#### **Louisiana Tech University**



## BREEZE BULLETIN

Office of University Research (http://research.latech.edu)

You must see your goals clearly and specifically before you can set out for them. Hold them in your mind until they become second nature.

Les Brown

(1945-, American speaker, author, trainer, motivator,)

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A special 'THANK YOU!!!!' to all of our hardworking researchers, research directors and their staff!! LaTech couldn't do it without you!!!!

> THE OFFICE OF UNIVERSITY RESEARCH HAS MOVED!!!!

We are now located on the 15th floor of Wyly Tower, Rooms 1502-1508. Please call x5075 for more info if needed.

#### SOUTHERN COMPASS

Find out how Louisiana's economy and research efforts measure up in the southern region. Join Southern Compass, a weekly newsletter with its finger on the pulse of economic development and research in the southern US region:

http://www.southern.org/index.html

# CHEMISTRY PROFESSOR NAMED OUTSTANDING LOUISIANA RESEARCHER

Dr. Yuri Lvov, a professor of chemistry at Louisiana Tech University was recognized on October 24 as the state's outstanding researcher concerning materials and emerging technologies.

Lvov was named the 2006 Outstanding Louisiana Researcher by the Awards Subcommittee of the Louisiana Materials and Emerging Technologies Conference.

"I am very happy to receive this award," Lvov said. "It is not only an award for me, but it is an award for Louisiana Tech because the school has never gotten this award before."

The honor spotlights a researcher who has made significant provisions through either progressive research over a long period of time or ground-breaking research over a shorter time.

The presentation was scheduled to be made in Baton Rouge at Louisiana State University during this year's LMET meeting. The event is sponsored by the Louisiana Board of Regents and the National Science Foundation's Experimental Program to Stimulate Competitive Research.

Since joining Tech's staff in 1999, Lvov has been leading the school's nanotechnology research and holds the Pipes Eminent Endowed Chair on Micro and Nanosystems. Nanotechnology involves engineering functional systems at atomic, molecular and super molecular levels.

Tech's nanotechnology program is one of the university's most important technological programs, Lvov said. "At [Tech] we are among the national leaders in nanotechnology and No. 3 in the nation in nanotechnology education."

Lvov has introduced a number of research areas based on nanoassembly. He is also actively developing clay nanotubes that can be used to sustain the release of drugs and protein in medication.

Among Lvov's many accomplishments is attaining the position of president of Nano Pulp and Paper LLC, a Tech spin-off company. The company's ultimate goal is to improve paper production.

Lvov has been published internationally, obtained six U.S. and Japanese patents, and produced work that has been ranked among three most cited papers on molecular self-assembly. Yet among his biggest supporters are the faculty and staff at Tech's Institute for Micromanufacturing.

Dr. Kody Varahramyan, director of the IfM, has known Lvov for six years and has collaborated with him on many different research projects. Varahramyan said he is proud of the recognition Lvov is bringing to Tech by being the state's top researcher.

