

NSF's Materials Budget Gets Big Boost in FY 2001

Funding for materials research activities within the National Science Foundation (NSF) is expected to total just over \$220 million in Fiscal Year 2001, up nearly \$30 million from FY 2000. Most of that increase has been slated to go to Materials Research Project Support, whose budget request is \$125 million in FY 2001, up \$22 million—or 21%—from FY 2000.

In all, the NSF has received an additional \$529-million in federal funding for Fiscal Year 2001, the “largest dollar increase ever,” according to NSF officials, and a big step toward the goal of doubling the agency’s funding within the next five years. The 13.6% increase brings NSF’s total FY 2001 funding to \$4.426 billion.

The additional funding was approved by the 105th Congress last October. It received broad bipartisan support, which creates good prospects for continued funding increases in the coming years.

The campaign to boost NSF funding was a bipartisan effort, led by senators Christopher Bond (R-Mo.) and Barbara Mikulski (D-Md.), respectively, chair and ranking minority member of the Senate appropriations committee. The committee oversees NSF.

Last summer, Sen. Bond and Sen. Mikulski wrote to their 98 colleagues, urging them to double NSF funding—to \$8 billion annually—by FY 2006. “We are... longtime supporters of investments in fundamental research and education—the building blocks of the new economy,” the senators wrote. “Just as we have worked collectively to double the National Institutes of Health (NIH) budget over five years, we believe it is now time to launch a parallel effort to double the budget of the National Science Foundation (NSF) over five years. It is our strong belief that the success of NIH’s efforts to cure deadly diseases such as cancer depends on the underpinning research supported by NSF.”

Although the FY 2001 funding increase falls short of the pace to achieve doubling in five years, it is a “down payment on that goal,” according to Johanna Ramos-Boyer, director of public affairs for Sen. Mikulski. “It is the first step in an effort that the senator plans to make in each of the next five years.”

NSF is preparing detailed breakdowns of its FY 2001 spending plans, according to Tom Weber, director of the Division of Materials Research (DMR) within NSF. Those breakdowns are expected to be completed by the end of January or early February. Meanwhile, according to

Weber, all NSF divisions will operate at 100% of their FY 2000 funding levels.

Within the \$220 million request for materials-related activities at NSF in FY 2001, approximately \$125 million will go for Materials Research Project Support, compared with \$103 million last year. This catch-all category includes, among the following items:

- Condensed Matter Physics: Funded at \$27.9 million in FY 2000, the level could rise to \$33.9 million in FY 2001 if the new appropriations are distributed proportionately throughout DMR—although no such policy has been directed by NSF;
- Solid-State Chemistry: \$12.7 million in FY 2000 (increased to \$15.4 million in FY 2001);
- Materials Theory: \$15.7 million (increased to \$19.1 million);
- Metals: \$11.7 million (increased to \$14.2 million);
- Polymers: \$13.7 million (increased to \$16.6 million);
- Ceramics: \$6.7 million (increased to \$8.1 million); and
- Electronic Materials: \$11.1 million (increased to \$13.5 million).

Also in FY 2001, about \$59 million has been approved for NSF’s Materials Research Science and Engineering Centers, up \$5 million from last year. Although \$35.3 million has been approved for National Facilities and Instrumentation, the figure represents only a \$1-million increase.

Additional money is likely to flow into NSF-sponsored materials research in FY 2001, from both the Information Technology Research (ITR) program, and the National Nanotechnology Initiative (NNI). Plenty of new money is available at NSF for both programs. ITR funding in FY 2001 will total \$215 million, up \$125 million—a 72% increase. And NNI will receive \$150 million, up \$52.7 million, or 54%.

Since the congressionally approved increase was less than NSF’s requested increase of 17%, exactly what this will mean for materials-related efforts will not be known for some time, however, according to Weber. He said, “We’ll need more time to sort things out before we know what the final numbers are.”

PHIL BERARDELLI

DOE Announces Preferred Alternative for Nuclear Infrastructure

The Department of Energy (DOE) announced in November 2000 its preferred alternative for the Final Nuclear Infrastructure Programmatic Environmental Impact Statement (NI-PEIS). The NI-PEIS was developed to help the depart-

ment prepare for future missions, including nuclear technology research and development, medical isotope production, and production of Pu-238 to support future U.S. space exploration. A record of decision will be issued this month.

The alternative infrastructure consists of three major components. DOE will use its existing facilities to the extent possible and consider opportunities to enhance its current infrastructure to meet future mission needs. It will develop a conceptual design and a research program for an Advanced Accelerator Applications facility to perform future research and testing, for which Congress has provided funding in FY 2001. The department furthermore expects permanent deactivation of the Fast Flux Test Facility (FFTF) due to a lack of sufficient commitment from the private and public sectors to restart FFTF.

The preferred alternative anticipates resumption of domestic production of Pu-238 using the Advanced Test Reactor in Idaho and the High Flux Isotope Reactor in Tennessee. The preferred alternative includes processing of the Pu-238 targets at the Oak Ridge National Laboratory.

Moreover, DOE will continue its efforts to make the current infrastructure available for medical research isotope production.

Math and Science Improvements Needed in Middle School, Repeat Study Shows

Results of the Third International Mathematics and Science Study Repeat (TIMSS-R) announced at the end of last year by the Department of Education’s National Center for Education Statistics (NCES), confirms previous evidence that the United States needs to strengthen efforts in math and science education in middle school.

According to the National Science Foundation, which co-funded the study, general scientific and mathematical literacy is significant to the U.S. economy, considering the evolution to high-tech.

This spring, NCES plans to release information about the 27 U.S. jurisdictions that took the TIMSS-R test as individual “nations.” The results will allow those jurisdictions to see exactly how they compare with the countries in the study.

Another part of the TIMSS study involved placing video cameras in classrooms to allow analysis of classroom environment, teacher and student interaction and behavior, and other factors in the varied cultures. The video study results will be released later this year. □