

Time	SUNDAY 24 June	MONDAY 25 June	TUESDAY 26 June	WEDNESDAY 27 June	THURSDAY 28 June	FRIDAY 29 June
8:45		Session 1 <i>Thermodynamics & Kinetics</i>	Session 5 <i>Metallic Glasses</i>	Session 9 <i>Mechanochemistry</i>	Session 11 <i>Ceramics – Flame Synthesis</i>	Session 15 <i>Mechanochemistry- Ceramics</i>
10:15		Break	Break	Break	Break	Break
10:35		Session 2 <i>Mechanical Behavior</i>	Session 6 <i>Nanocomposites</i>	Session 10 <i>Magnetic Properties</i>	Session 12 <i>Synthesis & Processing</i>	Session 16 <i>Hydrogen Storage & Electrochemistry</i>
12:20		Lunch	Lunch	Lunch (11:50)	Lunch	End
14:00		Session 3 <i>Thermodynamics & Kinetics</i>	Session 7 <i>Mechanical Behavior</i>	Excursion (13:30!)	Session 13 <i>Thermodynamics & Kinetics</i>	
15:35		Break	Break		Break	
15:50		Session 4 <i>Mechanochemistry Mech. Alloying</i>	Session 8 <i>Synthesis & Processing</i>		Session 14 <i>Magnetic Properties</i>	
17:35	Registration & Reception (17:30) U. of Michigan Museum of Art	Poster Session Pendleton Room	Poster Session Pendleton Room			
19:30					Banquet Michigan League	

ISMAMAM 2001 – PROGRAM

<i>Sunday, 24 June</i>	
17:30	Reception and registration, University of Michigan Museum of Art

Oral sessions will be held in the Ballroom, Michigan Union, 530 South State Street
 Key: invited talk: I-#-# ; “keynote” talk: K-#-#; oral presentation: O-#-#; poster: P-#-#.

<i>Monday, 25 June</i>		
Session 1: <i>Thermodynamics & Kinetics</i>		Chair: J. H. Perepezko
8:45		Opening remarks
9:00	I-1-1	Transformations in Primary Crystallites in (Fe,Ni)-Based Glasses <i>A. L. Greer and I. T. Walker</i>
9:30	O-1-2	Generation and Annihilation of Nano-Crystalline Nucleus in Undercooled Pd-Cu-Ni-P Particle <i>Nobuyuki Nishiyama and Akihisa Inoue</i>
9:45	O-1-3	Unique Arrhenius Behavior of Diffusion Around the Glass Temperature after Reversible Structural Long-Time Relaxation of a ZrTiCuNiBe Bulk Glass <i>Th. Zunkley, V. Naundorf, M.-P. Macht and G. Frohberg</i>
10:00	O-1-4	A Combined ASAXS and SANS Study of Composition Fluctuations in the Demixed Supercooled Liquid State of Zr ₄₁ Ti ₁₄ Cu _{12.5} Ni ₁₀ Be _{22.5} <i>A. Hoell, A. Wiedenmann, J.P. Simon, F. Bley, A. Mazuelas and P. Boesecke</i>
10:15		Break
Session 2: <i>Mechanical Behavior</i>		Chair: M. L. Falk
10:35	I-2-1	Some Unresolved Issues Concerning Mechanical Behavior of Nanocrystalline Metals <i>J. R. Weertman</i>
11:05	I-2-2	High-Strength Nanocrystalline Mg-Based Alloys <i>Akihisa Inoue</i>
11:35	O-2-3	Nanocrystalline Al-Base Alloy for Elevated Temperature Applications <i>S. Purushotham and A.K. Ghosh</i>
11:50	O-2-4	Evidence of Dynamic Recrystallization in Nanocrystalline Zinc Obtained by Cryomilling <i>X. Zhang and C. C. Koch</i>
12:05		Symposium photograph , main entrance to Michigan Union
12:20		Lunch break

