



Alternative Energy Sources

PB2011106887
Guide to Community Solar: Utility, Private, and Non-Profit Project Development
Department of Energy, Washington, DC.
Office of Energy Efficiency and Renewable Energy. 2011, 56p
DOE/GO-102011-3189

Related Categories/Sub-Categories:
43F (Environment)
89B (Architectural Design & Environmental Engineering)
91A (Environmental Management & Planning)
97J (Heating & Cooling Systems)
97N (Solar Energy)

Keywords: Renewable energy, Solar energy, Community solar project models.

PB2011106899
Methanol as an Alternative Transportation Fuel in the U.S.: Options for Sustainable and/or Energy-Secure Transportation.
Massachusetts Inst. of Tech., Cambridge. Sloan Automotive Lab. Battelle Columbus Div., OH. 2010, 78p

Related Categories/Sub-Categories:
85H (Road Transportation)
97K (Fuels)

Keywords: Transportation fuels, Methanol, Energy secure transportation.

PB2011106665
Solar Powering Your Community: A Guide for Local Governments. Second Edition.

Department of Energy, Washington, DC. Office of Energy Efficiency and Renewable Energy. 2011, 172p

See also DE2009-962023, first edition 2009.

Related Categories/Sub-Categories:
43E (Energy)
91J (Economic Studies)
97G (Policies, Regulations & Studies)
97N (Solar Energy)

Keywords: Electric power production, Local governments, Solar energy.

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
Manager, Product & Program Management: Wayne Strickland
Contributing Program Manager: Christie Langone
Technical Information Specialist: Anne Harrison
Design Concept: Linda Davis

This Newsletter is published twelve times a year, and delivered via e-mail on or about the 15th of each month. You may subscribe or unsubscribe by writing to ntrnews@ntis.gov. We can only unsubscribe you if you receive your copy from ntrnews@ntis.gov. Copies are also redistributed through listservs and by other subscribers.

The ntrnews subscribers list is not shared with any other entities for any purpose.

Your comments are always welcome. Write us at ntrnews@ntis.gov.

Permission to redistribute this newsletter is granted.

National Technical Information Service
U.S. Department of Commerce
5301 Shawnee Road
Alexandria, VA 22312

PB2011106890
Natural Gas Vehicles: Status, Barriers, and Opportunities.
Department of Energy, Washington, DC.
Office of Energy Efficiency and Renewable Energy. 2010, 59p
ANL/ESD/10-4

Related Categories/Sub-Categories:
43E (Energy)
43F (Environment)
68A (Air Pollution & Control)
85H (Road Transportation)
91A (Environmental Management & Planning)
97K (Fuels)
97R (Environmental Studies)

Keywords: Motor vehicle fuels, Air pollution abatement, Natural gas vehicles.

PB2011106891
Biomass Multi-Year Plan, November 2010.
Department of Energy, Washington, DC.
Office of Energy Efficiency and Renewable Energy. 2010, 182p

Related Categories/Sub-Categories:
43E (Energy)
43F (Environment)
85H (Road Transportation)
68A (Air Pollution & Control)
91A (Environmental Management & Planning)
97K (Fuels)
97R (Environmental Studies)

Keywords: Biomass, Biopower, Bioenergy market expansion.

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
Source
Report Year, Page Count
Report Number/ISBN13 (if available)
Related Categories/Sub-categories (where the document is also indexed)
Keywords

Category 50 – Civil Engineering

ADA534807

Workshop on Monitoring and Failure Detection in Earthen Embankments.

National Center for Physical Acoustics, University, MS.
2010, 34p

NCPA-JMS-100601

ARO-54345-EV.1

Related Categories/Sub-Categories:

- 41I (Job Environment)
- 44G (Environmental & Occupational Factors)
- 48E (Soil Sciences)
- 50D (Soil & Rock Mechanics)

57U (Public Health & Industrial Medicine)
62B (Computer Software)
63F (Optical Detection)
89D (Structural Analyses)
Keywords: Embankments, Earth dams, Fault detection.

ADA534998

Designing Roads and Retaining Structures for Nangarhar Province, Afghanistan.

Engineering Research and Development Center, Hanover, NH. Cold Regions Research and Engineering Lab.
2011, 79p

ERDC/CRREL-TR-11-01

Related Categories/Sub-Categories:

- 44G (Environmental & Occupational Factors),
- 48F (Geology & Geophysics)
- 50B (Civil Engineering)
- 55C (Meteorological Data Collection, Analysis, & Weather Forecasting)
- 48F (Geology & Geophysics)
- 50B (Civil Engineering)
- 89D (Structural Analyses)

Keywords: Retaining walls, Roads, Soil classification.

