

Oral Presentation

Opening Session:

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Opening / Special Lecture

CMNS Research; Past, Present and Future (40)

Michael McKubre (Seashore Research, USA)

Present Status of Hydrogen Energy Policy in Japan (40)

Takao Kashiwagi (Tokyo Institute of Technology, Japan)

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Session I: Heat Production 1

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Progress over the years

Anomalous Heat Effects by Interaction of Nano-Metal and H(D)-Gas (25)

Akito Takahashi (Technova Inc., Japan)

Improved stability and performance of surface-modified Constantan wires, by chemical additions and unconventional geometrical structures (25)

Francesco Celani (INFN-LNF, Italy)

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Session II: Heat Production 2

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Gas Phase I

MFMP \*GlowStick\* series, a high temperature experiment platform (20)

Alan Goldwater (Martin Fleischmann Memorial Project, USA)

Controlled Electron Capture: Enhanced Stimulation and Calorimetry Methods (20)

Francis Tanzella (SRI International, USA)

Validation of Brillouin Energy Corporation: Hydrogen Hot Tube Experiments (20)

Michael Halem (LENR-Invest LLC, USA)

Anomalous Excess Heat Generated by the Interaction between Nano-structured Pd/Ni surface and D<sub>2</sub>/H<sub>2</sub> gas (20)

Takehiko Itoh (Tohoku University and Clean Planet Inc, Japan)

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Session III: Unusual Intermediate State / Probe for Heat Production

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Synthesis of an Iron Pico-Hydride (Fe-pH). A permanent electric dipole of atomic size with high enthalpy of formation (20)

Jacques Dufour (S\*PIC\*E, France)

Rydberg matter and Low Energy Nuclear Reactions (20)

Sveinn Ólafsson (University of Iceland, Iceland)

Progress in Development of a Power Source Based on Low Energy Nuclear Reactions (LENRs) (20)

George Miley (University of Illinois, USA)

Phonon Gain Heralds Successful Cold Fusion (20)

Mitchell Swartz (Nanortech, Inc., USA)

Fluorescence Based Temperature Sensor for In-Situ Sub-Micron Heat Detection on D/H-Loaded Palladium Electrode Surfaces (20)

Sangho Bok (University of Missouri, USA)

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#### Session IV: Heat Production 3

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Gas Phase II

Collaborative Examination on Anomalous Heat Effect Using Nickel-Based Binary Nanocomposites Supported by Zirconia (25)

Akira Kitamura (Technova Inc., Japan)

Replication Experiments at Tohoku University on Anomalous Heat Generation Using Nickel-Based Binary Nanocomposites and Hydrogen Isotope Gas (25)

Yasuhiro Iwamura (Tohoku University, Japan)

Investigations of Pd/D<sub>2</sub> in Zeolite Systems (20)

Iraj Parchamazad (University of La Verne, USA)

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#### Session V: Stimulation

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Ultrasonic / Laser / Discharge

Electromagnetic Resonance in a Piezo Antenna Produces Heat and Tritium (20)

Roger Stringham (First Gate Energies, USA)

Facility for studies with vibrating metal plates (15)

Florian Metzler (Massachusetts Institute of Technology, USA)

Spectroscopy Analysis of Laser Abrasion and Laser Cavitation Induced by Pulse Laser (20)

Hitoshi Soyama (Tohoku University, Japan)

Plasmonic Concepts for Condensed-Matter Nuclear Fusion (20)

Katsuaki Tanabe (Kyoto University, Japan)

Helium Production in Plasma Arc Discharge: Successful Replication of Wendt & Irion Tungsten Wire Explosion (15)

Max Fomitchev-Zamilov (Quantum Potential Corporation, USA)

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Session VI: Theoretical Studies 1

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Models for quantum mechanical composites, and the coupling between the center of mass and relative degrees of freedom (20)

Peter Hagelstein (Massachusetts Institute of Technology, USA)

Catalytic mechanism of LENR in quasicrystals based on localized anharmonic vibrations and phasons (20)

Volodymyr Dubinko (Kharkov Institute of Physics and Technology, Ukraine)

Formation of Coherent Correlated States as the Universal Method of Explanation of LENR Paradoxes and Solving of LENR Problems (20)

Vladimir Vysotskii (Kiev National Shevchenko University, Ukraine)

