

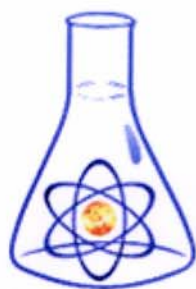
ICCF -13

**DAGOMYS,
city of SOCHI
June 25 – July 1,
2007**

**INTERNATIONAL SOCIETY OF CONDENSED MATTER
NUCLEAR SCIENCE
RUSSIAN PHYSICAL SOCIETY
NUCLEAR SOCIETY OF RUSSIA
RUSSIAN COMMITTEE ON BALL LIGHTNING
PROBLEMS**



**International Conference on
Condensed Matter Nuclear
Science**



**PROGRAM
AND
ABSTRACTS**

ICCF13 Abstracts (with Authors and Titles)

Analysis and Diagnostic Techniques (AD)

1. Y.N. Bazhutov, Y.V. Kozlov, V.P. Martemiyarov, E.V. Pletnikov, A.A. Sabelnikov, et al., "New Results on Cosmic Ray Events Search Received on the Scintillation Spectrometric Telescope "DOCH-4M" during (2001-2006)" (AD-1) -----22
2. P. Clauzon, J.F. Fauvarque, G. Lalleve, F. Le Buzit, "A Steam Calorimeter for the Study of the Abnormal Excess Heat observed during Mizuno-Type Experiments" (AD-2) -----23
3. V.A. Kirkinskii, A.I. Khmelnikov, "Setup for Measuring of Energy Balance at Interaction of Metals and Hydrogen Isotopes Gas at High Temperatures and Pressures" (AD-3) -----25
4. S. Jiang, "Tritium released from Interior's Earth: Evidence for Natural Nuclear Fusion" (AD-4) -----26
5. V.J. Velikodnyj, S.V. Gavrilov, V.G. Grishin, J.A. Popov, "Research of Work of the Plasma-Electrochemical Steam and Gas Generator" (AD-5) -----27
6. L.V. Gorjachev, V.L. Karyaka, M.M. Martynyuk, N.V. Samsonenko, "The Impulse Electrical Breakdown of the Distilled Water with the Micron Distances between Deuterized Titanium Electrodes" (AD-6) -----28
7. L.P. Chernov, Yu.M. Koroteev, V.M. Silkin, Yu.L. Tyurin, "Excitation of Hydrogen Subsystem in Metals by External Influence" (AD-8) -----29
8. I.P. Chernov, Y.P. Cherdantsev, A.M. Lider, N.N. Nikitenkov, G.V. Garanin, "Thermal and Isotope Effects during Titanium Electrolytic Charging by Hydrogen in Cells with the Divided Volume and Use of Track-Etched Polymeric Membranes" (AD-7)-----

Processes in Gaseous and Plasma Media (1 -GP – Oral)

1. A.B. Karabut, "Characteristics of X-ray Emission from Solid-State Cathode Medium in Electric Discharge Systems" (GP-1) -----32
2. A.G. Krivshich, G.D. Shabanov, B.YU. Sololovsky, O.M. Zharebtsov, "Classical Cold Synthesis whether It exists?" (GP-2)-----33
3. G.D. Shabanov, A.G. Krivshich, B.YU. Sokolovsky, O.M. Zharebtsov, "The Nature of Ball Lighting" (GP-3) -----34
4. D.V. Bychkov, V.L. Bychkov, "Ball Lighting Observation Properties

(Modern Analysis) (GP-4) -----35

5. V.L. Bychkov, "Unipolar Ball Lightning Theory" (GP-5) -----36

6. D.V. Bychkov, V.L. Bychkov, "Modern Realization of Laboratory Ball Lightenings (Modern Analysis)" (GP-6) -----37

7. A.I. Nikitin, A.M. Velichko, T.F. Nikitina, "The Possibilities for the Formation of the Ordered Plasma Structures in Nature" (GP-7) -----38

8. V.A. Bityurin, V.Y. Velikodnyy, L.A. Samuolis, E.B. Kolesnikov, V.V. Popov, "Researches of Interaction of Long-Living Plasma Formations with Supersonic Stream and Barrier" (GP-8) -----39

