

FUSION FUEL CYCLES

ADVANCED FUSION FUEL CYCLES

Robert W. B. Best

Robert W. B. Best (Dr, Eindhoven University of Technology, The Netherlands, 1970) is a senior member of the theory department of the Institute for Plasma Physics (Rijnhuizen), The Netherlands. His main interests are in free electron laser research.



COLD FUSION

CALORIMETRIC MEASUREMENTS OF THE PALLADIUM/DEUTERIUM SYSTEM: FACT AND FICTION

Stanley Pons
Martin Fleischmann

Stanley Pons (top) (BS, chemistry, Wake Forest University; PhD, University of Southampton, United Kingdom) began his career at Oakland University. In 1980, he moved to the University of Alberta, Canada, and in 1983 joined the staff of the Department of Chemistry at the University of Utah, where he is currently head of the department. **Martin Fleischmann** (PhD, London University, United Kingdom, 1951) was a research fellow and Imperial Chemical Industries research fellow at Kings College (University of Newcastle-upon-Tyne, United Kingdom) and then lecturer and reader in physical chemistry from 1950 to 1967. From 1967 to 1983, he was professor of electrochemistry at the University of Southampton, where he held the prestigious chair originally endowed by the Electricity Council. Since 1989 he has been a research professor at the University of Southampton and at the University of Utah.



ELECTROLYTIC TRITIUM PRODUCTION

Edmund Storms
Carol Talcott

Edmund Storms (no photograph available) (PhD, radiochemistry, Washington University) has worked at the Los Alamos National Laboratory (LANL) for the past 32 years where his work has involved mainly high-temperature materials research for space power. His studies have included a wide range of chemical and physical properties including superconductivity with a major emphasis on thermodynamics and materials science. **Carol Talcott** (right) (MS, physical chemistry, University of Colorado, 1984) has worked at the LANL for the last 5 years. Her work has involved research on the palladium hydride-hydrogen system using all isotopes of hydrogen. In particular, the studies focused on the effect of surface contamination on kinetic uptake rates, pressure-composition isotherms, conversion of alpha to beta hydride, and diffusion of hydrogen in the beta phase.



ENHANCED FUSION INDUCED BY AFFILIATED MUONS

Paul du T. van der Merwe

Paul du T. van der Merwe (PhD, physics, University of California, Berkeley, 1965) is a theoretical physicist on the research staff of the Atomic Energy Corporation, Pretoria, South Africa. He has recently worked on collective features in light atomic systems and exotic atoms involving muons. His current research centers around muon-catalyzed fusion. Previous activities include particle physics, field theory, nonlinear science, and superfluids.



THE BEHAVIOR OF ELECTROCHEMICAL CELL RESISTANCE: A POSSIBLE APPLICATION TO COLD FUSION EXPERIMENTS

Kenneth A. Ritley
Peter M. Dull
Marc H. Weber
Michael Carroll
James J. Hurst
Kelvin G. Lynn

Kenneth A. Ritley (top right) is a member of the positron/solids interaction group in the physics department at Brookhaven National Laboratory (BNL). In addition to his recent interest in palladium-deuterium electrochemical systems, his professional interests have included models of the cohesive energy in high-temperature superconductors. He is currently investigating the application of a monoenergetic positron beam to the study of liquid metals. **Peter M. Dull** (top left) has spent a year visiting at BNL from Valparaiso University in Indiana. In addition to his recent research on cold fusion phenomena, he has recently completed a comparative study of positron moderator designs. **Marc H. Weber** (photo not available) is currently on the faculty of the University of Bielefeld, Federal Republic of Germany. In addition to work in the specular reflection of positronium, he has recently designed a system for low-level neutron emission studies and is currently interested in utilizing the high-intensity positron source for e^+H studies at BNL. **Michael Carroll** (center right) is a member of the positron/solids interaction group at BNL. His professional interests include designing and evaluating electronics for use in experimental physics, and he maintains a strong interest in the detection of gravitational radiation. **James J. Hurst** (bottom left) is a senior materials science associate in the Department of Applied Science at BNL. In addition to his recent interest in the metallurgical properties of palladium, his research interests have included studies of crystal growth. **Kelvin G. Lynn** (bottom right) is a physics group leader and head of the Applied Physics Division at BNL. His interests have included surface physics and the use of positrons in studying surface and near-surface defects. He has been actively involved with cold fusion research since the first reports of this phenomenon in March 1989.



THEORETICAL AND EXPERIMENTAL STUDIES ON THE COLD NUCLEAR FUSION PHENOMENA

Mohamed Abdel Harith
Vincenzo Palleschi
Azenio Salvetti
Giuseppe Salvetti
Dharm Pal Singh
Moreno Vaselli

Mohamed Abdel Harith (right) is a professor in the physics department at Cairo University. His interests are laser-driven shock waves in gases and water, mach reflection, spherical pinch, and cold fusion. **Vincenzo Palleschi** (left) (physics, Pisa University, Italy, 1984) is a researcher at the Istituto di Fisica Atomica e Molecolare (IFAM)-CNR. His interests are first passage time problems in bistable potentials, applications of the Fokker-Planck equation to stochastic physics, and experimental studies of shock

