

DOE Notes

200 Argonne Lab Patents Available for Licensing

Two booklets containing abstracts of about 200 U.S. patents issued to DOE's Argonne National Laboratory during 1979-1986 are now available to industrial, federal, state, and local organizations involved in community development and the commercialization of federally funded inventions. The patents cover inventions ranging from fission reactors to better ways to fabricate various materials. Other patents include improved electronic circuitry and sensors, new chemical processes, and innovative medical diagnostic techniques.

The patents described are available for licensing. Further information is available through Argonne's Technology Transfer Center, Argonne, IL; telephone (312) 972-7694.

\$6 Billion Clean Coal Investment by 1992

U.S. industry, states, and the federal government will likely spend more than \$6 billion between 1986 and 1992 to develop and deploy advanced "clean coal" technologies, says a DOE report. Energy Secretary John S. Herrington said the 50-page report, *American's Clean Coal Commitment*, shows "that the U.S. stands second to

none in its commitment to an environmentally clean energy future powered, in large part, by our most abundant energy resource, coal."

According to an inventory of U.S. clean coal efforts in the report, the private sector is expected to commit nearly two-thirds of the total anticipated funding. The \$2 billion federal contribution would include nearly \$750 million in DOE's ongoing Clean Coal Technology program along with continued clean coal R&D. Two states, Ohio and Illinois, account for the remaining expected funding, although the report acknowledges that other states are also financing clean coal efforts.

Nearly \$5 billion would be used to construct and operate clean coal demonstration or test facilities. The report catalogs 37 such projects already under way or planned, including 29 projects in the northeastern United States.

The report also calculates that electric utilities have invested about \$62 billion since the early 1970s to reduce sulfur emissions in response to the Clean Air Act. Included in this total is \$11 billion for pre-combustion coal cleaning, \$34 billion in premiums for low-sulfur coal, and \$17 billion to install scrubbers in power plants. The report draws on other studies, including data from the National Acid Precipitation Assessment Program, to show that sulfur emissions have dropped significantly as a result of the investment. Nationwide from all sources, the report states, sulfur pollutants declined 23% from their 31-million-ton-per-year peak in 1973 to 24 million tons in 1984. During that time, coal consumption increased steadily, rising 78% from 1973 to 1985.

According to the report, several emerging coal technologies can potentially reduce sulfur emissions more economically and effectively than today's conventional controls. Many can also reduce the release of nitrogen pollutants. Cited are technologies such as fluidized bed combustion, limestone injection, advanced coal cleaning, and coal gasification combined cycle.

Copies of *American's Clean Coal Commitment*, along with two accompanying appendices, are available from: Office of Fossil Energy, U.S. Department of Energy, Washington, DC 20585.

International Sharing of Information on Energy R&D

On January 26, the International Energy Agency (IEA) announced the initiation of an agreement among 11 industrialized countries to share information on energy-related research and development. Signed at IEA Headquarters in Paris, the agreement establishes the IEA Energy Technology Data Exchange (ETDE) with participation by the United States, Canada, United Kingdom, Federal Republic of Ger-

many, the Netherlands, Denmark, Norway, Finland, Sweden, Spain, and Japan. Each country will contribute information on energy-related research and development within its national boundaries to a common database, which will be shared among all participants.

DOE will participate in the agreement on behalf of the United States, and the signatory countries have designated DOE's Office of Scientific and Technical Information (OSTI) in Oak Ridge, TN as the operating agent for the ETDE program.

DOE's Energy Data Base (EDB) will contain this information in summary form and will serve as the common database for online electronic access by participating countries. EDB presently contains over 1.8 million summaries of energy-related research results and will be increased by approximately 200,000 additional summaries per year. Because of the ETDE it will become even more comprehensive and valuable to the network of users. EDB is available electronically to U.S. researchers through DIALOG Information Services, Mead Data Central, and STN International, all private vendors of computer retrieval services.

NSF Notes

Materials Processing Initiative Open for Proposals

The Materials Processing Initiative established by the NSF Directorates for Engineering and for Mathematical and Physical Sciences is accepting proposals. The initiative was established to advance fundamental, generic knowledge in materials processing in view of increasing demands for more complex materials, global competition in complex technologies, and the need to strengthen U.S. processing research and related educational activities.

This joint initiative is designed to (1) foster new approaches to solving important problems in materials processing technologies through generic research; (2) generate new ideas and techniques, create new materials and process methodologies, and thereby achieve more effective and efficient use of materials, energy, and labor; (3) generate fundamental knowledge which may lead to the creation of new U.S. technologies and industries; and (4) develop and strengthen the U.S. academic infrastructure in this vital area.

There is no deadline for submission of proposals; however, proposals should reach NSF by December 1, 1987 to assure evaluation in time for funding in a particular fiscal year. For further information, contact Dr. Ranga Komanduri, Engineering, telephone (202) 357-9542; or Dr. Robert Reynik, Division of Materials Research, telephone (202) 357-9789.

Do You Have An Opinion?

The **MRS BULLETIN** wants your comments and views on issues affecting materials research.

Send your comments to:

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