9. V.L. Bychkov, V.A. Krivitsky, V.V. Nizovtsev, "Classification: Approaches to Anomalous and Geophysical Phenomena" (GP-9) -----40

10. A.N. Vlasov, B.I. Kolotilin, S.A. Kolesnikov, A.B. Manoshkin and V. Panin, "Experimental Researches of Electrical Explosion of the Wire Spiral turned in the Torus and Dipped in Water" (GP-10)-----41

11. Yu.T. Sinyapkin, D.Yu. Sinyapkin, "On Issue of Spatial Distribution of Electrical Explosion Products of Single Wire" (GP-11) -----42

12. G.P. Schelkunov, L.M. Olikhov, "Globe Lightning Modeling and Application" (GP-12) -----44

Excess Heat and Related Nuclear Products (1-HP – Oral)

1. Y.N. Bazhutov, V.G. Grishin, A.V. Ereemeev, N.L. Khokhlov, A.P. Koshelev, et al., "Neutrons, Rays and Tritium Diagnostic at Electrolysis with Anode Gas discharge in Water Solutions" (HP-1) -----46

2. J.-P. Biberian, N. Armanet, "Excess Heat Production during D₂ Diffusion through Palladium" (HP-2) -----47

3. F. Celani, A. Spallone, E. Righi et al., "Studies about Palladium Nano particles Synthesis for deuterium Absorption at High Temperatures" (HP-3) -----48

4. W.-S. Zhang and J. Dash, "Excess Heat Reproducibility and Evidence of Anomalous Elements after Electrolysis in Pd/D₂O+H₂SO₄ Electrolytic Cells" (HP-4) -----51

5. H. Kozima, W.S. Zhang and J. Dash, "Precision Measurement of Excess Energy in Electrolytic System Pd/D/H₂SO₄ and Inverse-Power Distribution of Energy Pulses vs. Excess Energy" (HP-5) -----52

6. A.B. Karabut, "Excess Heat Power Registration in High Voltage Electrolysis and Discharge Systems" (HP-6) 53

7. A.I. Koldamasov, N.J. Bakumtsev, "Development of Multi-Purpose Installations for Energy Generation by Way of Cold Nuclear Synthesis" (HP-7) -----54
8. A. Lipson, A. Roussetski, G.H. Miley, "Proofs of Nuclear Origin of CMNS Effects in Metals with a High Deuterium Solubility" (HP-8) -----55
9. M McKubre, F. Tanzella, V. Violante et al., "Replication of Enegetics Heat and Tritium Production" (HP-9) -----57
10. A.G. Parkhomov, "Bursts of Count Rate of Beta-Radioactive Sources during Long-Term Measurements" (HP-10) -----58
11. A.V. Pinaev, "The Analysis of Test Data of Cavitational Heat Generator of TMK-25 Type" (HP-11) -----59
12. I.B. Savvatimova, A.A. Kornilova, G.V. Savvatimov, "The Gamma Emission during and After Experiments with Tungsten in Deuterium Glow Discharge" (HP-12) -----60
13. J. Tianjian, L.H. Jin, B.J. Shen, C.Y. Wang, J.W. Guo, "Calorimetry in Pt/K₂CO₃/Pd Light Water Electrolysis System" (HP-13) -----61
14. S.A. Tsvetkov, "Excess Heat while Saturation of Titanium by Deuterium and Air Mixture" (HP-14) -----63
15. V. Violante, F. Sarto, L. Castagna et al., "Calorimetric Results of ENEA Cooperative Experiments" (HP-15) -----64
16. H Yamada and S. Nagao, "Large Change in Isotopic Ration of Li with Anomalous ⁶LiH Formation by Light Water Electrlysis" (HP-16) -----65
17. T. Zilov, I. Dardik, H. Branover et al., "Report on Electrolysis Experiments at Energetics Technologies" (HP-17) -----66

Innovative Engineering and Proiects (IP)

1. R.F. Cantwell, S.S. Booth, M.L. McConnell, "A Flow Calorimeter for Glow Discharge Experiments" (IP-1) -----68
2. V.A. Krivitsky and F.A. Gareev, "Purposeful Synthesis of Chemical Elements" (IP-2) -----69
3. M.S. Godin, B.U. Rodionov, I.B. Savvatimova, "Inspection Methode to Check Quality of Nuclear Transmutation Media" (IP-3) -----70
4. T. A. Chubb, "Cold Fusion Heaters" (IP-4) -----71
5. G.V. Tarasenko, "The Capacitor Battery" (IP-5) -----72
6. M.D. Berkova, A.A. Bikov, V J. Velikodnyi, et al., "Plasma Technolgies and Ecology Problems" (IP-6) -----73

