

PROGRAM

Wednesday, March 28, 1990

7:00 p.m. - **REGISTRATION and RECEPTION**
9:00 p.m.

Thursday, March 29, 1990

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7:00-8:30 a.m. **REGISTRATION**

8:30 **OPENING COMMENTS**
F.G. Will, Director
H. Rossi, Conference Chair
National Cold Fusion Institute (NCFI)

WELCOME
I. Cumming
Chair, Board of Trustees
NCFI

Session Chair: **H. Rossi**
University of Utah/NCFI

8:45	Calorimetry of the Palladium-Deuterium Systems S. Pons and M. Fleischmann University of Utah/NCFI	1
9:30	Calorimetry and Electrochemistry in the D/Pd System M.C.H. McKubre , R.C. Rocha-Filho, S. Smedley, F. Tanzella, *J. Chao, *B. Chexal, *T. Passell, and *J. Santucci Stanford Research Institute *Electric Power Research Institute	20
10:00	Anomalous Calorimetric Results During Long-Term Evolution of Deuterium on Palladium from Alkaline Deuterioxide Electrolyte A.J. Appleby, Y.J. Kim, O.J. Murphy , and S. Srinivasan Texas A&M University	32
10:30	Break	
10:40	Initial Calorimetry Experiments in the Physics Division at ORNL <i>(Paper not submitted)</i> D.P. Hutchinson , C.A. Bennett, R.K. Richards, J. Bullock IV, and G.L. Powell Oak Ridge National Laboratory	
11:00	Recent Measurements of Excess Energy Production in Electrochemical Cells Containing Heavy Water and Palladium M. Schreiber , T.M. Gür, G. Lucier, J.A. Ferrante, J. Chao* and R.A. Huggins Stanford University *Electric Power Research Institute	44

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11:20	Quartz Crystal Microbalance Study of Palladium/Hydrogen Interactions G.T. Cheek and W.E. O'Grady Naval Research Laboratories	57
11:40	Investigation of Nuclear Processes in Deuterated Metals <i>(Paper not submitted)</i> J. Santucci Electric Power Research Institute	
12:00	Lunch Break	
Session Chair:	J. O'M. Bockris Texas A&M University	
1:30	Overview of BARC Studies in Cold Fusion P.K. Iyengar and M. Srinivasan Atomic Energy Commission, Bombay, India	62
2:15	Experimental Considerations in Electrochemical Isoperibolic Calorimetry T.M. Gür, M. Schreiber, G. Lucier, J.A. Ferrante, J. Chao* and R.A. Huggins Stanford University *Electric Power Research Institute	82
2:35	Theoretical Ideas on Cold Fusion G. Preparata University of Milan, Italy	91
3:20	Status of Coherent Fusion Theory P.L. Hagelstein Massachusetts Institute of Technology	99
3:40	Quantum Mechanics of "Cold" and "Not-So-Cold" Fusion S.R. Chubb and T.A. Chubb Naval Research Laboratories	119
4:00	Dinner Break	
4:15-6:00	Guided Tours of National Cold Fusion Institute (sign-up sheets at the conference registration desk) (walk east of hotel five minutes to 390 Wakara Way)	
Session Chair:	J. Brophy University of Utah	
7:30	Nuclear Energy in an Atomic Lattice J. Schwinger, Nobel Laureate UCLA	130
8:15	Adjourn	

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Session Chair: R. Huggins Stanford University	
8:15 a.m. Does Tritium Form at Electrodes by Nuclear Reactions? J. O'M. Bockris, G.H. Lin, R.C. Kainthla, N.J.C. Packham, and O. Velev Texas A&M University	137
9:00 A Study of Electrolytic Tritium Production E. Storms and C. Talcott Los Alamos National Laboratory	149
9:45 The Initiation of Excess Power and Possible Products of Nuclear Interactions During the Electrolysis of Heavy Water C.D. Scott, J.E. Mrochek, T.C. Scott, G.E. Michaels E. Newman, and M. Petek, Oak Ridge National Laboratory	164
10:30 Panel Discussion - Thermal Phenomena F.G. Will, Moderator J. O'M. Bockris M. Fleischmann R. Huggins M. McKubre S. Pons E. Yeager	
11:30 Lunch Break	
Session Chair: H. Menlove Texas A&M University	
1:30 Cold Nuclear Fusion in Condensed Matter: Recent Results and Open Questions (Paper not submitted) S. Jones Brigham Young University	
2:05 Search for Nuclear Phenomena by the Interaction between Titanium and Deuterium F. Scaramuzzi, F. D'Amato, A. DeNinno, P. Zeppa, C. Pontorieri, F. Lanza ENEA, Rome, Italy	170
2:15 Statistical Analysis of Neutron Emission in Cold Fusion Experiments M. Srinivasan, A. Shyam, S.B. Degwekar, and L.V. Kulkarni Bhabha Atomic Research Center, Bombay, India	175