Session 3: <i>Thermodynamics & Kinetics</i>		Chair: U. Köster
14:00	I-3-1	Nanostructured Metastable β -Titanium Based Alloy <i>T. Gloriant, F. Prima, P. Vermaut, D. Ansel and J. Debuigne</i>
14:30	O-3-2	Melting Mechanisms at the Limit of Metastable Superheating <i>Z. Jin, H.W. Sheng, P. Gumsch, K. Lu and E. Ma</i>
14:45	O-3-3	Nanohardness Evolution And its Coupling to Phase Formation during Milling of Supersaturated Solid Solutions <i>D. Jang and M. Atzmon</i>
15:00	O-3-4	Mechanochemical Reduction of Copper Sulphides <i>P. Baláz, L. Takacs, J. Z. Jiang, M. Luxová, K. Saksl and V. Soika</i>
15:15	O-3-5	Mechanisms, Kinetics and Thermodynamics of Mechanical Alloying of Fe-M (M=C, Si, Ge, Sn) Binary Systems <i>E. P. Yelsukov and G. A. Dorofeev</i>
15:30		Discussion
15:35		Break
Session 4: <i>Mechanochemistry / Mechanical Alloying</i>		Chair: A. Calka
15:50	I-4-1	Nanostructure Synthesis and Amorphization during Cold Rolling <i>J. H. Perepezko, R. J. Hebert, and R. I. Wu</i>
16:20	O-4-2	Amorphization of Al-Based Multilayers by Deformation Processing <i>R. J. Hebert and J.H. Perepezko</i>
16:35	I-4-3	Structural and Chemical Characterization of Cu-Ag and Ni-Ag Nanomaterials Synthesized by High-Energy Ball-Milling <i>P. Bellon, F. Wu, S. Zghal, P. Bhatthacharya, R. Twesten, A. Melmed and T. Lusby</i>
17:05	O-4-4	Study of Nanoembedded Lead-Tin Alloys in Aluminum Matrix <i>Victoria Bhattacharya, P. Bhattacharya and K. Chattopadhyay</i>
17:20	O-4-5	Formation of Nanocomposites by Solid State Interface Spreading <i>Nikolai Uvarov</i>
17:35-19:30	P-1	Poster Session, Pendleton Room (drinks and hors d'oeuvres)

Tuesday, 26 June

Session 5: *Metallic Glasses*

Chair: A. Inoue

8:45	I-5-1	The Effect of Second Phase Particles on Thermal Stability, Deformation Behavior and Electrochemical Properties of Zr- and Mg-Based Bulk Metallic Glasses <i>J. Eckert, S. Deledda, B. Bartusch, U. Kühn, U. Wolff and A. Gebert</i>
9:15	O-5-2	Microstructural and Deformation Characteristics of Amorphous Alloy $Zr_{67}Ni_{10}Nb_6Cu_{14}Al_3$ <i>S. Medeiros and A.K. Ghosh</i>
9:30	O-5-3	Consolidation of Partially Amorphous Al-Fe-Zr Alloys <i>C.A.D Rodrigues, D.R. Leiva, K.R. Cardoso and W.J. Botta F.</i>
9:45	O-5-4	Transition From Nucleation- Controlled to Growth-Controlled Crystallization in $Pd_{43}Ni_{10}Cu_{27}P_{20}$ Melts <i>J. Schroers and W. L. Johnson</i>
10:00	O-5-5	On the Atomic Force Microscopy Characterization of Some Zr-Based Metallic Glasses: Anomalous Electrostatic Behavior <i>T. Benameur, A. Touhami and A.R. Yavari</i>
10:15		Break

Session 6: *Nanocomposites*

Chair: M. D. Baró

10:35	I-6-1	Nanocomposites of Ceramics, Nanotubes, and Polymers <i>Richard W. Siegel</i>
11:05	O-6-2	Mechanical Activation of Granite Rock Dust: Strength Development in Portland Cement Concrete and Lime Mortars <i>Paul C. Lessard and Mike Havens-Cook</i>
11:20	O-6-3	High Kinetic Processing of Enamel, part I <i>H. Zoz, H.U. Benz, G. Schäfer, M. Dannehl, J. Krüll, F. Kaup, H. Ren and R. Reichardt</i>
11:35	O-6-4	Processing and Properties of Dense Cu Nanocomposites <i>A. Trudler, I. Gotman and E. Y. Gutmanas</i>
11:50	O-6-5	Mechanically Alloyed Nanocrystalline Intermetallic Matrix Composite Powders Reinforced with Alumina <i>Dariusz Oleszak</i>
12:05	O-6-6	Spark Plasma Sintering of Alumina–Cr and –Nb Composites <i>S. D. De la Torre, D. E. García, N. Claussen, R. Janssen, Y. Nishikawa, R. Martinez-Sánchez and H. Miyamoto</i>
12:20		Lunch break

Session 7: <i>Mechanical Behavior</i>		Chair: R. B. Schwarz
14:00	I-7-1	Development of Structural Amorphous Metals <i>W.L. Johnson</i>
14:30	K-7-2	Ductilisation of Fe-Based Bulk Metallic Glasses <i>A. R. Yavari</i>
14:50	O-7-3	Atomic-Level Theory and Simulation of Deformation Dynamics in Amorphous Metals <i>Michael Falk</i>
15:05	O-7-4	Viscosity of Mechanically Alloyed Amorphous Zr-Cu-Al-Ni Matrix Composites in the Supercooled Liquid Region <i>S. Deledda, J. Eckert and L. Schultz</i>
15:20	O-7-5	Anomalous Elastic Properties of Metal-Metal Interfaces <i>U. Harms and R. B. Schwarz</i>
15:35		Break
Session 8: <i>Synthesis & Processing</i>		Chair: P. Bellon
15:50	I-8-1	Recent Advances in Bulk Metallic Glass <i>R. B. Schwarz, T. D. Shen, U. Harms and O. Jin</i>
16:20	O-8-2	Development of Welding Technologies in Bulk Metallic Glasses <i>Yoshihito Kawamura and Yasuhide Ohno</i>
16:35	O-8-3	Reaction Kinetics and Microstructural Evolution During Heating High Energy Ball Milled Al-Metal Oxide Composite Powders <i>D. L. Zhang, D. Y. Ying and G. Adam</i>
16:50	I-8-4	Synthesis and Properties of Amorphous and Nanocrystalline Al-Y Thin Films <i>L. Berger, J. W. Mrosk, C. Ettl and H. J. Fecht</i>
17:20	O-8-5	Platinum Bilayers with Hexagonal Structure Prepared in the Interplanar Space of Graphite by a Sonochemical Approach <i>J. Walter, M. Nishioka and S. Hara</i>
17:35-19:30	P-2	Poster Session, Pendleton Room (drinks and hors d'oeuvres)