Interactions of both protons and deuterons with valence d-electrons in transition metals (20)

Dimiter Alexandrov (Lakehead University, Canada)

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Session VII: Transmutation

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Observation of  $^{141}\text{Pr}$  by  $^{40}\text{Ar}$  scattering (RBS) on Cs implanted Pd/CaO multi-layer foil with  $\text{D}_2$  gas permeation (20)

Jirohta Kasagi (Tohoku University, Japan)

Evidence for Nuclear Transmutations in Ni-H Electrolysis (20)

K P Rajeev (Indian Institute of Technology Kanpur, India)

Biotransmutation of  $\text{Cs}^{133}$  and Biodeactivation of  $\text{Cs}^{137}$  by Aerobic Microorganisms of Methanogenic Sea Ooze (20)

Vladimir Vysotskii (Kiev National Shevchenko University, Ukraine)

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Session VIII: Theoretical Studies 2

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Unconventional Nuclear Model /Exotic Particle / New approach

Nuclear Structure Aspects of Low-Energy Nuclear Reactions (LENR) (20)

Norman D. Cook (Kansai University, Osaka, Japan)

Role of the magnetic monopole as the catalyst in the cold nuclear fusion reaction (20)

Tetsuo Sawada (Nihon University, Tokyo, Japan)

A new approach to Entropy, heat and order (20)

Jean-Francois Geneste (France)

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#### Session IX: Heat Production 4

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Electrolysis

Nickel and Light Water Electrolysis Experiments (20)

David Nagel (The George Washington University, USA)

Effects of Cathode Pretreatment and D/Pd on Excess Heats in Closed Pd | D<sub>2</sub>O+D<sub>2</sub>SO<sub>4</sub>  
Electrolytic Cells (20)

Wu-Shou Zhang (Chinese Academy of Sciences, China)

ICARUS 9 Replication (20)

Jean-Paul Biberian (Aix-Marseille University, France)

Features of the Fleischmann-Pons Isoperibolic Calorimetry (20)

Melvin H. Miles (University of La Verne, USA)

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#### Session X: Bombardment

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Deuteron Beam / X-ray / Super Jet

Enhancement of the DD Fusion Yield: Experimental Evidence for Interplay between  
the Threshold Resonance and the Electron Screening Effect (25)

Konrad Czernski (University of Szczecin, Poland)

Low-energy cooperative DD collision in liquid metal and electron screening effect (15)

Yuki Honda (Tohoku University, Japan)

X-ray, neutron, and charged particle emission under X-ray irradiation of deuterated structures (25)

Aleksei Rusetskii (Lebedev Physical Institute, Russia)

Primitive experimental tests toward futural cold fusion engine based on point-  
compression due to supermuit-jets colliding with pulse (Fusine) (20)

Ken Naitoh (Waseda University, Japan)

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#### Session XI: Theoretical Studies 3

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Electron Deep Orbit / Others

Advance on Electron Deep Orbits of the Hydrogen Atom for LENR (20)

Jean-Luc Paillet (Aix-Marseille University, France)

Implications of the electron deep orbits for cold fusion and physics (20)

Andrew Meulenberg (Science for Humanity Trust, Inc., USA)

Deep States from the Schrodinger Equation and Experimental Verification (20)

Trey Morris (Pennsylvania State University, USA)

Physical Model of Energy Fluctuation Divergence (15)

Ken-ichi Okubo (Kyoto University, Japan)

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Session XII: Material / Applications / Others

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Hyperfine Interactions in Pd foils during D/H electrochemical loading (20)

Graham Hubler (University of Missouri, USA)

Stabilization of Nano-Size Pd Particles under Hydrogen Atmosphere (20)

Tatsumi Hioki (Nagoya University, Japan)

Calorimetric study of hydrogen absorption in nanocomposite materials prepared from  $\text{Pd}_x\text{Ni}_{30-x}\text{Zr}_{65}$  ( $0 \leq x \leq 35$ ) amorphous alloys (15)

Emanuele Marano (University of Turin, Italy)

Technology of Processing and Conditioning Uranium and Plutonium Fission Products and Liquid Radioactive Waste (20)

Igor Goryachev (Russian Academy of Sciences, Russia)

Responsibilities of U.S. Government Agencies for Support of Low Energy Nuclear Reactions (15)

Thomas Grimshaw (The University of Texas at Austin, USA)

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