7. Y.N. Bazhutov, A.A. Bik9v, V.J. Velikodnyj, V.G. Grishin, V.V. Popov, "Cyclonic Cavitational Generator" (IP-7) -----74

8. I.V. Goryachev and I.N. Goryacheva, "Advanced Projects of Energy Generating Units" (IP-8) -----

Materials and Conditions (MC-Oral)

1. E. Castagna, V. Violante, C. Sibilia, F. Sarto, "Surface Plasmons Excitation on Metal and Metal Hydrides Surfaces" (MC-1) -----76

2. J. Kasagi, "Interplay between deuteron and Host Atoms in Metal Deduced from Low-Energy Beam Experiments" (MC-2) -----77

3. A. Lipson, A. Roussetski, B. Lyakhov, E. Saunin, A. Tsivadze, "Novel High D-loading/High D-Diffusivity Pd-based Cathode Materials as a Potential Media to Enhance Low Energy Nuclear Reactions" (MC-3) -----78

4. R. Kuzmin and P. Serov, "Luminescence of Micro-Bubbles from Liquids" (MC-4) -----80

Nuclear Transmutation (NT-Oral)

1. J. Dash, "Evidence of Nuclear Transmutation after Loading Metals with Hydrogen and/or Deuterium" (NT-1) -----82

2. Y. Iwamura, T. Itoh and N. Yamazaki, et al., "Transmutaion Reactions induced by D₂ Gas Permeation Through Pd Complexes (Pd/CaO/Pd) (NT-2) -----83

3. V.I. Vysotskii, A.A. Kornikova, A.B. Tashyriy, "Detailed Investigation of Memory Phenomena in Water and Study of Isotopes Transmutation in Growing Biological Systems containing Activate Water " (NT-3) -----84

4. D.Y. Chung and J. Lindesay, "Resonance Tunneling in Glow Discharge Experiments" (NT-4) -----86

5. I.B. Savvatimova, "Isotopes Transmutations after Irradiation of Tungsten by Low-Energy deuterons" (NT-5)-----87

6. T. Hioki, N. Takahashi and T. Motohiro, "XPS Study on Surface Layer Elements of Pd/CaO Multilayer Complex with and without deuterium Permeation" (NT-6) -----88

Social. Political. and Philosophical Issues (SP)

1. S.B. Krivit, "From Cold Fusion to Low Energy Nuclear Reactions 2007 Review" (SP-1) -----90

2. Y.N. Bazhutov, I.V. Goryachev, "From Cold Fusion Towards Nuclear Transmutation – Probable Alternative for Nuclear Energy" (SP-2) -----91
3. W. Collis, "Presentation of the 8th International Workshop on Anomalies in Hydrogen / Deuterium Loaded Metals" (SP-3) ----
4. G.H. Miley, "Preparata Medal Lecture - A Tribute to Giuliano Preparata, A True Pioneer in Cold Fusion Theory" (SP-4) -----92

Theoretical Models and Results Interpretation (1,2-TM)