Wednesday, 27 June

Session 9: <i>Mechanochemistry</i>		Chair: H. J. Fecht
8:45	I-9-1	Dynamical and Morphological Aspects of Mechanochemical Synthesis / Mechanical Alloying <i>N. Lyakhov</i>
9:15	I-9-2	Chemomechanical Effects Accompanying Mechanochemical Reactions, Diffusion and Creep <i>E. M. Gutman</i>
9:45	O-9-3	Amorphization and Reactivity of Silicon Induced by Mechanical Treatment <i>A. N. Streletskii, A. V. Leonov, I. V. Beresteskaaya, S. N. Mudretsova, A. F. Majorova and P. Ju. Butyagin</i>
10:00	O-9-4	Modeling of Fast Microcontact Interactions of Solids During Milling, Mechanical Alloying and Mechanical Activation by Dynamic Nanoindentation Technique <i>Yu. I. Golovin, V. I. Ivolgin, V. V. Korenkov, A. I. Tyurin and B. Ya. Farber</i>
10:15		Break
Session 10: <i>Magnetic Properties</i>		Chair: M. L. Trudeau
10:35	I-10-1	Magnetism and Structure of Nanoparticles and Mesoscopic Systems <i>A. Ye. Yermakov</i>
11:05	I-10-2	Disordered Magnetism at the Grain Boundary of Pure Nanocrystalline Iron <i>A. Hernando, L. del Bianco, P. Crespo and F. Briones</i>
11:35	O-10-3	Magnetic Properties and Magnetic Entropy Change of Amorphous and Crystalline GdTAI (T=Ni, Co, Cu) Ribbons <i>L. Si, J. Ding, B. H. Liu, Y. Li and B. Yao</i>
11:50		Lunch break
13:30		Excursion to the Henry Ford Museum, Dearborn
18:00		Back in AA

Thursday, 28 June

Session 11: <i>Ceramics –Flame Synthesis</i>		Chair: R. M. Laine
8:45	I-11-1	Strategies for Controlling Vapor Phase Nanoparticle Formation, <i>Michael R. Zachariah</i>
9:15	O-11-2	Gas Phase Combustion Synthesis of Tin Oxide Particles <i>D. Hall and M. Wooldridge</i>
9:30	O-11-3	Single-Step Synthesis of Nano-Scaled Ceramics and Composites Using Metal-Organic Precursors <i>Sanjay Mathur and Michael Veith</i>
9:45	O-11-4	Precursor-Derived SiC/Si ₃ N ₄ Nano/Nano Composites: Synthesis, Structure and Phase Evolution at High Temperatures <i>Markus Weinmann, Achim Zern and Fritz Aldinger</i>
10:00	O-11-5	Neutron and X-Ray Diffraction Study of Nanocrystalline Oxycarbide Glasses Prepared by Sol-Gel and Ball Milling <i>H. Brequel, S. Enzo, F. Babonneau and P. Radaelli</i>
10:15		Break
Session 12: <i>Synthesis & Processing</i>		Chair: A. R. Yavari
10:35	K-12-1	Novel Multicomponent Alloys <i>Brian Cantor</i>
10:55	K-12-2	High Energy Milling of Titanium Aluminides Under Argon Atmosphere – General Problems and Potential Applications <i>G. Fanta, R. Bohn, T. Klassen and R. Bormann</i>
11:15	O-12-3	Processing and Thermal Stability of Nanostructured Al Alloys <i>F. Zhou, R. Rodriguez, K. H. Chung and E. J. Lavernia</i>
11:30	O-12-4	Characterization of Alloyed Cementite Produced by Mechanical Alloying and Spark Plasma <i>M. Umemoto, Z. G. Liu, D. Y. Liu, H. Takaoka and K. Tsuchiya</i>
11:45	O-12-5	Microstructural Investigation of Grain Stability in Cryomilled Inconel 625 Powder <i>Kyung H. Chung, Jongsang Lee, Rodolfo Rodriguez and Enrique J. Lavernia</i>
12:00	O-12-6	On the Efficiency of the Mechanical Alloying of Ductile Powders <i>J. Guerrero-Paz, D. Jaramillo-Vigueras, D. Hernández Silva, R. Martinez-Sanchez and J. J. Cruz-Rivera</i>
12:15		Discussion
12:20		Lunch break