DE2010984089

Compressive Behavior of Fine Sand.

Sandia National Labs., Albuquerque, NM. Air Force Research Lab., Eglin AFB, FL. Purdue Univ., West Lafayette, IN.
2010, 72p

SAND2010-2289

Related Categories/Sub-Categories:

- 46E (Structural Mechanics)
- 48E (Soil Sciences)
- 50D (Soil & Rock Mechanics)
- 71D (Ceramics, Refractories, & Glass)

Keywords: Sand, Compressive strength, Triaxial tests

NUREGCR7031

Compilation of Elevated Temperature Concrete Material Property Data and Information for Use in Assessments of Nuclear Power Plant Reinforced Concrete Structures.

Office of Nuclear Regulatory Research. Oak Ridge National Lab., TN.
2010, 328p

ORNL/TM-2009/175

Related Categories/Sub-Categories:

- 50C (Construction Equipment, Materials, & Supplies)
- 77H (Reactor Engineering & Nuclear Power Plants)

Keywords: Nuclear power plants, Concrete structures, Reinforced concrete.

Major Subject Categories

Category Codes*/Title	New for November Quantity**
41 Manufacturing Technology.....	66
43 Problem Solving Information for State & Local Governments.....	274
44 Health Care.....	255
45 Communication.....	48
46 Physics.....	151
47 Ocean Sciences & Technology.....	107
48 Natural Resources & Earth Sciences.....	329
49 Electrotechnology.....	40
50 Civil Engineering.....	103
51 Aeronautics & Aerodynamics.....	211
54 Astronomy & Astrophysics.....	67
55 Atmospheric Sciences.....	82
57 Medicine & Biology.....	512
62 Computers, Control & Information Theory.....	192
63 Detection & Countermeasures.....	108
68 Environmental Pollution & Control.....	314
70 Administration & Management.....	343
71 Materials Sciences.....	71
72 Mathematical Sciences.....	70
74 Military Sciences.....	680
75 Missile Technology.....	9
76 Navigation, Guidance, & Control.....	6
77 Nuclear Science & Technology.....	41
79 Ordnance.....	91
81 Combustion, Engines, & Propellants.....	26
82 Photography & Recording Devices.....	6
84 Space Technology.....	147
85 Transportation.....	158
88 Library & Information Sciences.....	117
89 Building Industry Technology.....	43
90 Government Inventions for Licensing.....	3
91 Urban & Regional Technology & Development.....	277
92 Behavior & Society.....	630
94 Industrial & Mechanical Engineering.....	85
95 Biomedical Technology & Human Factors.....	42
96 Business & Economics.....	333
97 Energy.....	75
98 Agriculture & Food.....	185
99 Chemistry.....	118

* For a listing of Scope Notes that defines the specific topical content for each category, go to <http://www.ntis.gov/pdf/scopenotes.pdf>

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

Category 50 – Civil Engineering

PB2011100292

Pavement Management 2010, Volume 2.
Transportation Research Record: Journal of
the Transportation Research Board, No. 2154.
Transportation Research Board, Washington,
DC.

2010, 209p

TRB-TRR-2154

ISBN 978-0-309-14294-6

Related Categories/Sub-Categories:

50A (Highway Engineering)

50C (Construction Equipment, Materials, &
Supplies)

Keywords: Highway design, Asphalt
pavements, Hot mix asphalts.

PB2011104490

Detecting Deleterious Fine Particles in
Concrete Aggregates and Defining Their
Impact.

Wisconsin Dept. of Transportation, Madison.
2010, 89p

WHRP-10-13

Related Categories/Sub-Categories:

50A (Highway Engineering)

50C (Construction Equipment, Materials, &
Supplies)

Keywords: Fine aggregates, Concretes, Coarse
aggregates.

PB2011104491

Monitoring and Load Distribution Study for
the Land Bridge.

Wisconsin Univ.-Milwaukee. Dept. of Civil
Engineering and Mechanics.

2010, 179p

WHRP-10-12

Related Categories/Sub-Categories:

50A (Highway Engineering)

Keywords: Girder bridges, Box beams, Curved
bridges.

PB2011105188

Safe Drinking Water Act (SDWA): A Summary
of the Act and Its Major Requirements.

Congressional Research Service, Washington,
DC.

2010, 22p

See also PB2008-110935 (Report dated 27 Nov
07).