## NEW GRANTS AWARDED

			Amount
PI/Co-PI	Title	Funding Agency	Amount
Luke Lee	Rapid Rehabilitation of Hurricane Damaged Structures	BoR	150,000.00
Linda Ramsey	RIPPLE	NSF/LaSip	63,179.00
Linda Ramsey	RIPPLE	BoR/LaSip	43,124.00
Linda Ramsey	RIPPLE	NCLB/LaSip	78,477.00
Linda Ramsey	LINCS	BoR/LaSip	28,956.00
Linda Ramsey	LINCS	NCLB/ LaSip	62,945.00
Linda Ramsey	LINCS	BESE/LaSip	73,020.00
Glenn Beer	Developing the e-Portal Curriculum	BoR	35,000.00
Amy Vessel	The Reading CSI (Competencies Subject Integration) Project	NCLB/LaSip	76,926.00
Amy Vessel	The Reading CSI (Competencies Subject Integration) Project	BoR/LaSip	42,874.00
Amy Vessel	The Reading CSI (Competencies Subject Integration) Project	BESE/LaSip	77,400.00
Jun Ing Ker	Enhancement of Flexible Manufacturing Lab	BoR	52,280.00
Jadranka Simicevic	Review and Compilation of Test Data for Janssen Resin	Janssen	3,003.00
Kody Varahramyan	Acquisition of a Sputtering System for Micro/Nanotechnology Research, Training, and Education	NSF	399,250.00
Tamara Powell	Accepting the Challenges of the 21st Century: Using Multimedia Technology to Enhance the Delivery of Writing and Literature Instr. at LaTech	DoD.	50,407.00
Dave Norris	Independent Economist	BoR DOAdmin	31,000.00
	•		
Susan Roach	Louisiana Regional Folklife Program	DOArts	60,000.00 400,000.00
Joanne Dauzat	Louisiana Tech/Monroe City Partnership for School Reform	LDOE	•
Rastko Selmic	Control of Flying Blimps in a Wireless Sensor Network Environment	Nasa/Lsu	5,000.00
Joanne Dauzat	Literacy Across the Curriculum	BoR	5,000.00
Sven Eklund	Improvement of Miniature Biofuel Cells Using CNTs as Electron Transfer Mediators	NASA/LSU	5,000.00
Walt Besio	Using Concentric Ring Electrode Stimulation for Emergency Seizure Control in Spaceflight	NASA/LSU	5,000.00
Chester Wilson Yuri Lvov	Developing Instrumentation for Space Radiation Dosmeters Composite Material of Clay Nanotubes and Cellulose Mircrofiber	NASA/LSU NASA/LSU	5,000.00 5,000.00
Bobby Dowling	LaTech Recreation Trails Project	USDOT/Rec Trails	63,750.00
July 2006 Total			\$1,821,591.00
Cheng Luo	Rapid Rehabilitation of Hurricane Damaged Structures	BoR/Enh	48,000.00
Onong Luc	Improved Computer-based Data Acquisition Work Stations in Physiology	Dorverm	10,000.00
John Wakeman	Teaching Laboratories	BoR/ Enh	30,000.00
Walt Besio	Graduate Fellows in Biomedical Engineering	BoR	22,000.00
Robert Fakelmann	The 3-D Digital Fabrication and Assembly Studio	BoR/Enh	142,000.00
	Enhancing Experiential Education and Undergraduate Research Through		40 500 00
Jan Colvin	Development of a Resource and Research Laboratory	BoR/Enh	12,500.00
Dale Snow	Biochemistry Experiences for Life Science Majors	BoR/Enh	16,000.00
Dileep Sule	Enhance Lean Manufacturing Lab	BoR/Enh	44,971.00
Walt Besio James Palmer	Undergraduate Biomedical Instrumentation Laboratory Layer By Layer Nano Self-Assembly for Enzyme Immobilization	BoR/Enh BoR	66,769.00 37,891.00
Scott Gold	Plantinum Nanotube Based Electrocatalyst Structures for Micro Fuel Cells Preparing Students to Explore a 21st Century World: Advancing Geographic	BoR	51,085.00
Byong Woon Jun	Preparing Students to Explore a 21st Céntury World: Advancing Geographic Information Science Edu at LaTech	BoR	79,000.00
Sidney Sit	Correlating Material Surface Properties With Cellular Mechanical Properties	NASA/LSU	10,000.00
Sidney Sit	Characterization Laboratory for Biomaterials and Tissue Engineering	BoR/ Enh	151,000.00
Vir Phoha	Multi University Research and Training in Information Assurance and Computer Security	NSF	35,677.00