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	<u>Friday, March 30, 1990 (continued)</u>	
3:00	The Effect of Velocity Distribution and Electron Screening on Cold Fusion R.A. Rice, G.S. Chulick, and Y.E. Kim Purdue University	185
	Surface Reaction Mechanism and Lepton Screening for Cold Fusion with Electrolysis Y.E. Kim Purdue University	194
3:30	Break	
3:40	On Aspects of Nuclear Products G.H. Miley, M.H. Ragheb and H. Hora University of Illinois	202
4:00	Isotopic Mass Shifts in Cathodically-Driven Palladium via Neutron Transfer Suggested by a Transmission Resonance Model to Explicate Enhanced Fusion Phenomena (Hot and Cold) within a Deuterated Matrix R.T. Bush California State Polytechnic University	213
4:20	A Zero Gradient Calorimeter for the Measurement of Anomalous Heat from the Electrolysis of Deuterated Metals L.J. Droege and T.F. Droege Black Hawk, CO and Batavia, IL	229
4:40	Electric Field Distribution of the Palladium Crystal Lattice K.J. Bunch and R.W. Grow University of Utah/NCFI	243
5:00	Session Adjourns	
6:00-7:30	Buffet Reception Remarks by the Governor of Utah The Honorable Norman S. Bangerter Hosted by Leucadia National Corporation Dessert provided by Mrs. Fields Cookies Home office located in Park City, Utah	

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Session Chair:	S. Jones Brigham Young University	
7:30	High-Sensitivity Measurements of Neutron Emission from Ti Metal in Pressurized D₂ Gas H. Menlove Los Alamos National Laboratory	250
8:15	Technical Status of Cold Fusion Results D. Worledge EPRI	252
8:35	Adjourn	
<u>Saturday, March 31, 1990</u>		
Session Chair:	M. Fleischmann University of Utah/NCFI	
8:15 a.m.	Tritium Measurements and Deuterium Loading in D₂O Electrolysis with a Palladium Cathode R.R. Adzic, D. Gervasio, I. Bae, B. Cahan and E. Yeager Case Western Reserve University	261
9:00	Anomalies in the Surface Analysis of Deuterated Palladium D. Rolison, W.E. O'Grady, R.J. Doyle, Jr., and P.P. Trzaskoma Naval Research Laboratories	272
9:45	Anomalous Effects of Deuterated Metals <i>(Scheduled but not presented)</i> T. Schneider EPRI	
10:30	Panel Discussion - Nuclear Phenomena H. Rossi, Moderator J. O'M. Bockris S. Jones T. Schneider C.D. Scott E. Storms N. Hoffman	
11:30	Lunch Break	

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Session Chair:	E.B. Yeager Case Western University	
1:20	On Empirical System ID, Possible External Electromagnetic/Electronuclear Stimulation/Actuation and Automatic Feedback Control of Cold Fusion R.W. Bass Thousand Oaks, CA	281
1:40	An Investigation of Cold Fusion In Thin Titanium Films <i>(Paper not submitted)</i> G. Chambers, G. Hubler, and K. Grabowski Naval Research Laboratory	
	Reformulation of the Cold Fusion Problem: Heterogeneous Nucleation - A Likely Cause of the Irreproducibility and Intermittency of Cold Fusion Observations P.H. Handel University of Missouri	288
	A New Theoretical Model (Nu-Q*) for Rationalizing Various Events of "Cold Fusion" in Deuterium Loaded Palladium Cathodes G. Andermann University of Hawaii	295
2:00	Some Observations Related to the Presence of Hydrogen and Deuterium in Palladium D.R. Coupland, M.L. Doyle, J.W. Jenkins, J.H.F. Notton, R.J. Potter, and D.J. Thompson Johnson-Matthey Technology Centre	299
2:20	Three Dimensional Computer Simulation of an Iso-peribolic Calorimeter for Cold Fusion Experiments J. Chao*, W. Layman*, C.M. Kang, T.M. Gür, M. Schreiber, R. Huggins, G. Lucier, and J. Ferrante Stanford University *Electric Power Research Institute	308
2:40	Break	
Session Chair:	F.G. Will NCFI	
2:45	Metallurgical Aspects in Cold Fusion Experiments S. Guruswamy and M.E. Wadsworth University of Utah/NCFI	314
3:05	Electrochemical Calorimetric Studies of the Cold Fusion Effect M.H. Miles, K.H. Park and D.E. Stilwell Naval Weapons Center	328

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3:25	Thoughts on Warm Fusion vs Cold Fusion Y.-C. Cheng, W-Y.P. Hwang, and S.N. Yang National Taiwan University	335
3:45	An Overview of Cold Fusion Phenomena M. Fleischmann University of Utah/NCFI	344