Related Categories/Sub-Categories:

43F (Environment)

50B (Civil Engineering)

68D (Water Pollution & Control)

91A (Environmental Management &
Planning)

Keywords: Water supply, Drinking water,
Ground water.

PB2011105194

Water Infrastructure Needs and Investment:
Review and Analysis of Key Issues, December
21, 2010.

Congressional Research Service.

2010, 40p

See also PB2008-108100 (Report for 23 Jan
08).

Related Categories/Sub-Categories:

43F (Environment)

50B (Civil Engineering)

68D (Water Pollution & Control)

91A (Environmental Management &
Planning)

Keywords: Drinking water, Waste water, Water
quality.

PB2011106203

Transportation Engineering Advancement and
Mentoring.

Alabama Univ. in Huntsville. Dept. of Civil and
Environmental Engineering.

2010, 19p

UTCA-09-306

Related Categories/Sub-Categories:

50 (Civil Engineering)

85 (Transportation)

92D (Education, Law, & Humanities)

Keywords: Engineering education, Technology
transfer, Civil engineering.

RSS Feeds are available in your
choice of NTIS Subject Category. For
information use the **RSS link on the
NTIS Homepage** and look for the
Category RSS Feeds button.

Category 71 – Materials Sciences

ADA534630

Use of Fly Ash in the Mitigation of Alkali-Silica
Reaction in Concrete.

Oregon State Univ., Corvallis. Dept. of Civil
Engineering.

2010, 130p

Related Categories/Sub-Categories:

71D (Ceramics, Refractories, & Glass)

81A (Combustion & Ignition)

99D (Basic & Synthetic Chemistry)

Keywords: Concrete, Silicon dioxide, Cements.

ADA534720

Fatigue Behavior of a SiC/SiC Composite at
1000 degC in Air and in Steam.

Air Force Inst. of Tech., Wright-Patterson AFB,
OH. School of Engineering and Management.

2010, 166p

AFIT/GAE/ENY/10-D01

Related Categories/Sub-Categories:

71D (Ceramics, Refractories, & Glass)

71N (Nonferrous Metals & Alloys)

94K (Laboratory & Test Facility Design &
Operation)

99D (Basic & Synthetic Chemistry)

Keywords: Tensile properties, Silicon carbides,
Fatigue(Mechanics).

ADA534964

Multifunctional Ceramic Nanostructured
Coatings.

Kharkov State Polytechnical Univ. (Ukraine).

2010, 67p

STCU-06-8013

AFRL-AFOSR-UK-TR-2010-0006

Related Categories/Sub-Categories:

71E (Coatings, Colorants, & Finishes)

Keywords: Films, Borides, Carbides.

The Nation's Source for Scientific Information

The National Technical Information Service (NTIS), is the nation's largest and most
comprehensive source of government-funded scientific, technical, engineering and business-
related information.

For more than 60 years, we have served as an innovative resource to Federal agencies,
businesses and universities looking for high-caliber information. Our mission is straight-forward:
to support the nation's economic growth by providing access to information that stimulates
innovation and discovery.

While you can find information on virtually any subject on the web, there's no guarantee
that the information is accurate — or that it has been published by a legitimate source. NTIS
undergoes a rigorous process to ensure that all the information we offer is authentic and
credible. This integrity, along with the breadth and depth of our collection, is why NTIS is
regarded as the nation's preeminent source of government information.

Category 71 – Materials Sciences

DE2010984149

Precision Moisture Generation and Measurement.

Sandia National Labs., Albuquerque, NM.
2010, 31p
SAND-2010-1721

Related Categories/Sub-Categories:

71L (Materials Degradation & Fouling)
94K (Laboratory & Test Facility Design & Operation)

Keywords: Moisture, Aging, Mass spectroscopy.

DE2010992782

Nanocrystal-enabled Solid State Bonding.

Sandia National Labs., Albuquerque, NM.
2010, 31p
SAND2010-7013

Related Categories/Sub-Categories:

46D (Solid State Physics)
71 (Materials Sciences)

Keywords: Semiconductor nanocrystals, Nanoscience, Materials science.

N20100042366

Smart Fabrics Technology Development.

National Aeronautics and Space Administration, Houston, TX. Lyndon B. Johnson Space Center.
2010, 20p

Related Categories/Sub-Categories:

41K (Engineering Materials)
71F (Composite Materials)
84C (Manned Spacecraft)

Keywords: Fabrics, Smart materials, Manned space flight.

PB2011105550

Concerns About a Variance Approach to the X-ray Diffractometric Estimation of Microfibril Angle in Wood.