Session 13: <i>Thermodynamics & Kinetics</i>		Chair: A. L. Greer
14:00	I-13-1	Phase Selection and Crystallization Kinetics in Zr-Cu-Ni-Al Based Metallic Glasses <i>Uwe Köster</i>
14:30	I-13-2	Crystallization Behaviour of Al ₈₈ -RE ₄ -Ni ₈ -(Cu) Metallic Glasses <i>P.J. Warren, Y. Zhang, F. Gomez-Cuevas, B. C. Ko and B. Cantor</i>
15:00	O-13-3	Formation of Quasicrystals and Crystallization Sequence in the Zr _{46.8} Ti _{18.2} Cu _{7.5} Ni ₁₀ Be _{27.5} Bulk Glass <i>M.-P. Macht, S. Mechler, M. Müller and N. Wanderka</i>
15:15	O-13-4	Glass-Forming Ability of Mg-Cu-Co-Y Alloy <i>L.C. Zhang and J. Xu</i>
15:30		Discussion
15:35		Break
Session 14: <i>Magnetic Properties</i>		Chair: A. Ye Yermakov
15:50	I-14-1	Nanostructured Magnetic Materials Using Electrodeposition Processes <i>Michel L. Trudeau</i>
16:20	O-14-2	Bulk Fe-Based Metallic Glass with Extremely Soft Ferromagnetic Properties <i>T. D. Shen and R. B. Schwarz</i>
16:35	O-14-3	Mechanically Alloyed (Fe _{0.5} Cu _{0.5}) _{100-x} Zr _x (x=7-17 at.%) Alloys <i>P. Crespo, P. Marin, P. Agudo, M. Alocén, A. Hernando, A. García-Escorial, J. Eckert, S. Roth and L. Schultz</i>
16:50	K-14-4	Structural and Magnetic Characterization of Ball Milled Hard Magnetic (SmCo ₅) + Antiferromagnetic (NiO, CoO) Powders <i>J. Sort, J. Nogués, S. Suriñach, J. S. Muñoz, E. Chappel, F. Dupont, G. Chouteau, M. D. Baró</i>
17:10	O-14-5	Magnetic and Transport Properties of Mechanosynthesized FeCr ₂ S ₄ Sulfospinel <i>G. F. Goya</i>
17:25		Discussion
17:35		END OF SESSION
19:30		Symposium Banquet Ballroom, Michigan League, 911 North university Avenue

Friday, 29 June

Session 15: *Mechanochemistry - Ceramics*

Chair: S. Enzo

8:45	I-15-1	Recent Developments in Mechanochemical Nanoparticle Synthesis <i>P. G. McCormick and T. Tsuzuki</i>
9:15	I-15-2	Electrical Discharge Assisted Ball Milling: A Promising Materials Processing Method <i>A. Calka and D. Wexler</i>
9:45	O-15-3	Preparation of Dispersed Ceramic Materials by Soft Mechanochemical Method <i>Evgenni Avvakumov</i>
10:00	O-15-4	Discussion
10:15		Break
Session 16: <i>Hydrogen Storage & Electrochemistry</i> Chair: C. C. Koch		
10:35	I-16-1	Mechanosynthesis of Hydrogen Storage Alloys <i>Guoxian Liang, Jacques Huot and Robert Schulz</i>
11:05	O-16-2	Production of Nanocrystalline Hydrogen-Absorbing Mg-Ni Alloys and Their Characterization by XRD and TEM <i>A. Palacios-Lazcano, H. Calderón-Benavides, J. G. Cabañas-Moreno, F. Cruz-Gandarilla, J. Bonifacio-Martínez, J. L. Iturbe-García</i>
11:20	O-16-3	Electrochemical Properties of Nanocrystalline Sn-Based Alloys for Lithium Batteries <i>J-H. Ahn, Y. J. Kim and C. J. Choi</i>
11:40	K-16-4	Thermal Stability of Nanostructured Electrodeposits <i>G. Hibbard, U. Erb, K. T. Aust, U. Klement and G. Palumbo</i>
12:10	O-16-5	Microstructure and Thermal Stability of Electrodeposited Nanocrystalline Ni <i>Matthias Abraham, Mattias Thuvander, Alfred Cerezo and George D.W. Smith</i>
12:25		End

Poster Sessions

Monday, 25 June, 17:35 – 19:30, Pendleton Room
(Hors d'oeuvres and drinks will be served)

P-1-1 Tensile Properties of Bulk Nanocrystalline Hexagonal Cobalt Electrodeposits

