

## REPORT OF PROPOSALS

For the Month of December/2003

<u>Department</u>	<u>Investigator</u>	<u>Sponsor</u>	<u>Title</u>	<u>Amount</u>
<b>CHEMICAL ENG'G.</b>	Ma, Yi H.	DOE	Sulfur-Tolerant Palladium-Copper Alloy Membranes for Hydrogen Separation with High Pressure CO2 for Sequestration	\$ 397,216
<b>CHEMISTRY &amp; BIOCHEMISTRY</b>	Thalladi, V.	NSF	Design and Synthesis of Organic and Metal-Organic Octupolar Nonlinear Optical Materials	\$ 479,840
<b>CIVIL &amp; ENVIRONMENTAL ENGINEERING</b>	Mallick, R.	NSF	Development of a Course Module on Airport Pavement Engineering	\$ 84,737
	Bergendahl, J. *Thompson, R.	Petroleum Research Fund	Removal of Organics from Water Through Coupled Nanoporous Sorption/Advanced Oxidation	\$ 120,000
<b>COMPUTER SCIENCE</b>	Wills, C.	NSF	Exploiting Flow Relationships for Distributed Applications	\$ 339,202
	Brown, D.	IBM	SEURAT Eclipse Plug-in	\$ 29,984
<b>ELECTRICAL &amp; COMPUTER ENGINEERING</b>	Cyganski, D.	Raytheon Company	Multi-objective Routing and Control Optimization for Satellite Linked Mobile Ad Hoc Networks	\$ 89,657
<b>IGSD</b>	Vernon-Gerstenfeld, S. *Manzari, J. *Turgeon, P.	NSF	Development of a Center for Language and Learning	\$ 199,823

<b>MATHEMATICAL SCIENCES</b>	Tang, D.	NSF	Computational Modeling for Atherosclerotic Plaque Progression and Rupture	\$	255,511
	Lui, R.	NSF	Collaborative Research: Two-Dimensional Cell Motility Models	\$	213,398
	Heinricher, A. *Weekes, S. *Vernescu, B.	NSF	Mathematics at Work: The Massachusetts Vocational Mathematics Partnership	\$	6,398,844
<b>MECHANICAL ENG'G.</b>	Moon, Y.	NSF	Compliant Parallel Kinematic Machine Design	\$	289,229
	Demetriou, M.	NSF	Supervisory Control of Second Order Distributed Parameter Systems: Integrating Robust Actuator Placement and Actuator Switching	\$	235,404
	Tryggvason, G. *Esmaeeli, A.	NASA	Studies of Forced Convection Boiling	\$	500,000
	Demetry, C.	NSF	Effect of Feedback and Grading Methods on Student Self-Assessment in Project-Based Learning Environments: An Exploratory Study	\$	276,479
	Johari, H. *Esmaeeli, A. *Tryggvason, G.	NASA	Electrohydrodynamics of Droplet Suspensions	\$	451,239
	Pryputniewicz, R. *Furlong, C.	BWXT Pantex, LLC	Development of OEH Methodology for Shape Measurements	\$	1,510,662
	Apelian, D.	Advanced Technology Institute	Copper Based Casting Technology	\$	82,919

<b>PHYSIC</b>	Garcia, R.	Petroleum Research Fund	Fluctuation-Induced Forces in Liquid Crystals	\$ 35,000
<b>SS&amp;PS</b>	Wilkes, J.	NSF	The Utility of MBTI and RAT as Learning Styles Indicators	\$ 100,084
<b>OTHER</b>	Blaisdell, S. *Demetry, C.	NSF	Effect of an Intervention Program on Girls Entry into STEM Majors: A Controlled Study	\$ 66,000
	<b>*CPI</b>		<b>Total</b>	<b>\$ 12,155,228</b>