## NEW GRANTS AWARDED (CONT'D FROM PAGE 2)

			Amour
PI/Co-PI	Title	Funding Agency	Awarde
Henry Cardenas	E-Seal Phase I SBIR Consultation and Development Support	DoD/ SHoT	39,903.0
David Mills	NERO 'Nanoscience Education and Research Outreach"	NSF	266,130.0
David Hall	Living WITH the Lab	NSF	497,917.0
Cheng Luo	Multiple Arrays of Conducting Polymer Microwire Based Sensors	BoR	10,000.0
Richard Hutchinson Frank Ji	Beyond Oil to Renewable Energy A Handheld Microsensor Device for Measurement of Low Moisture in Natural Gas	BoR Sensidyne	13,750.0 30,419.0
David Hall	Evaluation of a Commercial Laser Profiling System for Post- Installation Measurement of Storm Sewer and Drainage Pipe	Plastics Pipe Inst	15,917.0
Guy Carwile	HABS Drawings-Cooley House	NPS thru State	5,059.0
Glenn Beer	Explorer Clubs (Year 2)	NCLB/BoR	97,289.5
Carynn Wiggins	Nonfiction Matters!	BESE	3,581.0
Chester Wilson	Get Chad the Money	NASA/LaSPACE	20,000.0
Lee Sawyer	Neutron-Enhanced Calorimetry for Hadrons (NECH)	DoEnergy	39,740.0
August 2006 Total	Neutron-Elmanceu Galorimetry for Hadrons (NEGH)	Dochergy	\$1,550,843.0
August 2000 Total	Novel Microcoil Devices for Measurement of low Level Moisture in		<b>φ1,330,643.0</b>
Frank Ji	Natural Gas	NSF	50,000.0
Aleta Overby	Louisiana Equine Council Communications	La Equine Council	1,585.0
Angela Kennedy	2006-07 Carl Perkins Vocational & Technical Education Grant	USDoE. LTCC	108,525.0
Jim Nelson	LaTech's S-STEM Scholarship Program	NSF	499,292.0
Jim Nelson	LaTechStep: LaTech's Stem Talent Expansion Program	NSF	831,829.0
Chester Wilson	LaSpace GSRA Fellowship/Olivier	NASA/LaSpace	5,000.0
Chester Wilson	LaSpace GSRA/Berry	NASA/LaSpace	4,000.0
Sept 2006 Total			\$1,500,231.0
Wendy Trzyna	Nitrogen Cycling in Oil Brine Contaminated Sites	OSRADP	56,556.0
John Adams	McIntire-Stennis Cooperative Research Program	USDA	184,495.0
Chester Wilson	LaSpace GSRA/Sweeney	NASA/Laspace	4,000.0
	Reactive Electrophoretic Consolidaton of Fine Construction Aggre-		
Henry Cardenas	gates	Osmotech	24,217.0
Les Guice	Suboptimal Wireless Sensor Nodes Deployment Structural Water Main Liner Testing Program - Phase II Characteriza-	Clarkson	225,000.0
Erez Allouche	tion of Long-Term Materials Properties	City of Hamiliton	27,800.0
Mike O'Neal	Providing Managerial Expertise to Network Foundation Technologies	NFT	8,481.6
Janie Humphries	Project SHARE: Students Helping Through Assistance, Resources and Education	Dept Social Service	10,000.0
October 2006 Total			\$540,549.6
		YTD	\$5,413,214.6

#### ADDITIONAL GRANT FUNDING FOR EXISTING AWARDS

<u>Erez Allouche</u>, <u>ENHANCING TRENCHLESS SERVICE INSTALLATIONS THROUGH KEYHOLES: TECHNOLOGY REVIEW</u>, SCREENING, AND PRE-LIMINARY EVALUATION OF TECHNOLOGIES AND TECHNIQUES, Gas Technology Institute \$44,872;

<u>Gary Stokely</u>, WORKPLACE & COMMUNITY TRANSITION FOR INCARCERATED YOUTH OFFENDERS PROGRAM - YR 3, La. Dept. of Public Safety & Corrections \$50,000;

Tommy Grafton, NORTH CENTRAL ALLIANCE PARTNERS IN PREVENTION; DHHS through SAMHSA \$99,780;

