



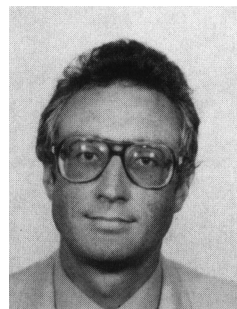
## AUTHORS — JUNE 1978

### ENERGY MODELING AND FORECASTING

#### ENERGY FORECASTING IN THE PREPARATION OF FRENCH PLAN VII

*Marc Alinhac*

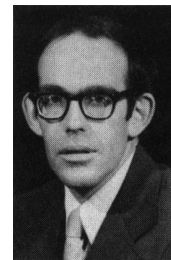
**Marc Alinhac** (Hautes Etudes Commerciales, Paris, 1967) is currently an economist under the general direction of Electricité de France (Paris). His current research interests are in the economy of electricity and energy forecasting methodology. He has worked on various scenarios of energy consumption for the years 1985 and 2000.



#### ENERGY MODELING AND FORECASTING AT THE U.S. ENERGY RESEARCH AND DEVELOPMENT ADMINISTRATION

*Richard H. Williamson  
Edward J. Hanrahan*

**Richard H. Williamson** (top) (PhD expected, economics, North Carolina State University, 1978) is deputy associate director for program analysis in the U.S. Department of Energy (DOE) Office of Energy Research. Previously, he directed the energy systems analysis and modeling efforts for the U.S. Energy Research and Development Administration (ERDA). His current interests are energy planning, research and development strategies, and energy technology commercialization. **Edward J. Hanrahan** (MS, nuclear engineering, New York University, 1963) is director of fuel cycle evaluation in the Nuclear Energy Office at DOE. Previously, he directed the Office of Analysis in ERDA. His current interests are nuclear fuel cycles and nonproliferation alternatives.



### NUCLEAR SAFETY ANALYSIS

#### RISK ANALYSIS OF RADIOACTIVE WASTE MANAGEMENT SYSTEMS IN GERMANY

*Hans J. Wingender*

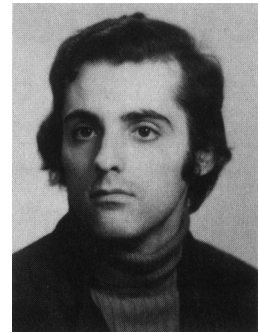
**Hans Joerg Wingender** (doctor, nuclear physics, Goethe Universität, Frankfurt, 1971) has studied at Goettingen, Bonn, and Frankfurt. He is head of the Safety Technology Group in the Department of Nuclear Engineering of NUKEM Company, Hanau, Federal Republic of Germany (FRG). His current interest is the efficacy of safety engineering. As a member of the project management, he is involved in a project for the risk analysis of the waste management facilities planned for the nuclear center in the FRG.



## CONTRIBUTIONS TO THE RISK EVALUATION OF A HIGH-LEVEL WASTE SOLIDIFICATION PLANT

*H. Brücher*

**Heiner Brücher** (doctor, nuclear engineering, Technical University of Aachen, 1977) has worked at the Nuclear Research Center at Jülich since 1974. His interests include safety-related investigations in the light water reactor fuel cycle with emphasis on high-level waste treatment. At present, he is conducting conceptual design and risk analyses of separation, storage, and final disposal of radioactive  $^{85}\text{Kr}$ , as well as tritium treatment.

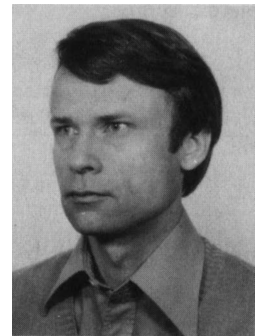


## REACTORS

### TRANSIENT ANALYSES OF A 1000-MW GAS-COOLED FAST REACTOR

*Dirk Wilhelm*

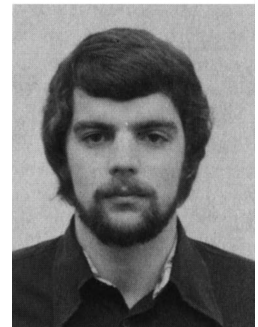
**Dirk Wilhelm** (Dipl. Ing., mechanical engineering, Technical University of Munich, 1969; PhD, mechanical engineering, Technical University of Karlsruhe, 1976) has been a research scientist since 1969 at the Institut für Neutronenphysik und Reaktortechnik of Kernforschungszentrum Karlsruhe. He works on safety studies for the gas-cooled fast breeder reactor, with special interest in the development of computer codes for transient analyses.



### CONTAINMENT NEGATIVE PRESSURE EVALUATION

*Stephen W. Webb*

**Stephen W. Webb** (BS, mechanical engineering, Clarkson College, 1971; MS, nuclear engineering, Pennsylvania State University, 1972) has been engaged in thermal-hydraulic analysis of nuclear power plants as the thermo-fluid staff specialist in the Applied Engineering Analysis Department of Gilbert Associates, Inc. His interests include thrust and jet impingement analysis, subcompartment pressurization modeling, and containment accident analysis techniques.