Forest Products Lab., Madison, WI.
2010, 94p

FPL-RP-658

Related Categories/Sub-Categories:

48D (Forestry)
57C (Botany)
71R (Wood & Paper Products)

Keywords: Wood fibers, X-ray diffraction, Cellulose.

Category 89 – Building Industry Technology

ADA534168

Structural Technology Evaluation and Analysis Program (STEAP).

Delivery Order 0037: Prognosis-Based Control Reconfiguration for an Aircraft with Faulty Actuator to Enable Performance in a Degraded State.

Purdue Univ., West Lafayette, IN.
2010, 197p

AFRL-RB-WP-TR-2010-3109

Related Categories/Sub-Categories:

51A (Aerodynamics)
89D (Structural Analyses)

Keywords: Actuators, Structural engineering, Military aircraft.

ADA534991

ANP District Headquarters Facilities in Helmand and Kandahar Provinces have Significant Construction Deficiencies Due to Lack of Oversight and Poor Contractor Performance.

Office of the Special Inspector General for Afghanistan Reconstruction, Arlington, VA.
2010, 47p

Related Categories/Sub-Categories:

44G (Environmental & Occupational Factors)
89D (Structural Analyses)
92 (Behavior & Society)

Keywords: Construction, Security, Contract administration.

DE2010983161

CO2 Monitoring for Demand Controlled Ventilation in Commercial Buildings.

Lawrence Berkeley National Lab., CA. Environmental Energy Technologies Div.

2010, 52p
LBNL-3279E

Related Categories/Sub-Categories:

43E (Energy)
89B (Architectural Design & Environmental Engineering)
94E (Environmental Engineering)
97J (Heating & Cooling Systems)

Keywords: Ventilation systems, Commercial buildings, Detectors.



The National Technical Reports Library (NTRL) enhances accessibility to the NTIS technical reports collection. It provides access to:

- Bibliographic records of more than 2,000,000 technical reports
- Downloadable full text of 600,000 of these reports in PDF format

Subscription rates are based on institutional FTE levels.

The NTRL operates on a system interface that allows users to do queries on the large NTIS bibliographic database. The intent is to broadly expand and improve access to over 2.5 million bibliographic records (pre-1960 to present) and 500k full-text documents in PDF Format that are directly linked to that bibliographic database.

For more information, go to <http://www.ntis.gov/products/ntrl.aspx>.

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.

Category 89 – Building Industry Technology

DE2010983245

Residential Forced Air System Cabinet Leakage and Blower Performance.

Lawrence Berkeley National Lab., CA.

Environmental

Energy Technologies Div.

2010, 87p

LBNL-3383E

Related Categories/Sub-Categories:

89B (Architectural Design & Environmental Engineering)

97J (Heating & Cooling Systems)

Keywords: Residential buildings, Standardization, Air leakage.

DE2010983359

INL High Performance Building Strategy.

Idaho National Laboratory, Idaho Falls, ID

2010, 81p

INL/EXT-10-17808

Related Categories/Sub-Categories:

89B (Architectural Design & Environmental Engineering)

97B (Energy Use, Supply, & Demand)

Keywords: Buildings, Construction, Energy efficiency.

DE2010984140

Fundamentally New Approach to Air-Cooled Heat Exchangers.

2010, 48p

Sandia National Labs., Albuquerque, NM.

SAND2010-0258

Related Categories/Sub-Categories:

89B (Architectural Design & Environmental Engineering)

97J (Heating & Cooling Systems)

97P (Geothermal Energy) 89B (Architectural Design & Environmental Engineering)

Keywords: Energy conservation, Heat transfer, Air conditioners.

PB2011100287

Bridge Engineering 2010, Volume 1.

Transportation Research Record: Journal of the Transportation Research Board, No. 2200.

Transportation Research Board, Washington, DC.

2010, 176p

TRB-TRR-2200

ISBN 978-0-309-16048-3

See also PB2011-100287.

Related Categories/Sub-Categories:

50A (Highway Engineering)

89D (Structural Analyses)

Keywords: Bridges(Structures), Structural design, Bridges decks.

PB2011100286

Bridge Engineering 2010, Volume 2.

Transportation Research Record: Journal of the Transportation Research Board, No. 2201.

Transportation Research Board, Washington, DC.

2010, 170p

TRB-TRR-2201

ISBN 978-0-309-16042-1

See also PB2011-100286.

Performing Organization: Transportation Research Board, Washington, DC.

Related Categories/Sub-Categories:

50A (Highway Engineering)

89D (Structural Analyses)

Keywords: Bridges (Structures), Highway engineering, Bridge dynamics.