### PROPOSALS SUBMITTED

FILE #	PI	Co-PI 's	TITLE	AGENCY	\$
07-001	Lee, Luke		Bridging the Gap Between Monitoring, Rehabilitation, and Service Life Predic- tion	NSF Career	424,020
07-002	Vavrek, Milan	Trzyna, Wendy	Improved Selection of Oil Spill Remediation Strategies in Coastal Habitats	Coastal Response Research Center	189,580
07-003	Gold, Scott		Nanostructures by Template Wetting	NSF Career	400,000
07-004	Derosa, Pedro		Development of a Combined Model for the Study of Conductive and Photoconductive Polymers and Polymeric Devices	NSF Career	469,961
07-006	Luo, Cheng		Development of a Nanopunching Lithography Method for Generating Sidewall Templates and Polymer Nanodevices	NSF Career	432,406
07-007	Wilson, Chester		LaSpace GSRA Fellowship/Wagnespack	LaSpace	4,000
07-009	Walczyk, Jeffrey		The Effects of Motivation, Skill Fluency, and Task on the Comprehension of Young Children	NSF	105,516
07-011	Wilson, Chester		LaSpace GSRA/Whitney	NSF	4,000
07-013	Sit, Sidney		Effects of Material Surface Properties on Interfacial Cell Micromechanics	NSF	400,150
07-014	Sit, Sidney		Effects of Material Surface Properties on Interfacial Osteoblast Micromechanics	Air Force Office of Scientific Research	301,960
07-015	Paun, Andrei		CAREER: Membrane Systems, Automata and Proteins	NSF Career	475,475
07-016	Lvov, Yuri		DNA-Vaccine: Nanoassembly on DNA Cores for Efficient Reproduction in Phagocytes	US Civilian R&D Foundation	15,000
07.040			Enhancing Trenchless Service Installations Through Keyholes: Technology Review, Screening and Preliminary Evaluation of Technologies and Technologies	0.71	44.000
07-018	Allouche, Erez	Hall/Baumert	niques -Phase 3  Women in Engineering Knowledge Cen-	GTI	44,820
07-019	Carpenter, Jenna		ter: Informing Research, Practice and Institutional Change	NSF	81,165
07-020	Sterling, Ray	Allouche, Erez	Creating Resilient Cities: Hurricanes, Floods and Sewer Networks	Water Environment Research Foundation	74,816
07-022	Allouche, Erez	Sterling/ Simicevic	Utilization of Ultra-wideband Radiation as a Utility Detection System Ahead of an Excavation Bucket in Soil	John Deere Dubuque Works	49,092
07-023	Walczyk, Jeffrey	Sheets, Tilman	Response Time, Answer Consistency, and Eye Movements: Cognitive and Physiological Cues to Deception	NSF	153,575

#### DECEMBER 2006

# BREEZE BULLETIN

## PROPOSALS SUBMITTED (CONT'D FROM PAGE 4 . . .)

FILE #	PI	Co-PI 's	TITLE	AGENCY	\$
07-025	O'Neal, Patrick	Lvov, Yuri	Nano-Engineered Drug Delivery With Optical Monitoring of Vascular Delivery and Tumor Uptake	NIH	375,000
07-026	Dai, Weizhong	Nassar, Raja	Mathematical Modeling and Numberical Methods for Hyperthermia Cancer Treatments	NIH	574,012
07 020	Dai, Weizhong	Dobbins, Tab-	Undergraduate Experiences in Micro/	INIT	074,012
07-027	Jones, Steve	betha	Nanoengineering	NSF	299,239
07-028	Kaajakari, Ville	Rodrigue, Eric	LaSPACE Fellowship	LaSPACE	4,000
07-029	Saber, Aziz		Monitoring System for Bridges Subject to Heavy Loads	LTRC	223,494
07-030	Guice, Les	Pratt/Nelson	Venture Enhancement Teams for Commercialization of University IP	NSF	600,000
07-031	Chiu, Alan	Besio, Walt	Nonparametric Classification of Epilepsy Using Hidden Markov Models	Epilepsy Foundation	92,000
07-032	Sit, Sidney	Lvov, Yuri	Modification of Corneal Tissue Engineered Scaffolds to Promote Epitheliazation	La. Biological Re- search Network	350,000.00
07-033	Proctor, Larry		Better Health for the Delta Phase I/Year 3 Reapplication	BHFTD	21,410
07-034	Phoha, Vir		Engineering Situation Aware Self Morphological Sensor Networks	BoR	800,000
07-035	Wilson, Chester		Elvense Measurement of Focused Ion Beams	LaSpace	5,000
07-036	Shipp, Michael		Training in Assistive Technology	Louisiana Rehabilita- tion Services	96,234
07-037	Cardenas, Henry		Accelerated Bone Strengthening and Repair via Electrokinetic Bioactive Nanoparticle Treatment	BoR/ITRS	40,000
07-038	Besio, Walt		Effects of Non-invasive Transcranial Electric Stimulation on Status Epilepticus: A Pilocarpine Rat Epilepsy Model	BoR/RCS	180,000
07.020	Chin Alan		Application of Hippocampal Neuron Dynamics in Artificial Neural Networks for the Development of Brain Function Strat-	D-D/DCC	420,000
07-039	Chiu, Alan		Development of a Multi-scale Tool to	BoR/RCS	120,000
07-040	Derosa, Pedro		Study Electronic, Geometrical and conductive Properties of Polymers	BoR/RCS	150,000
07-041	Duncan, Christian		The Visualization of Dynamic Information	BoR/RCS	180,000
07-042	Evans, Katie		Sensitivity Analysis for the Design of MinMax Controllers	BoR/RCS	142,182
07-043	Kaajakari, Ville		Micromechanics Beyond Silicon	BoR/RCS	170,000
07-044	Lee, Luke		Vibration Based NDE for Capacity Esti- mation of Beam Structures With Bonded FRP Composites	BoR/RCS	140,885
07-045	Liu, Don		An Efficient Method for Simulating Diffusion Inside Nanotudes for Drug Delivery Systems	BoR/RCS	116,052

