzino

### Associate Director for Product Management & Acquisition:
Don Hagen

### Manager, Cataloging/Indexing Division:
Sue Feindt

### Contributing Program Manager:
Christie Langone

### Technical Information Specialist:
Anne Harrison

### Editor and Design Direction:
Linda Davis

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### Category 47 Ocean Sciences & Technology

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U.S. Department of Commerce

5301 Shawnee Road

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## Category 47 Ocean Sciences & Technology

| PB2009113741 | Northern Gulf of Mexico Continental Slope Habitats and Benthic Ecology Study. Texas Engineering Experiment Station, College Station. 2009, 417p Related Categories/Sub-categories: 57H (Ecology) |
| PB2010103314 | Science at Sea: Meeting Future Oceanographic Goals with a Robust Academic Research Fleet. National Academy of Sciences-National Research Council. 2009, 120p Related Categories/Sub-categories: 55C (Meteorological Data Collection, Analysis, & Weather Forecasting) 68 (Environmental Pollution & Control) |

### Major Subject Categories

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* For a listing of Scope Notes that defines the specific topical content for each category, go to [http://www.ntis.gov/assets/pdf/scopenames.pdf](http://www.ntis.gov/assets/pdf/scopenames.pdf)

** Quantities represent each new report assigned on average to 3-5 categories.
Category 99 Chemistry

ADA499532
Characterization of Reaerosolization From Impingers in an Effort to Improve Airborne Virus Sampling.
2009, 35p
Related Categories/Sub-categories: 57K (Microbiology) 74D (Chemical, Biological, & Radiological Warfare)

ADA499711
Integrated Semiconductor-based Diagnostics System for Multiplexed Genomic Amplification and Electrochemical Detection of Biothreat Agents.
Combimatrix Corp Mukilteo WA.
2009, 85p
Related Categories/Sub-categories: 57K (Microbiology) 63F (Optical Detection) 74D (Chemical, Biological, & Radiological Warfare)

ADA500388
New Paradigm in Modeling and Simulations of Complex Oxidation Chemistry Using a Statistical Approach.
California Institute of Technology, Pasadena.
2009, 66p
Related Categories/Sub-categories: 72F (Statistical Analysis)

ADA501277
Computational Design Tool for the Synthesis and Optimization of Gel Formulations (SOGeF).
CFD Research Corp., Huntsville, AL.
2009, 102p
Related Categories/Sub-categories: 79A (Ammunition, Explosives, & Pyrotechnics)

ADA502402
Eigendeformation-Based Homogenization of Concrete.
Rensselaer Polytechnic Inst., Troy, NY.
2009, 31p
Related Categories/Sub-categories: 46E (Structural Mechanics)

ADA502557
Thermo-Mechanical Characterization of Silicon Carbide-Silicon Carbide Composites at Elevated Temperatures Using a Unique Combustion Facility.
Air Force Institute of Technology, Wright-Patterson Air Force Base, OH.
2009, 344p
AFIT/DS/ENY/09-S01
Related Categories/Sub-categories: 46E (Structural Mechanics) 81A (Combustion & Ignition)

ADA502599
Air Force Institute of Tech., Wright-Patterson Air Force Base, OH.
2009, 153p
AFIT/GEM/ENV/09-M04
Related Categories/Sub-categories: 46C (Optics & Lasers) 71N (Nonferrous Metals & Alloys)

ADA504989
Massachusetts Institute of Technology, Cambridge.
2009, 227p
MIT/WHOI-2009-10
Related Categories/Sub-categories: 46G (Plasma Physics) 71I (Fibers & Textiles)

ADA505310
Altitude Chamber Testing of the Passenger Oxygen System (POS).
Air Force Research Laboratory, Brooks Air Force Base, TX.
2009, 233p
AFRL-RH-BR-TR-2009-0047
Related Categories/Sub-categories: 94K (Laboratory & Test Facility Design & Operation) 95E (Life Support Systems)

ADA508953
Mechanistic Investigations of Branched Macromolecules and Metal Nanocomposites for Nonlinear Optical Applications.
Michigan University, Ann Arbor, MI.
2009, 29p
Related Categories/Sub-categories: 46C (Optics & Lasers) 97Q (Selected Studies In Nuclear Technology)

DE2009951312
Study of Turbulent Fluctuations Driven by the Electron Temperature Gradient in the National Spherical Torus Experiment.
Department of Energy, Washington, DC.
2009, 40p
PPPL-4395
Related Categories/Sub-categories: 46G (Plasma Physics) 97B (Energy Use, Supply, & Demand) 97G (Policies, Regulations & Studies) 97R (Environmental Studies)

DE2009952083
Department of Energy.
2009, 32p
Related Categories/Sub-categories: 77A (Thermoneutral Fusion Devices) 77G (Radioactive Wastes & Radioactivity) 97B (Energy Use, Supply, & Demand) 97G (Policies, Regulations & Studies) 97R (Environmental Studies)

Subject Category Codes/Classification
NTIS classifies citations into 39 subject categories. Each of these subject categories is divided into subcategories. This method provides sorting categories for both hard and soft sciences. All subject categories consist of three character codes: two numerics and one alpha character. The numeric codes represent entire categories, the alpha codes are used to designate subcategories within these broad categories. The number of NTIS subcategories posted to an information product average from one to five, although there are some reports with more.

Key to Database Fields Used
The following NTIS database fields are used in this short listing of recently acquired technical reports.