PB2011100310

Bridge Engineering 2010, Volume 3.

Transportation Research Record: Journal of the Transportation Research Board, No. 2202.

Transportation Research Board, Washington, DC.

2010, 224p

TRB-TRR-2202

ISBN 978-0-309-16056-8

Related Categories/Sub-Categories:

50A (Highway Engineering)

89D (Structural Analyses)

Keywords: Bridges (Structures), Structural analysis, Seismic design.

PB2011103792

Evaluate the Effect of Turbine Period of Vibration Requirements on Structural Design Parameters: Technical Report of Findings.

Minerals Management Service, Herndon, VA. 2010, 130p

Related Categories/Sub-Categories:

46E (Structural Mechanics)

51A (Aerodynamics)

89D (Structural Analyses),

97O (Miscellaneous Energy Conversion & Storage)

Keywords: Wind turbines, Structural design, Fatigue life.

PB2011103848

Numerical Analysis of Dense Narrow Backfills for Increased Passive Resistance.

Brigham Young Univ., Provo, UT. Dept. of Civil and Environmental Engineering.

2010, 210p

UT-10-19

Related Categories/Sub-Categories:

50A (Highway Engineering)

50D (Soil & Rock Mechanics)

89D (Structural Analyses)

Keywords: Load tests, Pile caps, Backfills.

PB2011104997

Disaster Resilience: A Guide to the Literature.

National Inst. of Standards and Technology (BFR), Gaithersburg, MD. Office of Applied Economics.

2010, 125p

NIST/SP-1117

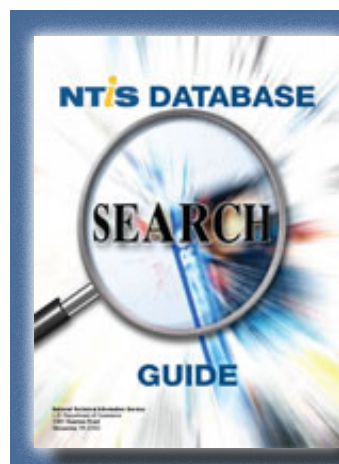
Related Categories/Sub-Categories:

43D (Police, Fire, & Emergency Services)50B (Civil Engineering)

89D (Structural Analyses)

91I (Emergency Services & Planning)

Keywords: Constructed facilities, Disasters, Literature reviews.



Just Revised – the NTIS Database Search Guide

Gain an in-depth understanding of the NTIS database structure with this new guide:

- Comprehensive list of NTIS Categories
- Helpful information and search hints
- Reference Guide to online commercial services and the NTRL
- Great Reference Manual & Teaching Tool

Free Download: <http://www.ntis.gov/pdf/dbguid.pdf>

Category 89 – Building Industry Technology

PB2011105000

[Methodology for Calculating Construction Industry Supply Chain Statistics.](#)

National Inst. of Standards and Technology (BFR), Gaithersburg, MD. Office of Applied Economics.

2010, 74p

NIST-SP-1116

Related Categories/Sub-Categories:

72F (Statistical Analysis)

89 (Building Industry Technology)

Keywords: Construction industry, Statistics, Supply chains.

PB2011105364

[NCHRP Web-only Document 167: Statistical Modeling of Cement Heat of Hydration Using Phase and Fineness Variables.](#)

National Inst. of Standards and Technology (ITL), Gaithersburg, MD.

2010, 73p

NCRP PROJ 9-26A

Related Categories/Sub-Categories:

50C (Construction Equipment, Materials, & Supplies)

89G (Construction Materials, Components, & Equipment)

Keywords: Cements, Hydration, Dissolution, Concrete structures.

Category 91 – Urban & Regional Technology & Development

ADA534376

[La Familia Drug Cartel: Implications for U.S.-Mexican Security.](#)

Army War Coll. Strategic Studies Inst., Carlisle Barracks, PA.

2010, 128p

Related Categories/Sub-Categories:

74 (Military Sciences)

91C (Fire Services, Law Enforcement, & Criminal Justice)

92C (Social Concerns)

92E (International Relations)

Keywords: Drug detection, Drug smuggling, Mexico.

ADA534888

[Decision-Making Uncertainty and the Use of Force in Cyberspace: A Phenomenological Study of Military Officers.](#)

Joint Chiefs of Staff, Washington, DC.