### PROPOSALS SUBMITTED (CONT'D FROM PAGE 5 . . . )

FILE #	PI	Co-PI 's	TITLE	AGENCY	\$
07-045	Liu, Don		An Efficient Method for Simulating Diffusion Inside Nanotudes for Drug Delivery Systems	BoR/RCS	116,052
07-046	O'Neal, Chad	Gold, Scott	A Study of the Kinetics of Electroplating Lead-free Solders Using Ultrasonic Energy Enhancement	BoR/RCS	160,000
07-047	Paun, Mihaela		Numerical Methods for Optimizing Temperature Distribution Related to Hyperthermia Treatment	BoR/RCS	118,232.00
07-048	Sit, Sidney		Effects of Materials Surface Properties on Endothelial Cell Micromechanics	BoR/RCS	153,843
07-049	Wobisch, Mar- kus		Search for New Physics Phenomena in Jet Production at Hadron Colliders	BoR/RCS	165,000
07-050	O'Neal, Chad		Suss Microtec SB6e Wafer Bonder for Microenergy and Advanced Device Packaging Applications	DOD	161,997
07-051	Ecklund, Sven		Asymmetric Catalysis Hydrogenation at Platinum Surfaces Modified With Self-Assembled Monolayer of Chiral Ligand	BoR/RCS	150,000
07-052	O'Neal, Chad	Selmic/ Dobbins	Thick-Film, Piezoelectric MEMS Sensors and Actuators Using nanoparticle-Enhanced Sol-Gel Deposition	BoR/ Depscor	385,000
07-053	Luo, Cheng		Multiple Arrays of Conduction Poymer Micro/ Nanowire Based Sensors	BoR/ITRS	120,000
07-054	O'Neal, Patrick	Wakeman, John	Measuring the Environmental Impact of Nanomaterials	BoR/RCS	150,000
07-055	Allouche, Erez	Simicevic/ Selmic/Sterling	A Non-Destructing Method of Using Ultra Wideband Electromagnetic Technology for Condition Assessment and Mechanical Damage Prevention of Buried Structures	BoR/RCS	115,000
07-056	Hutchinson, Richard		The Organization of Renewable Energy Sector	BoR/RCS	10,000
07-057	Moore, Pamela		Nursing Capitation	BoR	75,000
07-058	Kaajakari, Ville		Stress Tolerant MEMS Packaging	DARPA	100,073
07-059	Wilson, Chester		Theresa Williams GSRA	LaSPACE	5,000
07-060	Zou, Li-He		Enhancement of Telecommuniation Laboratory	BoR/ Enhance- ment	116,960
07-061	Phoha, Vir	Turner, Galen	Engineering Situation Aware Sensor Networks	BoR/ DEPSCoR	812,836
07-062	Adams, John		McIntire-Stennis Cooperative Research Program	USDA	185,495
07-063	Sit, Sidney		Effect of Material Surface Properties on Interfacial Cellular Micromechanics	Beckman Foundation	263,886
07-064	DeCoster, Mark		Highly Sensitive Nano-biochips for Fast Diagnosis of Diseases	BoR/ DEPSCoR	74,995
07-065	Phoha, Vir		Smart Sensor Networks for Reconnaissance, Surveillance and Target Acquisition	BoR/ DEPSCoR	120,496