A. Karimpoor, U. Erb, K. T. Aust, Z. Wang and G. Palumbo

P-1-2 Modelling of Plasticity of Nanocrystalline Metallic Materials

Hyoung Seop Kim

P-1-3 Mechanical Properties and Deformation Behaviour of Equal Channel Angular Pressed Ultrafine-Grained Copper

Hyoung Seop Kim, Sun Ig Hong, Hong Rho Lee and Kap Ho Lee

P-1-4 Mechanical Properties at 300-4.2 K of Bulk Nanostructured Cu, Ni and Ti Processed by Severe Plastic Deformation

E. Tabachnikova, V. Natsik, R. Valiev, V. Stolyarov and I. Alexandrov

P-1-5 Mechanical Properties of Micro/Nanocrystalline NiAl

O. Coreño-Alonso, J. G. Cabañas-Moreno, H. A. Calderón, F. Cruz-Gandarilla and M. Umemoto

P-1-6 Determination of the Mechanical Properties of Nanocrystalline Fe-Cr-Based Thermal Spray Coatings

G. Bürkle, F. Banhart, H.-J. Fecht, A. Sagel and C. Wanke*

P-1-7 Rapidly Solidified Powder Metallurgy Magnesium Alloys with Novel Mechanical Properties

Yoshihito Kawamura, Kentaro Hayashi, Akihisa Inoue and Tsuyoshi Masumoto

P-1-8 Microstructure and Mechanical Properties of 6061 Aluminum Alloy Processed by Equal Channel Angular Pressing

Sun Ig Hong, Kap Ho Lee and Hyoung Seop Kim

P-1-9 Nanohardness Measurements in Nanocrystalline, Elemental, Fe Formed by Mechanical Attrition

D. Jang and M. Atzmon

P-1-10 Plastic Instabilities in Nanocrystalline and Ultrafine-Grained Metals

E. Ma, D. Jia, Y. M. Wang and K. T. Ramesh

P-1-11 Microstructure and Mechanical Properties of Ti₃Al/SiCp Nanocomposites Produced by Mechanical Alloying

D. L. Zhang and J. Liang

P-1-12 Mechanochemical Treatment of Scrap Tires Rubber

M. Magini, F. Cavalieri and F. Padella

P-1-13 Synthesis of Nanocrystalline Biomaterials by Mechanochemical Transformation

G. Gonzalez, R. Villalba

P-1-14 The Effect of Mechanical Treatment on the Properties of Piroxicam and the Formation of its Complex with β -Cyclodextrin

M. A. Vasilchenko, T. P. Shakhshneider, V. V. Boldyrev, A. S. Medvedeva and L. I. Safronova

P-1-15 Approaching the Ignition of Self-Sustaining Mechanochemical Reaction in the NiO-Nb System

L. Takacs, V. Soika and A. H. Weber

- P-1-16** Mechanochemical Activation of Solid State Reaction between Mg and TiO₂ and Synthesis of MgO Reinforced Mg-10.3%Ti-5%Al alloy by Mechanical Alloying
S. Venkataraman, Lu Li and Lai M.O.
- P-1-17** Mechanochemistry of Paramagnetic Structural Defects in Magnetic Field
R. B. Morgounov and Yu. Golovin
- P-1-18** A New Mechano-Chemical Method for Metal Coating
A. R. Torosyan, J. R. Tuck and A. M. Korsunsky
- P-1-19** An Effect of Plastic Deformation on Structure and Phase Composition of Aluminium-Rich Al-Fe Alloys
S. D. Kaloshkin, V. V. Tcherdyntsev, I. A. Tomilin, D. V. Gunderov, V. V. Stolyarov, Yu. V. Baldokhin and E.V. Shelekhov
- P-1-20** Phase Evolution and Microstructural Characterization of High-Energy Ball Milled Al-Si-Fe-Ni Alloys
R. D. S. Lisboa, M. N. R. V. Perdigão, W. J. Botta F^o and C. S. Kiminami
- P-1-21** Synthesis and Characterization of the Mechanically Alloyed Co-Ag System
D. Bonyuet, G. González, J. Ochoa and R. Villalba
- P-1-22** Mechanical Alloying of Ductile FeMnAlCCu Samples
B. Cruz and G. A. Pérez Alcázar
- P-1-23** Mechanical Alloying in the Fe-Ag System
D. Bonyuet, G. González, J. Ochoa, L. D`Onofrio and F. González
- P-1-24** Mechanical Alloying and Microstructure of Nb-V-Al Alloys
S. Dymek, M. Dollar and M. Wróbel
- P-1-25** Structure of Fe-Ag Super-Laminates Fabricated by Repeated Rolling and Mechanically Alloyed Fe-Ag Powder
T. Yoshioka, M. Yasuda, H. Miyamura, S. Kikuchi and K. Tokumitsu
- P-1-26** Mechanochemical Ceramic Method of Metastable Complex Oxides Preparation for Nanomaterials
Vladimir Zyryanov
- P-1-27** Mechanically Induced Synthesis of Complicated Oxides
S.Barsegyan, A.Torosyan and V. Martirosyan*
- P-1-28** Nonequilibrium Cation Distribution in Nanoscale Mechanically Activated Nickel Ferrite and its Thermal Stability
S. Sepelak and K. D. Becker
- P-1-29** Synthesis and Hot Compaction of Nitrogenated Tungsten Carbide
D. Wexler, A. Calka and L. Anderberg
- P-1-30** Synthesis of SnO₂ Nanosized Powder by Mechanochemical Method for Sensing of H₂S
Ülo Kersen
- P-1-31** Production of Nanostructured CoO, Co₃O₄ and NiO Particles by Mechanically Induced Oxidation and Displacement Reactions
G. García-Pacheco, J.G. Cabañas-Moreno, F. Cruz-Gandarilla, H. Yee-Madeira and M. Umemoto
- P-1-32** Mechanochemistry for Secondary Lithium Batteries
N.V. Kosova, E. T. Devyatkina, V.F. Anufrienko, N.T. Vasenin S.V. Vosel, S.G. Kozlova and T.V. Larina
- P-1-33** Structure/Property Relationship in Silicon Oxycarbide Glasses and Ceramics Obtained by Sol-Gel Method