1. D.D. Afonichev, "Mechanism of Low Energy Nuclear Reactions in Metals" (TM-1) -----94
2. A. Takahashi and N. Yabuuchi, "Condensed Matter Nuclear Effects under Platonic Symmetry" (TM-2) -----95
3. A. Takahashi and N. Yabuuchi, "Deuterons-to-⁴He Channels" (TM-3) -----96
4. D. Alexandrov, "Effective Electrical Charge in Disordered Semiconductors" (TM-4) -----97
5. Y.N. Bazhutov, "Possible Generation of Neutrons Bursts in Framework of Erzion Model and Their Possible Registration" (TM-5) -----99
6. I.U. Chaudhary and P.L. Hagelstein, "Nuclear Wavefunctions, Matrix Elements and Coupled Channel Equations based on Symmetric Group Construction" (TM-6) -----100
7. S.R. Chubb, "Resonant Electromagnetic Interaction (EMI) in Low Energy Nuclear Reactions (LENR)" (TM-7) -----101
8. W. Collis, "The Interaction of Erzions with Natural Isotopes" (TM-8) -----102
9. D.Y. Chung, T.K.T. Hsien and F. Senftle, "Use of a Quantum Mechanical Tunneling Model to Explain the Glow Discharge (GD) Characteristic of an I-V Curve" (NT-9) -----103
10. S.L. Doubkov and N.V. Samsonenko, "On the Bounded States of the Two-Body Problem for Purely "Magnetic" Interaction" (TM-10) -----104
11. M. Fukuhara, "Theory of Cold Nuclear Transmutaiton" (TM-11) -----105
12. F.A. Gareev, G.F. Gareeva and I.E. Zhidkova, "New Discovery: Quantization of Atomic and Nuclear Rest Mass Differences" (TM-12) -----106
13. A.I. Goncharov and V.A. Kirkinskii, "Theoretical Estimation of D-D Fusion Reactions Rates in Deuterated Palladium" (TM-13) -----107
14. L. Hagelstein and I.U. Chaudhary, "Progress on Phonon Exchange

- Models for Excess Heat in Metal deuterides" (TM-14) -----108
15. X. Jiang and L. Han, "Anomalous Nuclear Reactions Created by Torsion Field within Electrochemical Systems" (TM-15) -----109
 16. J.C. Fisher, "Polyneutron Theory" (TM-16) -----110
 17. L.I. Kholodov, I.V. Goryachev, "About the Features of Lepton Terletski Quadriga in Electromagnetic Vacuum" (TM-17) -----111
 18. V.A. Kirkinskii, "Estimation of Geofusion Probability" (TM-18) -----112
 19. H. Kozima, "Physics of the Cold Fusion Phenomenon" (TM-19) -----113
 20. R.W. Kuhner, "The Extended Micro Hot Fusion Scenario" (TM-20) -----114
 21. X.Z. Li, Q.M. Wei and B. Liu, "Selective Resonant Tunneling Model for Lattice Confined Deuterons" (TM-21) -----116
 22. A. Meulenberg and K.P. Sinha, "Proton/Phonon-aided Low-Energy Nuclear Reactions in Condensed Matter" (TM-22) -----117
 23. G.H. Miley, A. Lipson, N. Luo, H. Hora and P.J. Sherestha, "Cluster Reactions in LENRS" (TM-23) -----118
 24. G.H. Miley, L.P.G. Forsley, P.A. Mosier-Boss, "Issues for Charged-Particle and X-ray Emission in LENR Experiments" (TM-24) -----119
 25. V.D. Kuznetsov and G.V. Mishinsky, "Phenomenological Model of Transmutation and Element Distribution in Transmutation Products" (TM-25) -----120
 26. D.J. Nagel, "Rates for Low Energy Nuclear Reactions at Surfaces" (TM-26) -----121
 27. O.N. Repchenko, "The Conception of Nuclear Forces in Field Physics" (TM-27) -----122
 28. B.U. Rodionov, O.G. Kudrjavtzev and V.V. Botvinovsky, "Nuclear Transmutations at Meteorology" (TM-28) -----123
 29. N.V. Samsonenko and S.L. Doubkov, "On the Possibility of the Dineutron Existence and the Difficulties of it's Experimental Detection" (TM-29) -----124
 30. N.V. Samsonenko, "Fundamental Interactions and Their Relative Contribution to the Nuclear Reactions at Low Energy" (TM-30) -----125
 31. A.V. Shestopalov, "Cold Nuclear Fusion Mechanism at Crack Tip Spearheads Located Deep under the Ground" (TM-31) -----126
 32. K.-I. Tsuchiya, S. Sasabe and M. Ozaki, "Many-body Effects of Bose Particle System in Solid" (TM-32) -----127
 33. A.N. Vlasov, "Possible Catalysis of Nuclear Transmutations at Electronic

Screening of Nucleus Charges in the Dense Low-Temperature Plasma of the
Powerful Pulsing Induction Discharge" (TM-33) -----128

34. N. Yabuuchi and A. Takahashi, "Form of Nuclear Fusion in Solid
Crystals" (TM-34) -----129