FMS to Hold 14th Biennial Conference

The 14th Biennial Conference on National Materials Policy, sponsored by the Federation of Materials Societies (FMS), will be held June 17–20, 1996 in Baltimore, Maryland.

The goal of the conference is for participants to understand the point of view of the U.S. Congress and the presidential administration on materials issues, and the requirements of government policymakers for information that will help in reaching decisions with regard to science policies.

Invited speakers include George Keyworth, former Science Advisor to President Reagan, and Peter Bridenbaugh, Vice President of Research and Development for Alcoa; representatives of liberal and conservative think tanks; and industrial and university leaders.

For more information contact Betsy Houston, Federation of Materials Societies, 1899 L Street, NW, Suite 500, Washington, DC 20036; 202-296-9282; fax 202-833-3014.

CSSP Supports Federal Investments in University Research

The Council of Scientific Society Presidents (CSSP) recently issued a position paper in support of federally funded university research, "Increasing investment in the future of the nation through university-based research must remain an overriding national priority because it is one of the most productive roles of government." At the CSSP forum on Setting Strategic Direction for PhD Supply/Demand on December 4, 1995, Neal Lane, Director of the National Science Foundation, reiterated this message. He warned against limiting the number of PhD candidates in science and engineering to create a one-to-one correspondence with available job openings because the future demands for these candidates cannot be precisely measured. He supports federally funded university research because "there won't be the historical high return on investment if there is no investment."

S&T Budget Request Climbs for Fourth Consecutive Year

For the fourth consecutive year, President Clinton asked Congress to increase funding for science and technology (S&T). Under the President's FY97 budget proposal, research funding would climb by more than $1 billion to roughly $73 billion, according to John H. Gibbons, Assistant to the President for Science and Technology.

Among the highlights of the President's FY97 S&T budget are

- increases in basic research funding to $14 billion, up by $268 million over 1996, according to Table 10-1, Research and Development Investments, from Clinton's budget proposal;
- increases in university-based research funding to $13 billion (Table 10-1);
- increases in technologies to create new jobs and new industries, in which the Partnership for a New Generation of Vehicles gets a 20% increase over FY96, the Advanced Technology Program gets a 15% increase, and the Manufacturing Extension Partners gets a 5% increase according to Table 10-2, Selected Science and Technology Highlights, from Clinton's budget proposal;
- an increase of 9% over FY96 for 21st-century education technologies (Table 10-2);
- increases in environmental research to $5.4 billion, up 5% from FY96 (Table 10-2); and
- $250 million to support development and deployment of technologies produced in the commercial sector but which have military applications. The 1997 budget proposal also requests $1.6 billion for the Department of Energy's Science-Based Stockpile Stewardship Program (Table 10-2).

Acknowledging that most comparisions to the FY96 budget are "at best, guesses," since Congress had not yet provided the FY96 appropriation, Gibbons said, "We have assumed that Congress will ultimately accept the addbacks in S&T programs requested by the President for FY96 appropriations. Without these addbacks, the difference between the FY96 and FY97 budgets will be significantly greater in almost every category."

(Selected Items from) Table 10-1. Research and Development Investments
(Budget authority, dollar amounts in millions)

	1993 Actual	1995 Actual	1996 Estimate[1]	1997 Proposed	Dollar Change: 1996 to 1997	Percent Change: 1996 to 1997
By R&D Theme:						
Basic research	13,362	13,805	14,059	14,327	+268	+2%
Applied research	13,608	14,273	14,250	14,872	+622	+4%
Development	42,795	40,806	40,909	40,711	-198	*%
Equipment	1,057	1,030	1,026	-4	*%	
Facilities	2,727	1,140	1,201	1,742	+541	+45%
Total	72,492	71,081	71,450	72,679	+1,057	+2%
R&D support to universities	11,674	12,445	12,573	12,728	+155	+1%
Merit (peer) reviewed R&D programs		21,895	21,160	22,406	+1,246	+6%