H. Brequel, S. Enzo, S. Walter, G. D. Sorarù, R. Badheka and F. Babonneau

P-1-34 Structural Investigation of Silicon Carbonitride by Neutron Diffraction

H. Brequel, S. Enzo, G. Gregori, H-J. Kleebe and A. Hannon

P-1-35 Yttrium Aluminum Garnet Nanopowders by Flame Spray Pyrolysis

Julien Marchal, Tom Hinklin, Rita Baranwal and Richard M. Laine

P-1-36 Solid Solution Behavior of $Ce_xZr_{1-x}O_2$ Nanopowders Prepared by Flame Spray Pyrolysis of Solvent-Borne Precursors

Anthony C. Sutorik and Mary Sharon Baliat

P-1-37 Crystalline and High Surface Area Cobalt Ferrites Prepared via Alkoxide (Metal Glycerolates)

Efraim Mendelovici

P-1-38 Preparation and Characterization of Cr-O Films Grown by Low-Temperature Chemical Vapor Deposition

F. Barradas-Olmos, J. R. Vargas-Garcia and J. J. Cruz-Rivera

P-1-39 Spin Dynamics of Nanostructured $La_{1/3}Ca_{2/3}MnO_3$

G. F. Goya, H. R. Rechenberg and M.R. Ibarra

P-1-40 Microstructural Characterisation of a Rapidly Solidified $Mm(NiCoMnAl)_5$ Hydride Forming Alloy

S. Gulbrandsen-Dahl, J. K. Solberg and R. Brateng

P-1-41 Synthesis of B2 Structured Magnesium Alloys by Mechanical Alloying and their Hydriding Properties

S. Hwang and C. Nishimura

P-1-42 Oxidation of Glassy and Nanocrystalline $Zr_{70}Pd_{30}$ Alloys

Lioba Jastrow, Monika Meuris, Uwe Köster, Natascha Froumin, Dan Eliezer

P-1-43 Microstructural Peculiarities of Mechanically Alloyed CuCo and CuFe in 3DAP

Vladimir Ivchenko

P-1-44 Structure and Thermal Stability of CuZr System,

A. Al-Hajry, M. Al-Assiri, S. Al-Heniti, J. Hefne, A. Al-Shahrani and A. Easa

P-1-45 Neutron Small-Angle Scattering of HfPd System Prepared by Mechanical Alloying

Al-Hajry, M. Al-Assiri, S. Enzo, J. Hefne, N. Cowlam, L. Jones, F. Delogu, and H. Brequel

P-1-46 RMS Strain $\langle \epsilon^2 \rangle^{1/2}$ Variation vs. Grain Refining during Annealing of $Co_{50}Ti_{50}$ Synthesized by AM-SPS

R. Martínez-Sánchez, L. Béjar-Gómez, F. Espinosa-Magaña, J. G. Cabañas-Moreno and S.D. De la Torre

P-1-47 Small Angle Neutron Scattering Investigations on Ferrofluids Using Polarised Neutrons

A. Wiedenmann and A. Hoell

P-1-48 Molecular Dynamic Modelling of the (111)-(100) Grain Boundary in Lennard-Jones Crystal

A.Yu. Bakulina, I.I. Gainutdinov and N.F. Uvarov

P-1-49 Electronic Structure of Al_6Mg_4Cu Quasicrystal

Yu. Mitrokhin

Tuesday, 26 June, 17:35 – 19:30, Pendleton Room

(Hors d'oeuvres and drinks will be served)

P-2-1 Influence of Mechanical Grinding on the Structure and Magnetic Properties of FeCuNbSiB Material

P. Marín, M. López and A. Hernando

P-2-2 Influence of B Content on the Structural and Magnetic Properties of Fe₆₀Mn₁₀Al_{30-x}B_x Prepared by Mechanical Alloying

M. M. Rico, J. Sort, S. Suriñach, J. M. Greneche, G. A. Perez Alcázar, J. S. Muñoz and M. D. Baró

P-2-3 Elaboration and Characterization of Magnetic Composites Based on Finemet Particles for Power Applications

C. Ramiarinjaona, F. Alves, S. Berenguer, R. Lebourgeois and T. Waeckerlé

P-2-4 Does Nanocrystalline Fe Have Unusual Magnetic Properties and an Additional Sextet in the Mössbauer Spectrum ?