## PROPOSALS SUBMITTED(CONT'D FROM PAGE 6 . . . )

FILE #	PI	Co-PI 's	TITLE	AGENCY	\$
1122 //	Schroeder,				·
07-066	Bernd		Reconstruction of Ordered Sets	NSF	145,396
07-067	Luo, Cheng	Lvov, Yuri	Theoretical, Numerical and Experimental Studies of An Intermediate-Layer Lithography Approach	NSF	304,707
07-068	Luo, Cheng		Su-8/Pdms Composite Membrane Based Lithographic and Packaging Approaches for Developing Conducting Polymer Mems	NSF	269,352
07-069	Lvov, Yuri		Protein Drug Microencapsulation	EIPC/ Baxter Corp	60,000
07-070	Wilson, Chester	Kaajakari, Ville	A Wireless Network Integrated Radiation & Improvised Explosive Detection Program	BoR/ Depscor	430,440
07-071	Gold, Scott	Derosa, Pedro	Proton Conduction in Nanoporous Proton Exchange Membranes	NSF	294,865
07-072	Selmic, Sandra	O'Neal/Gold	Development of Encapsulated Conjugated Polymer Optoelectronic Devices	NSF	363,615
07-073	Gold, Scott		Fuel Cell Catalytic Nanostructures by Template Wetting	NSF	187,119
07-074	Dua, Sumeet	Leangsuksun, Box	Cybertools: Comprehensive Computing, Data, Network and Visualization Services for LONI, with Applications in Coastal and Environmental Fluid Dynamics	BoR/ EPSCoR	289,199
07-075	Cardenas, Henry		Investigation of Electrokinetic Pozzolanic Nanoparticle Treatment for Corrosion Mitigation in Concrete	NSF	657,708
07-076	Wang, Jay		Macro-and Micro-scale Modeling of Shear Band Lo- calization in Soils and its Application to the Analysis of the Breached Levee System in New Orleans	NSF	274,098
07-077	Dauzat, Jo Ann	Holmes/Parker	Project ELEVATE	La Dept. of Edu.	13,650
07-078	Bukowski, Marie		Artist Residency in Mertola, Portugal with Solo Expedition	BoR/Atlas	20,592
07-079	Kennedy, Gary	Green, William	Novel Calcium-Sensing for Early Diagnosis of Milk Fever	BoR/Enh	41,334
07-080	Hillard, Jeff	Winstead, Charles	Rejuvenation of Compacted Pastures and Turfgrass	BoR/Enh	16,072
07-081	Lvov, Yuri	Dobbins, Tab- betha	Nano-Micro-Macro Integration for New Cellulose Based Materials	NSF	475,786
07-082	Lvov, Yuri		MURI: Multiscale Manufacturing of Small All-Plastic Integrated Methanol Fuel Processor/PEM Fuel Cell Systems	Office of Naval Re- search	640,000
07-083	Kanno, Jinko		Excluded Graph Minors and Immersions	National Security Agency	29,573
07-084	Varahramyan, Kody	Luo, Cheng	Thermal Evaporator for Micro/Nanotechnologies Education & Research	BoR/Enh	59,500
07-084	Lvov, Yuri	Luo, Oneng	Layer-By-Layer Coating Technology for Improving Inter-fiber Bonding of Recycled OCC Fibers	US Forest Products Lab	7,500
07-086	Dauzat, Jo Ann	Basinger, Dawn	Second Careers in Teaching (SCIT) Yr. 2	La Dept. of Edu.	86,693
07-087	Bukowski, Marie		Digitizing the Etching and Lithography Facilities	BoR/Enh	51,636
07-088	Sethi, Prerna	Fuller, Jan	Undergraduate Database/Data Mining Laboratory	BoR/Enh	56,667