NTIS Order Number
Title
Report Year, Page Count
Source
Report Number/ISBN13 (if available)
Related Categories/Sub-categories (where the document is also indexed)
Category 99 Chemistry

DE2009952162
Summary Report: Direct Approaches for Recycling Carbon Dioxide into Synthetic Fuel.
Department of Energy.
2009, 41p
SAND2009-0399
Related Categories/Sub-categories:
97F (Fuel Conversion Processes)
97K (Fuels)

DE2009957533
Degradation in Solid Oxide Cells During High Temperature Electrolysis.
Department of Energy.
2009, 62p
INL/EXT-09-15617
Related Categories/Sub-categories:
97F (Fuel Conversion Processes)
97K (Fuels)
97O (Miscellaneous Energy Conversion & Storage)

DE2009958564
Development of the Write Process for Pipeline-Ready Heavy Oil.
Department of Energy.
2009, 97p
Related Categories/Sub-categories:
97F (Fuel Conversion Processes)
97K (Fuels)

DE2009962851
Techno-economic Analysis for the Thermochemical Conversion of Lignocellulosic Biomass to Ethanol via Acetic Acid Synthesis.
Department of Energy.
2009, 79p
PNINL-18483
Related Categories/Sub-categories:
97F (Fuel Conversion Processes)
97K (Fuels)

N20090027845
NASA Goddard Space Flight Center.
2009, 30p
Related Categories/Sub-categories:
411 (Job Environment)
57U (Public Health & Industrial Medicine)
84 (Space Technology)

PB2009111507
Development of an Improved VOC Analysis Method for Architectural Coatings.
California Environmental Protection Agency.
2009, 112p
Related Categories/Sub-categories:
68A (Air Pollution & Control)
71E (Coatings, Colorants, & Finishes)

PB2009111522
Particle Phase Peroxides: Concentrations, Sources, and Behavior.
California Environmental Protection Agency.
2009, 96p
Related Categories/Sub-categories:
57E (Clinical Medicine)
57A (Air Pollution & Control)
68G (Environmental Health & Safety)

PB2009111524
Harbor Community Monitoring Study (HCMS) Saturation Monitoring.
California Environmental Protection Agency.
2009, 168p
Related Categories/Sub-categories:
57U (Public Health & Industrial Medicine)
57Y (Toxicology)
68A (Air Pollution & Control)
68G (Environmental Health & Safety)

PB2009113615
Geological Survey, Reston, VA.
2009, 34p
USGS-SIR-2009-5012
Related Categories/Sub-categories:
57P (Pest Control)
57Y (Toxicology)
68D (Water Pollution & Control)

PB2009113740
National Institute for Occupational Safety and Health.
2009, 118p
DHHS/PUB/NIOSH-2009-152
Related Categories/Sub-categories:
44G (Environmental & Occupational Factors)
57U (Public Health & Industrial Medicine)
57Y (Toxicology)
68G (Environmental Health & Safety)

PB2009113935
Manure Use for Fertilizer and for Energy. Report to Congress.
Economic Research Service.
2009, 53p
Related Categories/Sub-categories:
97K (Fuels)
98A (Agricultural Chemistry)

PB2009114000
Detection of Delaminations of FRP Retrofitted Reinforced Concrete Columns.
Department of Transportation.
2009, 54p
TNW-2009-08
Related Categories/Sub-categories:
50C (Construction Equipment, Materials, & Supplies)
71F (Composite Materials)

PB2010100838
Guidelines for Safe Use of Gaseous Halocarbon Extinguishing Agents in Aircraft.
Federal Aviation Administration.
2009, 71p
Related Categories/Sub-categories:
51C (Aircraft)
57Y (Toxicology)

PB2010101607
Assessment of the National Institute of Standards and Technology Center for Nanoscale Science and Technology, Fiscal Year 2009.
National Institute of Standards and Technology.
2009, 30p
Related Categories/Sub-categories:
46 (Physics)
70E (Research Program Administration & Technology Transfer)
94K (Laboratory & Test Facility Design & Operation)

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Category 99  Chemistry

PB2010101610
Assessment of the National Institute of Standards and Technology Chemical Science and Technology Laboratory, Fiscal Year 2009.
National Research Council.
2009, 50p
Related Categories/Sub-categories:
57B (Biochemistry)

PB2010102590
Final Contaminant Candidate List 3 Chemicals: Classification of the PCCL to CCL.
Environmental Protection Agency.
2009, 121p
EPA/815-09/008
Related Categories/Sub-categories:
57U (Public Health & Industrial Medicine)
68D (Water Pollution & Control)

PB2010102643
Contaminant Information Sheets for the Final CCL 3 Chemicals.
Environmental Protection Agency
2009, 216p
EPA/815/R-09/012
Related Categories/Sub-categories:
57U (Public Health & Industrial Medicine)
68D (Water Pollution & Control)

PB2010102644
Contaminant Information Sheets for the PCCL Chemicals Considered for CCL 3.
Environmental Protection Agency.
2009, 112p
EPA/815/R-09/014
Related Categories/Sub-categories:
57U (Public Health & Industrial Medicine)
68D (Water Pollution & Control)

PB2010102876
Frontiers in Crystalline Matter From Discovery to Technology.
National Research Council, Washington, DC.
2009, 192p
EPA/815/R-09/014
Related Categories/Sub-categories:
46D (Solid State Physics)

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