2010, 483p

JCS-SR-10-00144

Related Categories/Sub-Categories:

74G (Military Operations, Strategy, & Tactics)

92B (Psychology)

62B (Computer Software)

62D (Information Processing Standards)

91I (Emergency Services & Planning)

Keywords: *Uncertainty, *Infrastructure, *Attack, *Cybernetics, *Decision making, *National security, Situational awareness, Field grade officers, Organization theory, Cyberterrorism, Theses, Electronic security, *Cyber warfare doctrine, *Decision making uncertainty, Cybersecurity, Cyber attacks, Phenomenological reduction analysis, Attack attribution.

PB2011100291

[Transit 2010, Volume 4. Transportation](#)

[Research Record: Journal of](#)

[the Transportation Research Board, No. 2146.](#)

Transportation Research Board, Washington, DC.

2010, 141p

TRB-TRR-5146

ISBN 978-0-309-14298-4

Related Categories/Sub-Categories:

43G (Transportation)

85 (Transportation)

91B (Transportation & Traffic Planning)

Keywords: Transit industry, Public transportation, Marine transportation.

PB2011100311

[Travel Forecasting 2010, Volume 2.](#)

[Transportation Research Record:](#)

[Journal of the Transportation Research Board, No. 2176.](#)

Transportation Research Board.

2010, 100p

TRB-TRR-2176

ISBN 978-0-309-16045-2

Related Categories/Sub-Categories:

43G (Transportation)

85H (Road Transportation)

91B (Transportation & Traffic Planning),

Keywords: Travel demand, Forecasting, Transportation planning.

PB2011100312

[Development and Field Demonstration of DSRC-Based V2I Traffic Information System for the Work.](#)

Minnesota Univ., Minneapolis. Intelligent Transportation Systems Inst. Department of Transportation, Washington, DC. University Transportation Centers Program.

2010, 46p

CTS 10-15

Related Categories/Sub-Categories:

43G (Transportation)

45C (Common Carrier & Satellite)

85H (Road Transportation)

91B (Transportation & Traffic Planning)

Keywords: Communication systems, Traffic safety, Information systems.

PB2011100317

[Measuring Walking and Cycling Using the PABS \(Pedestrian and Bicycling Survey\)](#)

[Approach: A Low-Cost Survey Method for Local Communities.](#)

California State Dept. of Transportation, Marysville. Department of Transportation.

2010, 106p

MIT-RP-10-03

Related Categories/Sub-Categories:

43G (Transportation)

68 (Environmental Pollution & Control)

85H (Road Transportation)

91B (Transportation & Traffic Planning)

Keywords: Pedestrians, Bikeways, Public transportation.

PB2011106202

[Impacts of Signal System Timings on Rain Related Congestion.](#)

Alabama Univ. at Birmingham. University Transportation Center for Alabama, Tuscaloosa. Dept. of Civil and Environmental Engineering. Department of Transportation, Washington, DC. University Transportation Centers Program.

2010, 38p

UTCA-07-211

Related Categories/Sub-Categories:

43G (Transportation)

55C (Meteorological Data Collection, Analysis, & Weather Forecasting)

91B (Transportation & Traffic Planning)

85H (Road Transportation)

Keywords: Traffic signals, Rain, Traffic congestion.

PB2011104487

[Safety and Economic Impacts of Converting Two-Way Frontage Roads to One-Way: Methodology and Findings.](#)

Texas Transportation Inst., College Station.

2011, 320p

REPT-0-5856-1

FHWA/TX-11/0-5856-1

Related Categories/Sub-Categories:

43G (Transportation)

85H (Road Transportation)

91B (Transportation & Traffic Planning)

Keywords: Frontage road, Accident analysis, Two way traffic.

Category 91 – Urban & Regional Technology & Development

PB2011105130

Chemical Facility Security: Reauthorization, Policy Issues, and Options for Congress, December 23, 2010.

Congressional Research Service.

2010, 27p

See also PB2011-104251 (Report dated 10 Dec 10).

Related Categories/Sub-Categories:

91I (Emergency Services & Planning)

Keywords: Chemicals, Homeland security, Waste water.

PB2011105134

Emergency Communications: Broadband and the Future of 911, December 22, 2010.

Congressional Research Service.

2010, 33p

See also PB2011-100489 (Report dated 25 Aug 10).

Related Categories/Sub-Categories:

43D (Police, Fire, & Emergency Services)

45C (Common Carrier & Satellite)

91I (Emergency Services & Planning)

Keywords: Emergency communications, Telephone systems, Internet protocol standards.

PB2011104157

Key Transportation Indicators. February 2010.

Department of Transportation, Washington, DC. Research & Innovative Technology Administration (RITA).