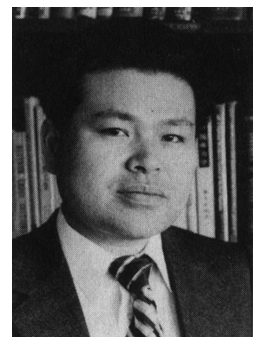


## FUEL CYCLES

### OPTIMUM FUEL LOADING AND OPERATION PLANNING FOR LIGHT WATER REACTOR POWER STATIONS. PART I: PRESSURIZED WATER REACTOR CASE STUDY

*Tsutomu Hoshino*

**Tsutomu Hoshino** (Dr. Eng., electrical engineering, Kyoto University, 1967) is an associate professor at Institute of Atomic Energy, Kyoto University. Since 1960, including his stay at the Institutt for Atomenergi, Kjeller, Norway (1971-1972) as a postdoctorate fellow of NTNF, he has been engaged in research on nuclear reactor dynamics, control, and optimization problems. His current interests include planning and optimization of nuclear energy systems and computer applications.



### ELECTROCHEMICAL EXTRACTION OF HYDROGEN FROM MOLTEN LiF-LiCl-LiBr AND ITS APPLICATION TO LIQUID-LITHIUM FUSION REACTOR BLANKET PROCESSING

*W. F. Calaway*

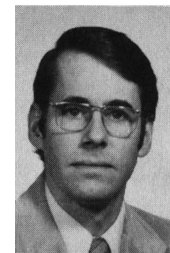
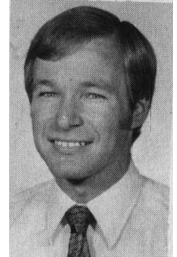
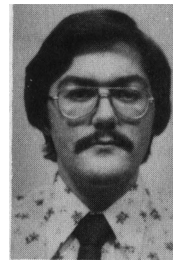
**Wallis F. Calaway** (BA, chemistry, The College of Wooster, 1970; PhD, chemical physics, Indiana University, 1975) has been an assistant research chemist in the Chemical Engineering Division of Argonne National Laboratory since 1975. His present interests include the thermodynamics and physical chemistry of liquid-metal systems, and liquid-lithium purification as applied to fusion reactor blankets.

### MATERIALS

### CORROSION AND MECHANICAL BEHAVIOR OF IRON IN LIQUID LITHIUM

**Thomas A. Whipple** (top right) (MS, metallurgical engineering, Colorado School of Mines, 1976) is an assistant engineer with Westinghouse Electric Corporation. He is interested in mechanical metallurgy and testing. **David L. Olson** (top left) (PhD, materials science, Cornell University, 1970) is associate professor at the Colorado School of Mines. He performs research in corrosion and welding metallurgy. **Walter L. Bradley** (bottom right) (PhD, materials science, University of Texas, 1969) is associate professor at Texas A&M University. He is involved with research in the areas of mechanical behavior of materials and phase transformation. **David K. Matlock** (bottom left) (PhD, materials science, Stanford University, 1972) is associate professor at the Colorado School of Mines. He performs research in mechanical metallurgy and forming processes.

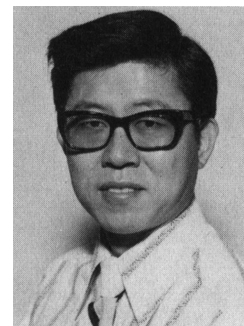
*T. A. Whipple  
D. L. Olson  
W. L. Bradley  
D. K. Matlock*



### EUROPIA AS A NUCLEAR CONTROL MATERIAL

*Paul C. S. Wu*

**Paul C. S. Wu** (PhD, metallurgy, Iowa State University, 1972) worked at Ames Laboratory from 1967 to 1972 in the areas of sodium technology and nuclear materials. He has been with the Westinghouse Advanced Reactors Division since 1972, working in the areas of liquid-metal fast breeder reactor (LMFBR) related materials development programs, especially the high-temperature mechanical behaviors of LMFBR structural alloys. His current interests are in the areas of material problems in an LMFBR fuel reprocessing plant.



**ANALYSIS OF FISSILE MATERIALS BY CYCLIC ACTIVATION OF DELAYED NEUTRONS**

**John M. Jamieson** (top) (PhD, nuclear engineering, Georgia Institute of Technology, 1976) has been chief engineer at Technical Analysis Corporation since 1974, in charge of engineering development of computer systems for various technical applications. **Geoffrey G. Eichholz** (PhD, physics, University of Leeds, 1948) is regents' professor of nuclear engineering at the Georgia Institute of Technology, where he has conducted research over a broad spectrum of radiation technology, including radiation detectors, radiotracer methodology, environmental aspects of nuclear power, and radiation effects on materials.

*John M. Jamieson*  
*Geoffrey G. Eichholz*

