Preliminary Scientific Program

Sunday, 18 May 2003

Get-Together Party and Registration (17:30-19:30 hours) at Sanjo Conference hall, The University of Tokyo

Monday, 19 May 2003

9:15 Registration (continued)

10:00 Opening and Welcome
G. Rosenblatt, Representative of the IUPAC
M. Yamawaki, Organizer of HTMC-XI

Thermodynamics

10:15 K. Ishida;
Tohoku University, Japan
PL01 Phase diagram calculation and its application to alloy design

11:15 Y.B. Kang, H.S. Kim, J. Zhang and H.G. Lee;
Pohang University of Science and Technology, Korea
KL01 Practical application of thermodynamics to inclusions engineering in steel

11:45 B. Sundman and S.G. Fries;
Royal Institute of Technology, Sweden
KL02 Development of multicomponent thermodynamic databases for use in process modeling and simulations

12:15 *Lunch break*

13:30 E. Copland and N.S. Jacobson*;
Case Western Reserve University/NASA Glenn Research Center, USA
*NASA Glenn Research Center, USA
KL03 Component activity measurements in the Ti-Al-O system by Knudsen cell mass spectroscopy

14:00 T. Maruyama and T. Akashi*;
Tokyo Institute of Technology, Japan
*Tohoku University, Japan
OL01 Estimation of Gibbs energy change of the formation of a ternary oxide from binary oxides by electrical conductivity measurements

Liquid phase chemistry

14:30 Y. Ito;
Kyoto University, Japan
PL02 Novel molten salt electrochemical reactions

15:30 *Coffee break*

15:45 B. Mishra and D.L. Olson;
Colorado School of Mines, USA
KL04 Molten salt applications

16:15 H. Tomiyasu, K.C. Park, T. Tsukahara* and Y. Ikeda*;
Shinshu University, Japan
*Tokyo Institute of Technology, Japan
KL05 Physico-chemical properties of supercritical fluid and their industrial use

16:45 S. Watanabe, R. Toyoyoshi, T. Sakamoto, Y. Okamoto*, Y. Iwadate**, H. Akatsuka and H. Matsuura;
Tokyo Institute of Technology, Japan
* Japan Atomic Energy Research Institute, Japan
** Chiba University, Japan
OL02 Temperature dependence of short-range structural property on lithium-lead fluoride

17:15 adjourn

Tuesday, 20 May 2003

Interface/Surface Chemistry

9:30 N. Jacobson, E. Opila*, D. Myers** and E. Copland***;
NASA Glenn Research Center, USA
*Cleveland State University/NASA Glenn Research Center, USA
**East Central University, USA
***Case Western Reserve University/NASA Glenn Research Center, USA
PL03 Interaction of water vapor with oxides at elevated temperature

10:30 *Coffee break*

10:45 R. Dziembaj;
Jagiellonian University, Poland
KL06 Peculiarities of transition metals dispersed on oxide support in relation to adsorption and catalysis phenomena

11:15 S. Shimada and T. Sato;
Hokkaido University, Japan
KL07 High temperature oxidation of SiC compositionally graded graphite coated with sol-gel derived HfO_2

11:45 Yu.F. Shmal'ko, Ye.V. Klochko and M.V. Lototsky;
A.N.Podgorny Institute for Mechanical Engineering Problems of National Academy of Sciences of the Ukraine, Ukraine
OL03 Effect of hydrogen thermo desorption activation by metal hydrides

12:15 *Lunch break*

Preparation of bulk materials

13:30 T. Izumi and Y. Shiohara;
International Superconductivity Technology

Center, Japan
PL04 Crystal growth of superconductive oxide from oxide melts

14:30 Y. Ikuhara;
The University of Tokyo, Japan
KL08 Grain boundary character and atomic structures in oxide ceramics

15:00 *Coffee break*

15:15 R. Riedel;
Darmstadt University of Technology, Germany
KL09 Synthesis of novel high-temperature ceramic materials form molecular precursors

15:45 J. Hojo;
Kyushu University, Japan
KL10 Nanostructure design of ceramics from fine composite particles

16:15 J. Gole, Z. Dai, J. Stout and Z. Wang;
Georgia Institute of Technology, USA
KL11 Silicon/silica and tin oxide based nanowires, nanofiber arrays, nanoribbons, and nanotubes