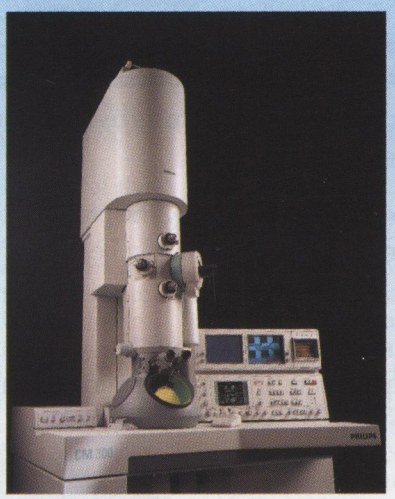
*Less than $500 thousand or 0.5 percent.
[1]Includes Administration's proposed adjustments to 1996 continuing resolution levels.

(Selected Items from) Table 10-2. Selected Science and Technology Highlights
(Budget authority, dollar amounts in millions)

	1993 Actual	1995 Actual	1996 Estimate[1]	1997 Proposed	Dollar Change: 1996 to 1997	Percent Change: 1996 to 1997
National Science Foundation	2,732	3,229	3,220	3,325	+105	+3%
Department of Energy:						
Stockpile stewardship	1,799	1,520	1,567	1,648	+81	+5%
Science users facilities initiative	-	-	100	100	+*	+*
Energy efficiency and pollution preventions R&D	350	447	417	548	+131	+31%
Renewable energy R&D	257	363	275	363	+88	+32%
Department of Commerce:						
NIST—Advanced technology program	68	341	300	345	+45	+15%
NIST—Manufacturing extension partners	18	74	100	105	+5	+5%
Nat'l Science & Technology Council initiatives:						
Environment and natural resources	-	5,365	5,186	5,448	+262	+5%
Partnership for a new generation of vehicles	-	223	241	288	+47	+20%
Educational technology	-	464	397	434	+37	+9%

*Less than $500 thousand or 0.5 percent.
[1]Includes Administration's proposed adjustments to 1996 continuing resolution levels.

Points of view for advanced materials analysis



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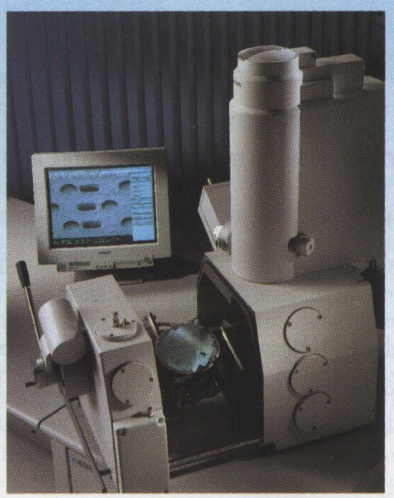

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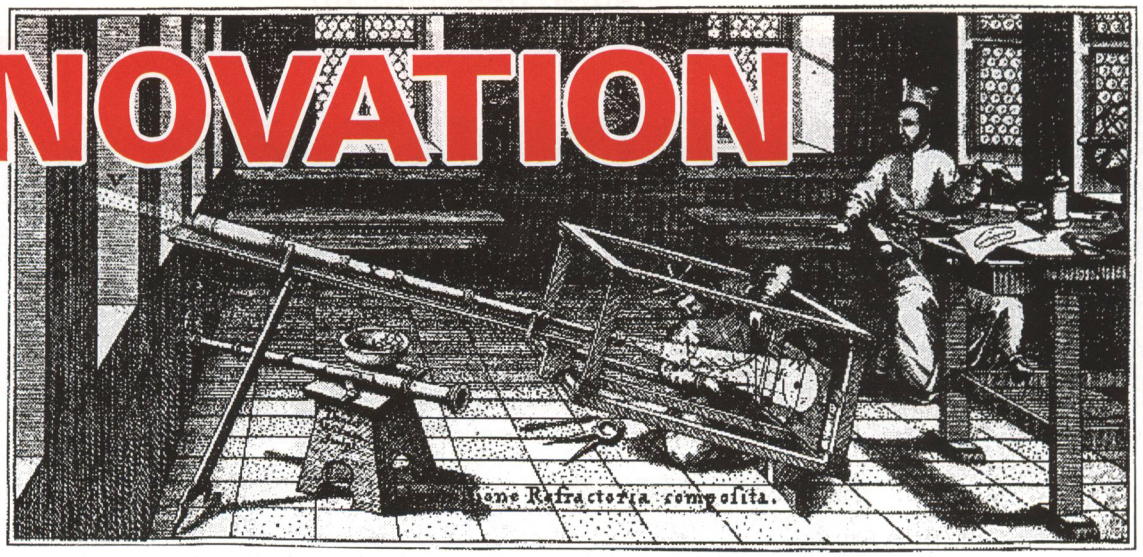

