

Task/Subtask Location in Annual Report		2007 ANNUAL ERC REPORT SRC/SEMATECH Engineering Research Center Research Task Title
Pg 4	SRC 425.020	An Integrated, Multi-Scale Framework for Designing Environmentally-Benign Copper, Tantalum and Ruthenium Planarization Processes (Thrust A)
Pg 22	SRC 425.014	Environmentally Benign Electrochemically Assisted Chemical Mechanical Planarization (Thrust A)
Pg 28	SRC 425.016	EHS Impact of Electrochemical Planarization Technologies (Thrust A)
Pg 33	SRC 425.019	Low Environmental-Impact Processing of sub-50 nm Interconnect Structures (Thrust A)
Pg 39	SRC 425.017	Environmentally Benign Vapor-Phase and Supercritical CO ₂ Processes for Patterned Low- k Dielectrics (Thrust A)
Pg 52	SRC 425.013	Non-PFOS/non-PFAS Photoacid Generators: Environmentally Friendly Candidates for Next Generation Lithography (Thrust D)
Pg 62	SRC 425.012	CMOS Biochip for Rapid Assessment of New Chemicals (Thrust C)
Pg 67	SRC 425.022	Environmentally-Friendly Cleaning of New Materials and Structures for Future Micro-and Nano-Electronics Manufacturing (Thrusters B and C)
Pg 76	SRC 425.021	Low-Water and Low-Energy Rising and Drying of Patterned Wafers and Nano-structures (Thrust C)
Pg 82	SRC 425.015	Reductive Dehalogenation of Perfluoroalkyl Surfactants in Semiconductor Effluents (Thrust C)
Pg 91	SRC 425.018	Destruction of Perfluoroalkyl Surfactants in Semiconductor Process Waters using Boron Doped Diamond Film Electrodes (Thrust C)
Pg 97	SRC	ESH Assessment: Materials, Structures and Processes for Nano-scale MOSFETs with High-Mobility Channel (Thrust B)
Pg 104	Custom	Post-Planarization Waste Minimization
Pg 108	Custom	In-Situ Slurry Thickness and Friction Measurements during Chemical Mechanical Planarization
Pg 117	Custom	Surface Characterization and Flow Resistance Estimation of CMP Pads
Pg 121	Custom	Mechanistic Study and Modeling of Novel Orbital Motion Polisher for Copper CMP Process
Pg 127	Custom	Process Optimization and Modeling of Copper and Tantalum Chemical Mechanical Planarization
Pg 134	Custom	Sematech/Texas Instruments Custom Project: Environmentally Benign Repair and Sealing of Ultra Low-k Dielectrics
Pg 140	Custom	Research Report on the Screening of Four Options of PFOS Removal from Litho-Track Wastewater