E. P. Yelsukov, G. A. Dorofeev, A. I. Uliyanov and A.V. Zagainov

P-2-5 Magnetically Soft Nanomaterials for High-Temperature Applications

T. Kulik, A. Wlazlowska and J. Latuch

P-2-6 Properties of Fe and Co Nanoparticles Synthesized by Chemical Vapor Condensation

C. J. Choi, X. L. Dong, B. K. Kim and J-H. Ahn

P-2-7 Superparamagnetic Properties of Carbon Encapsulated Ni nanoparticle Assemblies

Xiang-Cheng Sun, Xing-Long Dong, and J. A. Toledo

P-2-8 X-Ray Photoelectron Study of Carbon Cluster Systems Obtained by Low-Energy Systems

I. N. Shabanova, L. G. Makarova, A. P. Kuznetsov, O. A. Nikolaeva, and V. I. Kodolov

P-2-9 Withdrawn

P-2-10 Growth of Fe Oxide Whisker from Fe-Cu and Fe-Ag Supersaturated Solid Solution Nanoparticles

Y. Todaka, K. Tsuchiya and M. Umemoto

P-2-11 The Formation of Graphite Encapsulated Metal Nanoparticles During Mechanical Activation and Thermal Annealing of Soot with Iron and Nickel

Boris Bokhonov and M. Korchagin

P-2-12 Vitrification of Undercooled Liquids

A. Gungor, V. I. Dimitrov and M. Kumru

P-2-13 Diffusion in Undercooled Liquids and their Glasses

M. Kumru, V. I. Dimitrov and A. Gungor

P-2-14 A Theory of Rapid Crystallisation and Amorphisation of Undercooled Liquids

V. I. Dimitrov, A. Gungor and M. Kumru

P-2-15 On the Nature of Amorphous Alloys Created in Immiscible Systems

E. Ma, J. H. He, and H. W. Sheng

P-2-16 Comparative Analysis of Crystallization of Al₈₅Y_{8-x}Re_xNi₅Co₂ (Re-Rare Earth Metals i.e. La, Nd, Sm or Mischmetal) Metallic Glasses with and without Supercooled Liquid Region

D. V. Louzguine and A. Inoue

P-2-17 The Effects of Atomic Size on the Glass Forming Ability in Fe-Zr-TM-B (TM= Transition Metal) Amorphous Alloys

Won-Bae Kim, Ji-Hun Kim and Byung-Joon Ye

P-2-18 Nanocrystallization Studies of Melt-Quenched $Zr_{67}Fe_{33}$ and $Zr_{67}Ni_{33}$ Amorphous Alloys

Á. Révész, J. Lendvai, A. Lovas and I. Bakonyi

P-2-19 The Correlation Between Cooling Rates and Nature of Solidification through the 54% Zr 46% Cu Ribbon Thickness

Biljana Radojevic

P-2-20 Undercooling Experiments on the Zr-Ta System from Drop-Tube Processing

L. Magnusson, C. Berne, H. Fredriksson and B. Vinet

P-2-21 Evolution of Structure in Disordered Nanocrystalline $Fe_{75}Si_{25}$ Alloy under Heat Treatment

E. P. Yelsukov, V. M. Fomin, O.M. Nemtsova and D.A. Shklyayev

P-2-22 The Atmosphere and Milling Devices Effect on the Activation Energy for Crystallization of a Partially Amorphized Ni-Mo Alloy

R. Martínez-Sánchez, I. Estrada Guel, D. Jaramillo Viguera, S. D. De la Torre and J. Guerrero-Paz

P-2-23 Phase and Structure Transformations in Rapidly Solidified Al-2% Zr Alloys After Severe Plastic Deformation and Annealing

I. Brodova, D. Bashlykov, A. Manukhin, I. Shirinkina, V. Stolyarov and E. Soshnikova

P-2-24 Formation and Stability of Metastable Pd(Zr) Solid Solution Developed during Ball Milling and/or Heat-Treatments of Pd_3Zr

G. L. Katona, M. Kis-Varga** and D. L. Beke*

P-2-25 Structure of the Phases in $FeAl_{1-x}Si_x$ and $FeAl_{1-x}Ge_x$ Alloys Forming by Mechanical Alloying and Annealing