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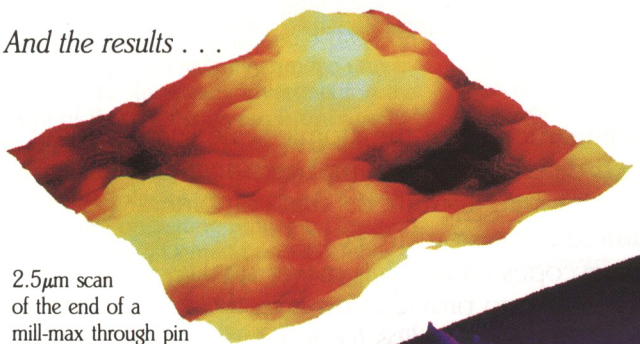
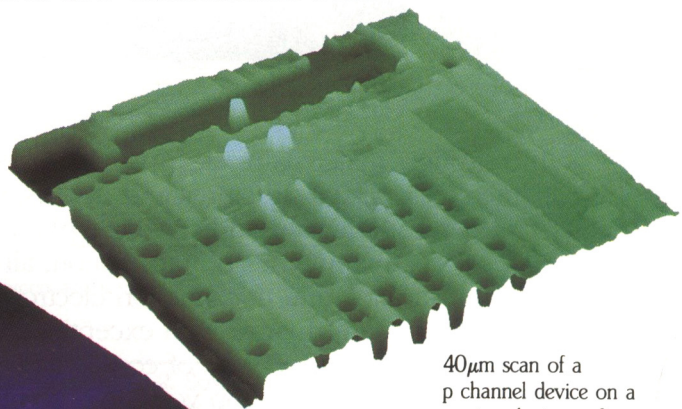
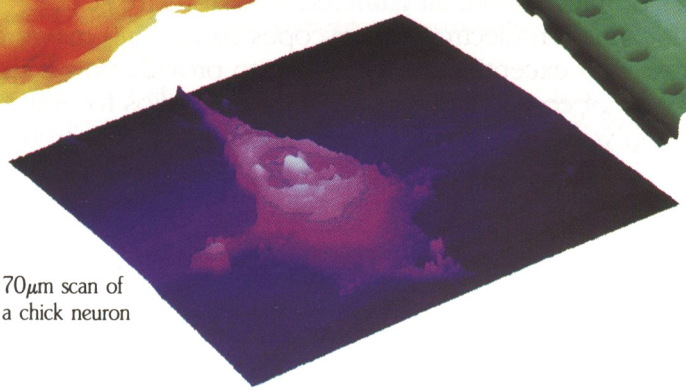


2.5μm scan of the end of a mill-max through pin



40μm scan of a p channel device on a semiconductor wafer



70μm scan of a chick neuron

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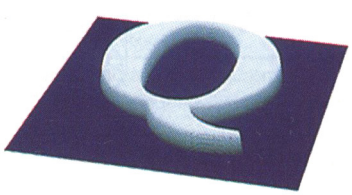

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