### PROPOSALS SUBMITTED(CONT'D FROM PAGE 7 . . . )

FILE #	PI	Co-PI 's	TITLE	AGENCY	\$
				ULS	
07-089	Jani, Vighavari		Assisting Rejuvenation of Gert Town	Serves Grant	29,752
			Enhancement of Educational and Research Infra-		·
07-090	Lvov, Yuri	Varahramyan/ McDonald	tructrue for Nanosystems Engineering and Mo- lecular Science and Nanotechnology Curricula	BoR/Enh	69,000
			Enhancement of Microsystems Engineering Labs		
07-091	O'Neal, Chad		with a XiF2 Release Etch Station	BoR/Enh	67,000
07-092	Roberts, Freddy		Associate Director for External Programs	LTRC	403,607
07-093	Hegab, Hisham	Palmer/C. O'Neal	Enhancing Micro/Nanotechnology Education with Hands-on SEM	BoR/Enh	60,630
			Enhancement of the Measurement & Characteri-		
		Gunasekaran/	zation Laboratory and Graduate Education in Non-destructive Materials Testing Through Practi-		
07-094	Selmic, Sandra	Luo	cal Training	BoR/Enh	126,013
07-095	Chiu, Alan		Spatial Coherence Function of Brain Signals for the Prediction of Neurological Disorders	NIH	150,000
07-096	Freyaldenhoven, Fran	Madix/Bryan	Enhancement of the Audiology Program at Louisiana Tech University	BoR/Enh	23,021
07-097	Berg, Jerry L.	Hooker/ Donehoo	Advanced Learning Technologies for Visual Arts	BoR/Enh	91,159
07-098	Guinn, Mark		Enhance and Improvement of Lighting in the Howard Auditorium	BoR/Enh	96,012
		Sivils/Heiden/	CREATED: Computerized Resources and Equipment for Apparel and Textiles Education and De-		
07-099	Myers, Lori	Rambin	sign	BoR/Enh	89,080
07-100	Walker, Lynn		Enhancement of Aquatic Environmental Science	BoR/Enh	78,346
07-101	Mainardi, Daniella		Computer Laboratory Enhancement for Nanotechnology Education	BoR/Enh	70,239
07-102	Wang, Jay	Saber, Aziz	Undergraduate Geotechnological Engineering Lab	BoR/Enh	52,123
07-103	Mills, David		Bioimaging and Digital Microscopy Training Lab	BoR/Enh	81,955
07-104	Gallagher, Peter	Jennings, Susan	Environmental Control System for Lomax Hall Greenhouse Complex	BoR/Enh	91,845
07-105	Palmer, James	Gold, Scott	Enhancing the Chemical Engineering Lab with Infrared In-line Process Analysis	BoR/Enh	45,454
07-106	Wilson, Chester		Micro Scale Detectors for Space Based Cosmic Radiation Detection and Monitoring	LaSPACE	32,880
07-107	Tucker, Erin	Murphey, Mark	LaTech Meat Science Laboratory Enhancement	BoR/Enh	150,585
07-108	Overby, Aleta		The North Louisiana Therapeutic Riding Center Project	BoR/Enh	41,643
07-109	Lee, Luke	Saber, Aziz	Composite Structures Laboratory	BoR/Enh	92,562
07-110	Griffin, Dixie	Baumert, Mi- chael	Enhancement of Fluid Mechanics/Hydraulics Lab	BoR/Enh	87,485
07-111	Allouche, Erez	Baumert, Mi- chael	Advanced Cementitious Materials Laboratory Enhancement	BoR/Enh	92,030

## PROPOSALS SUBMITTED (CONT'D FROM PAGE 8 . . .)

FILE#	PI	Co-PI 's	TITLE	AGENCY	\$
07-112	Crittendon, Kelly		Enhancing Engineering Education Through Modern Precision Fabrication Tools	BoR/Enh	84,254
07-113	Tims, Heath		Electrode Orientation Testing	CNS	1,225
07-114	Tims, Heath	Hall, David	CFD of Flow Impact of Service Taps	Insituform Tech., Inc.	8,291
07-115	Cardenas, Henry	Hall, David	Electrochemical Oil Spill Prevention	OSRDP	32,440
07-116	Sterling, Ray	Allouche, Erez	Encouraging Innovation in Locating and Characterizing Underground Utilities	TR Board	299,983
07-117	Ji, Frank		Microcantilever Biosensors Based on Ligand Gated Receptors	NIH	519,388
07-118	Sit, Sidney	Ji, Frank	Microcantilever-based Dynamic Studies of Fibrinogen Interfacial Properties	NIH	129,664
07-119	Ramsey, Paul	Briggs, Erin	Hydrocarbons, Dispersants, and Metals: Toxicity	OSRDP	75,860
07-120	O'Neal, Chad		Piezoelectric Strain Sensor for Soil Applications	US Army	59,998
07-121	Thompson, Elaine	Malmstrom, Troy	Hurricane Devastation Photographic Exhibit	ULS Serves Grant	13,993
07-122	Overby, Aleta		The CARE Project	ULS Serves Grant	8,859
07-123	Beer, Glenn		Louisiana Tech/SGA Mentoring Project	ULS Serves Grant	14,763
07-124	Allouche, Erez	Sterling, Ray	Utilization of Ultra-wideband Radiation as a Utility Detection System Ahead of an Excavation Bucket in Soil	John Deere	8,000
07-125	Norris, Dave		LED Matching Grant Award Application	LED	83,346
07-126	Mainardi, Daniella	Derosa, Pedro	Modified Methanol Dehydrogenase Nanocatalysts for Fuel Cell Applications	NSF-NIRT	1,330,551
07-127	DeCoster, Mark	Lvov, Yuri	NIRT: Layer-by-layer Patterned Nanofilm Substrates as Research Platforms for Cellular Differentiation and Con- nectivity	NSF-NIRT	1,500,00
07-128	Luo, Cheng		NER	NSF-NER	99,333
07-129	Overby, Aleta		The ARK Project for Lincoln Parish	LA Campus Compact	12,411
07-130	Dans, Clarice	Shoemaker, S.	Superior Graduate Fellows in Audiology	BoR/Grad. Fellows	144,000
07-131	Smith, Re- becca		Louisiana Early Education Program	La. Dept. of Edu	50,000
07-132	Ramachandran , B.		Superior Graduate Fellows in Computational Analysis and Modeling	BoR/Grad. Fellows	168,000
07-133	Gold, Scott	Ramachandran, B.	Superior Graduate Fellows in Engineering	BoR/Grad. Fellows	384,000
			Louisiana Forest Products Development Center (aka Dev. & Expansion of LA Secondary Wood Processing		
07-134	Gibson, Mark		Industry)	LSUAC	55,000
07-135	Gold, Scott	Wilson, Chester	NER: Microscale Nanostructured Metal Castings	NSF	129,504