V. I. Fadeeva, I. A. Sviridov, G. A. Kochetov, Yu. V. Baldokhin A. Ye. Bogdanov and S. A. Nikitin

P-2-26 Structural Change of Mechanically Alloyed Fe_2C Powder

K. Tokumitsu and M. Umemoto

P-2-27 ^{57}Fe Mössbauer Spectroscopy Study of $FeSi_2$ Powders Prepared by Water Atomization

K. Tokumitsu and M. Hashii

P-2-28 Layered Double Hydroxides as Nanoreactors

V. Isupov, L. Chupakhina and K. Tarasov

P-2-29 Unusual Metastable Ion-Conducting States in Ionic Salt- Oxide Nanocomposites

N. F. Uvarov, V. G. Ponomareva, G. V. Lavrova and L. I. Brezhneva

P-2-30 The Influence of Milling Intensity in Mechanical Alloying

G. González, L. D'Angelo, J. Ochoa, B. Lara and E. Rodriguez

P-2-31 Containerless Magnetic Levitation of the Easy Glass Forming $Zr_{55}Al_{10}Ni_5Cu_{30}$ Alloy

M. F. de Oliveira, W. J. Botta F., M. J. Kaufman and C. S. Kiminami

P-2-32 Formation of Glassy $Ti_{50}Cu_{20}Ni_{24}Si_4B_2$ Alloy by High-Energy Ball Milling

L.C. Zhang and J. Xu

P-2-33 Use of a Cobalt Metallic-Glass in Joining $MoSi_2$ to Stainless Steel

Rajendra U. Vaidya, Partha Rangaswamy, Darryl P. Butt, Amit Misra, Richard G. Castro, and John J. Petrovic

P-2-34 Hot Uniaxial Pressing of Mechanically Milled Cu-Pb Powders

D. Hernández-Silva, L. A. Barrales-Mora, A. Becerril-Rufiaro and V. M. López-Hirata

P-2-35 The Effect of Sintering Conditions on The Martensitic Transformation in a Mechanical Alloyed and Spark Plasma Sintered Cu-50 at.% Co Alloy

L. Diaz-Barriga-Arceo, V. M. López-Hirata and E. Orozco

P-2-36 Consolidation of Mechanically Alloyed Fe-27at%Al at High Pressure

L.D'Angelo, G. Gonzalez and J. Ochoa

P-2-37 Sintering of Fe_{0.50}Mn_{0.412}Al_{0.075}C_{0.01}Cu_{0.003} Alloys

B. Cruz, G.A Pérez Alcázar, J.D. Ardisson and Waldemar A.A. Macedo

P-2-38 Synthesis of Super-Hard Materials by Mechanically Induced Detonation

Baghdasaryan V.S, Martirosyan V.G., Aloyan S.G., Balayan H.G., Navasardyan H.V.

P-2-39 Superplastic Forging of ZrTiCuNiBe-Bulk Glass for Shaping of Microparts

Th. Zumkley, S. Suzuki, S. Mechler and M.-P. Macht

P-2-40 Synthesis of Ni, Co and Fe Raney Catalysts Prepared by Mechanical Alloying and Alkaline Leaching

B. Zeifert, M. Arzola-Mendoza, J. G. Cabañas-Moreno, E. Yee-Madeira, J. Salmones-Blásquez, A. Vázquez and I. Hernández

P-2-41 Formation of Nanocrystalline Steels by Ball Milling

M. Umemoto, Z. G. Liu, J. Yin, N. Suzuki and K. Tsuchiya

P-2-42 Effect of Si on Icosahedral Phase Formation in Mechanically Alloyed Al₇₀Cu₂₀Fe₁₀

P. Barua, B. K. Mathur, V. Srinivas, B. S. Murty, F. Schurack and J. Eckert

P-2-43 Effect of Mo Additions on the Nickel Aluminide Formation by Mechanical Alloying

V. K. Portnoy, A. M. Blinov and I. A. Tomilin

P-2-44 Bulk Shape Memory NiTi with Refined Grain Size Synthesized by Mechanical Alloying

Wendy Crone, A.N. Yahya and J.H. Perepezko

P-2-45 CVD Phase Diagrams for Iridium Films

A. Fernandez-Perez, Jorge Roberto Vargas-Garcia and J.A. Romero-Serrano

P-2-46 Amorphous and Crystal Structures of the Products of Mechanical Alloying and Leaching in the Co-Al System

G.V. Golubkova, O.I. Lomovsky, A.A. Vlasov and L.S. Davlitova

P-2-47 Molecular Structure of Octakis(dimethylsiloxy)octasilsesquioxane Nanocrystals

D. Y. Lin, R. M. Laine*, and D. C. Martin**

P-2-48 Deformation-Induced Molecular Alignment in Pentacene

Lawrence Drummy, Paul Miska and David C. Martin

P-2-49 High-Resolution Electron Microscopy of Triazine-Tribenzonitrile Organic Frameworks

G.M. Hostetter, L. Drummy, D. Vodak, O. Yaghi, and D.C. Martin