2010, 29p

Related Categories/Sub-Categories:

43G (Transportation)

85 (Transportation)

91B (Transportation & Traffic Planning)

96A (Domestic Commerce, Marketing, & Economics)

Keywords: Transportation sectors, Economic indicators, Jet fuel.

Category 94 – Industrial & Mechanical Engineering

ADA534011

Atom Interferometry on Atom Chips - A Novel Approach Towards Precision Inertial Navigation System - PINS.

Massachusetts Inst. of Tech., Cambridge.

Office of Sponsored Research.

2010, 28p

ARO-53021-PH-DRP.1

Related Categories/Sub-Categories:

49 (Electrotechnology)

76D (Navigation Systems)

94K (Laboratory & Test Facility Design & Operation)

Keywords: Atomic clocks, Inertial navigation, Resonators.

ADA534138

Validation of the Aerosol Beam-Focused Laser-Induced Plasma Spectrometer (ABF-LIPS) for Metal Emission Characterization.

Naval Facilities Engineering Service Center, Port Hueneme, CA.

2010, 128p

NAVFACESC-TR-2350-ENV

ESTCP-WP-0213

Related Categories/Sub-Categories:

68A (Air Pollution & Control)

94K (Laboratory & Test Facility Design & Operation)

99F (Physical & Theoretical Chemistry)

Keywords: Spectroscopy, Air pollution, Metals.

DE2010983161

CO2 Monitoring for Demand Controlled Ventilation in Commercial Buildings.

Lawrence Berkeley National Lab., CA.

Environmental Energy Technologies Div.

Department of Energy, Washington, DC.

2010, 52p

LBNL-3279E

Related Categories/Sub-Categories:

43E (Energy)

89B (Architectural Design & Environmental Engineering)

94E (Environmental Engineering)

97J (Heating & Cooling Systems)

Keywords: Ventilation systems, Commercial buildings, Detectors.

N20100041305

Tribology and Mechanical Components Branch Overview.

National Aeronautics and Space

Administration, Cleveland, OH. NASA John H. Glenn Research Center at Lewis Field.

2010, 31p

E-17534

Related Categories/Sub-Categories:

94 (Industrial & Mechanical Engineering)

84 (Space Technology)

Keywords: Tribology, Aerospace engineering, Turbomachinery.

PB2011103913

Slip, Trip, and Fall Prevention for Healthcare Workers.

National Institute for Occupational Safety and Health, Washington, DC.

2010, 56p

DHHS/PUB/NIOSH-2011-123

Related Categories/Sub-Categories:

41I (Job Environment)

57U (Public Health & Industrial Medicine)

94D (Job Environment)

95D (Human Factors Engineering)

Keywords: Occupational accidents, Health care personnel, Injury prevention.

PB2011103937

Review of Bonding Pretreatment Procedures and Analytical Chemistry Methods for Detecting Composite Surface Contamination and Moisture.

Florida International Univ., Miami.

Applied Research Center. Federal Aviation Administration.

2010, 48p

DOT/FAA/AR-10/11

Related Categories/Sub-Categories:

41G (Quality Control & Reliability)

41J (Tooling, Machinery, & Tools)

94 (Industrial & Mechanical Engineering)

Keywords: Adhesive bonding, Aerospace industry, Process control (Industry).

Any of the technical reports listed in this newsletter can be ordered directly from the National Technical Information Service, simply click on the title to go to the product detail page on **NTIS.GOV**.

If your organization is a subscriber to the National Technical Reports Library, most of the reports listed can be downloaded free there. For information on how to subscribe to NTRL, go to <http://www.ntis.gov/products/ntrl.aspx>.

Title Index – For NTRL Users

The following is a list of the titles included in this month's issue, without links to the NTIS Website.

The list is in alphabetical order by title.

