

## Symposium Held on the Scientific Basis for Nuclear Waste Management

The 21st Materials Research Society (MRS) symposium on the Scientific Basis for Nuclear Waste Management was held in Davos, Switzerland, September 28–October 3, 1997. Over 300 participants from 26 countries gathered in this picturesque village in the Swiss Alps. The meeting was dedicated to the memory of Rudolf Rometsch, president of Nagra from 1978 to 1988 and a member of the National Organizing Committee for this symposium. His was a distinguished career in the field of radioactive waste management, most recently serving the French government as a foreign member of the Commission Nationale d'Évaluation des Recherches sur la Gestion des Déchets Radioactifs. Rometsch died on July 7, 1997 at the age of 79.

The conference chair, Ian McKinley, was supported by an international program committee of 24 scientists from 12 countries. Financial support was provided by Nagra (National Cooperative for the Disposal of Radioactive Waste), HSK (Swiss Federal Nuclear Safety Inspectorate) and PSI (Paul Scherrer Institute). The symposium was sponsored by MRS, European-Materials Research Society (E-MRS), the International Union of Materials Research Societies (IUMRS), Swiss Association for Atomic Energy (SVA), Swiss Federal Institute of Technology (ETH), European Nuclear Society (ENS), International Atomic Energy Agency (IAEA), Commission of European Communities (CEC), OECD Nuclear Energy Agency (NEA), and the Réunion Internationales

des Laboratoires d'Essais et de Recherches sur les Matériaux et les Constructions (RILEM).

The five-day meeting featured a single series (no parallel sessions) of 42 oral presentations in sessions on high-level waste forms, engineered barrier systems, transuranic and special wastes, geologic barriers, model testing and validation, and applications and case studies. These topics were also the subject of extensive poster presentations (over 140 posters) displayed during the entire week of the conference.

Invited speakers included M. Salvatores (CEA, France), "High-Level Nuclear Waste Management: How Physics Can Help"; S. Norrby (SKI, Sweden), "A Regulatory Authority's Needs for R&D to Develop Competence in Assessing Nuclear Waste Management Safety"; B. Grambow (Forschungszentrum Karlsruhe, Germany), "Source Terms for Performance Assessment of HLW-Glass and Spent Fuel as Waste Forms"; H-F. Beer (PSI, Switzerland), "Waste Management in a National Research Laboratory"; and W.R. Alexander (University of Berne, Switzerland), "Thorough Testing of Performance Assessment Models: The Necessary Integration of *In Situ* Experiments, Natural Analogue Studies and Laboratory Work." J. Hadermann (PSI, Switzerland) headed a team (U. Berner, M. Bradbury, and J. Pearson) who summarized and critiqued the meeting in a final presentation entitled, "Scientific Progress Toward Meeting R&D Needs: Autobahns and Wanderwegs." The proceedings from this meeting will be



*J. Caluori, Member of the Cantonal Government, Canton Graubünden, presents the Welcome Address at the 21st International Symposium on the Scientific Basis for Nuclear Waste Management in Switzerland on September 29, 1997.*

published by MRS as a continuation of its series for this symposium.

Following the conference, participants had the opportunity to go on field trips to Nagra's Grimsel Test Site, the Paul Scherrer Institute, and the Leibstadt Nuclear Power Plant.

The most innovative aspect of the meeting was a set of five parallel workshops at which interested specialists discussed specific topics in great detail. The workshop topics included High Burn-Up Spent and Mixed-Oxide Fuel, Solute Transport in Compacted Bentonite, Microbiological Effects, Waste Characterization and Classification, Cementitious Barriers and High pH Fronts in the Geosphere, and High-Level Waste/Engineered Barrier System Saturation: Rates and Effects. Summaries of these workshops will appear in the proceedings volume.

The venue of this symposium now rotates out of the United States every third year, having been held in Kyoto, Japan in 1994. The next symposium will be held at the fall meeting of MRS in Boston in 1998. In the year 2000, this symposium will be held in Sydney, Australia, two weeks before the 2000 Olympic Games!

RODNEY C. EWING



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