#### PROPOSALS SUBMITTED(CONT'D FROM PAGE 9. . .)

FILE #	Pl	Co-PI 's	TITLE	AGENCY	\$
07-136	McConathy, Terry	Ramachandran /Young	Doctoral Diversity in Engineering and the Sciences at Louisiana Tech University	BoR/SREB	380,000
07-137	Sit, Sidney	Mills/Lvov/ Paun/Chiu	Integrated Manipulation of Substrate Properties for an Improved Construction of Stem Cell-based Artificial Bio- materials	NSF	1,874,055
07-138	Wilson, Chester		X/FIB Technology	Radiance/ Air Force	365,000
07-139	O'Neal, Chad		Low Profile Multi-Mode Sensors for Anti-Tamper Applications	Radiance/ Air Force	325,000
07-140	Besio, Walt		A Non-Invasive Patterned Functional Electrical Stimulation (PFES) Prototype for Stroke Rehabilitation	NCIIA	16,500
07-141	Beer, Glenn	Basinger, Dawn	LaTech/LA GEAR UP Explorers Camps 2007	BoR	297,637
07-142	Wang, Jay		Fully Coupling Analysis of Porous Ashphalt Pavement Using Three-dimensional Finite Element Modeling	LTRC	30,000.00
07-143	Allouche, Erez	Roberts, Freddy	Applications of Inorganic Polymer Concrete (Geopolymer) in Transportation Structures in Harsh Environments	LTRC	30,000.00

# CHEMISTRY PROFESSOR NAMED OUTSTANDING LOUISIANA RESEARCHER (CONT'D FROM PAGE 1 . . .)

"I think it is a well-deserved award," Varahramyan said. "This award recognizes all of the incredible contributions he has made in scientific research and to the scientific community."

Lvov sites collaboration and teamwork as necessary tools to successful research. He also acknowledges good analytical equipment, an entrepreneurial approach and courage as important factors in successful national scientific competition.

Lvov began teaching at Tech after working at the Naval Laboratory in Washington, D.C.

"I thought (coming to Tech) would be a great opportunity," Lvov said. "The IfM had just been built, and I saw it as a great beginning. At the Naval Laboratory I worked among researchers, but this was a chance to be independent."

(Reprint from Tech Talk)

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#### ADDITIONAL GRANT FUNDING FOR EXISTING AWARDS (CONT'D FROM PAGE 3 . . . )

John Adams, MCINTIRE-STENNIS FY '06. USDA \$924;

Edward Bell, REHABILITATION LONG-TERM TRAINING-REHABILITATION OF INDIVIDUALS WHO ARE BLIND OR HAVE VISION IMPAIRMENTS, US Dept. of Education \$99,995;

Tabbetha Dobbins, UNDERSTANDING THE LOCAL ATOMIC LEVEL EFFECTS OF DOPANTS IN COMPLEX METAL HYDRIDES USING SYNCHRO TRON XRAY ABSORPTION SPECTROSCOPY AND DENSITY FUNCTIONAL THEORY; Dept. of Energy \$99,297.

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#### HAVE A SAFE & HAPPY HOLIDAY!!!

University closing dates: December 20-January 2