<i>NTIS number</i>	<i>Page #</i>	<i>NTIS number</i>
ADA534991	4	ANP District Headquarters Facilities in Helmand and Kandahar Provinces have Significant Construction Deficiencies Due to Lack of Oversight and Poor Contractor Performance.
ADA534011	7	Atom Interferometry on Atom Chips - A Novel Approach Towards Precision Inertial Navigation System - PINS.
PB2011106891	1	Biomass Multi-Year Plan, November 2010.
PB2011100287	5	Bridge Engineering 2010, Volume 1. Transportation Research Record: Journal of the Transportation Research Board, No. 2200.
PB2011100286	5	Bridge Engineering 2010, Volume 2. Transportation Research Record: Journal of the Transportation Research Board, No. 2201.
PB2011100310	5	Bridge Engineering 2010, Volume 3. Transportation Research Record: Journal of the Transportation Research Board, No. 2202.
PB2011105130	7	Chemical Facility Security: Reauthorization, Policy Issues, and Options for Congress, December 23, 2010.
DE2010983161	7	CO2 Monitoring for Demand Controlled Ventilation in Commercial Buildings.
DE2010984089	2	Compressive Behavior of Fine Sand.
PB2011105550	4	Concerns About a Variance Approach to the X-ray Diffractometric Estimation of Microfibril Angle in Wood.
ADA534888	6	Decision-Making Uncertainty and the Use of Force in Cyberspace: A Phenomenological Study of Military Officers.
ADA534998	2	Designing Roads and Retaining Structures for Nangarhar Province, Afghanistan.
PB2011100312	6	Development and Field Demonstration of DSRC-Based V2I Traffic Information System for the Work.
PB2011104997	5	Disaster Resilience: A Guide to the Literature. National Inst. of Standards and Technology (BFRL), Gaithersburg, MD. Office of Applied Economics.
PB2011105134	7	Emergency Communications: Broadband and the Future of 911, December 22, 2010.
PB2011103792	5	Evaluate the Effect of Turbine Period of Vibration Requirements on Structural Design Parameters: Technical Report of Findings.
ADA534720	3	Fatigue Behavior of a SiC/SiC Composite at 1000 degC in Air and in Steam.
DE2010984140	5	Fundamentally New Approach to Air-Cooled Heat Exchangers.
PB2011106887	1	Guide to Community Solar: Utility, Private, and Non-Profit Project Development.
PB2011106202	6	Impacts of Signal System Timings on Rain Related Congestion.
DE2010983359	5	INL High Performance Building Strategy.
PB2011104157	7	Key Transportation Indicators. February 2010.
ADA534376	6	La Familia Drug Cartel: Implications for U.S.-Mexican Security.
PB2011100317	6	Measuring Walking and Cycling Using the PABS (Pedestrian and Bicycling Survey) Approach: A Low-Cost Survey Method for Local Communities.
PB2011106899	1	Methanol as an Alternative Transportation Fuel in the U.S.: Options for Sustainable and/or Energy-Secure Transportation.
ADA534964	3	Multifunctional Ceramic Nanostructured Coatings.
DE2010992782	4	Nanocrystal-enabled Solid State Bonding.
PB2011106890	1	Natural Gas Vehicles: Status, Barriers, and Opportunities.
PB2011105364	6	NCHRP Web-only Document 167: Statistical Modeling of Cement Heat of Hydration Using Phase and Fineness Variables.
PB2011103848	5	Numerical Analysis of Dense Narrow Backfills for Increased Passive Resistance.

Title Index – For NTRL Users continued

<i>NTIS number</i>	<i>Page #</i>	<i>NTIS number</i>
DE2010984149	4	Precision Moisture Generation and Measurement.
DE2010983245	5	Residential Forced Air System Cabinet Leakage and Blower Performance.
PB2011103937	7	Review of Bonding Pretreatment Procedures and Analytical Chemistry Methods for Detecting Composite Surface Contamination and Moisture.
PB2011104487	6	Safety and Economic Impacts of Converting Two-Way Frontage Roads to One-Way: Methodology and Findings.
PB2011103913	7	Slip, Trip, and Fall Prevention for Healthcare Workers.
N20100042366	4	Smart Fabrics Technology Development.
PB2011106665	1	Solar Powering Your Community: A Guide for Local Governments. Second Edition.
ADA534168	4	Structural Technology Evaluation and Analysis Program (STEAP). Delivery Order 0037: Prognosis-Based Control Reconfiguration for an Aircraft with Faulty Actuator to Enable Performance in a Degraded State.
PB2011100291	6	Transit 2010, Volume 4. Transportation Research Record: Journal of the Transportation Research Board, No. 2146.
PB2011100311	6	Travel Forecasting 2010, Volume 2. Transportation Research Record: Journal of the Transportation Research Board, No. 2176.
PB2011106203	3	Transportation Engineering Advancement and Mentoring.
N20100041305	7	Tribology and Mechanical Components Branch Overview.
ADA534630	3	Use of Fly Ash in the Mitigation of Alkali-Silica Reaction in Concrete.
ADA534138	7	Validation of the Aerosol Beam-Focused Laser-Induced Plasma Spectrometer (ABF-LIPS) for Metal Emission Characterization.
PB2011105194	3	Water Infrastructure Needs and Investment: Review and Analysis of Key Issues, December 21, 2010.
ADA534807	2	Workshop on Monitoring and Failure Detection in Earthen Embankments.