16:45 T. Bak, T. Burg, J. Nowotny, M. Rekas, L. Sheppard, C.C. Sorrell, Y. Yoshida*, K. Yamaguchi* and M. Yamawaki*;
The University of New South Wales, Australia
*The University of Tokyo, Japan
OL04 Semiconducting properties of TiO_2 single crystal vs. ceramic

17:15 adjourn

Wednesday, 21 May 2003

9:00 Mounting of Posters

Solid state chemistry

9:30 J.A. Kilner;
Imperial College of Science Technology and Medicine, UK
PL05 Oxygen diffusion and exchange in materials for ceramic membrane applications

10:30 *Coffee braek*

10:45 J.H. Ye and Z.G. Zou*;
National Institute of Materials Science, Japan
* National Institute of Advanced Industrial Science and Technology, Japan
KL12 New photocatalysts and their applications to energy and environment

11:15 Y. Nishihata, J. Mizuki, H. Tanaka*, M. Uenishi* and M. Kimura**;
Japan Atomic Energy Research Institute, Japan
*Daihatsu Motor Co. Ltd, Japan
** Cataler Corporation, Japan
KL13 Self-regeneration of palladium-perovskite catalysts in modern automobiles

11:45 T. Tsuji, H. Umakishi and Y. Yamamura;
Japan Advanced Institute of Science and Technology, Japan
OL05 Thermodynamic properties of undoped and Fe-doped $LiMn_2O_4$ at high temperature

12:15 *Lunch break*

13:30 Poster Session A and coffee break

15:30 adjourn

17:00 Optional Excursion: from Hamamatsu-cho Bus Terminal
EX-1 Kabuki Night
EX 2 Tokyo Nightlife

Thursday, 22 May 2003

9:00 Mounting of Posters

Gas phase chemistry

9:30 C.H. Wu;
Max-Planck Institute for Plasma Physics, Germany
PL06 The stability of Li_x, Li_xH_y and Li_nO_m clusters and their relevance to fusion, primordial and hypervalent molecules

10:30 *Coffee braek*

10:45 M.T. Swihart;
University of Buffalo, USA
KL14 Assembling gas-phase reaction mechanisms for high temperature inorganic systems based on quantum chemistry calculations and reaction rate theories

11:15 V.L. Stolyarova;
Institute of Silicate Chemistry of Russian Academy of Sciences, Russia
KL15 Vaporization processes and thermodynamic properties of multicomponent oxide melts

11:45 *Lunch break*

13:15 T. Markus, U. Niemann* and K. Hilpert;
Research Centre Julich GmbH, Germany
* Philips GmbH, Research Laboratories, Germany
KL16 High temperature gas phase chemistry for the development of advanced ceramic discharge lamps

13:45 M. Heyrman and C. Chatillon;
Domaine Universitaire, France
OL06 Methodological improvements in the multiple

Knudsen cell mass spectrometry

14:15 Thermodynamic Database demonstration

15:15 Poster Session B and coffee break

18:00 Farewell Party at the restaurant of Sanjo Conference hall, The University of Tokyo

20:00 adjourn

Friday, 23 May 2003

Lanthanides, Actinides, Nuclear applications

9:30 J.P. Glatz;
Institute for Transuranium Elements, Germany

PL07 Actinide research Related to nuclear fuel and fuel cycle

10:30 *Coffee braek*

10:45 M.G. Escard, L. Rycerz* and S.A. Kuznetsov**;
Ecole Polytechnique Universitaire de Marseille, France
*Technical University, Poland
**Kola Science Center RAS, Russia

KL17 Physicochemical properties of alkali-lanthanide halide systems: Data acquisition and storage of information

11:15 K. Hasegawa, T. Yamamura and Y. Shiokawa;
Tohoku University, Japan

KL18 Hydrometallurgical metal preparation and application to redox flow battery of actinide

11:45 K.V. Govindan Kutty, R. Asuvathraman, R. Madhavan and H. Jena;
Indira Gandhi Center for Atomic Research, India

OL07 Actinide immobilization in crystalline matrices: A study of uranium incorporation in gadolinium zirconate

12:15 Closing

12:30 adjourn

Poster Session A

Thermodynamics

PA01 Y. Arita, K. Suzuki and T. Matsui;
Nagoya University, Japan
Development of high temperature calorimeter: Heat capacity measurement by direct heating pulse calorimetry

PA02 R. Chellappa and D. Chandra;
University of Nevada, Reno, USA
Thermodynamic assessment of organic binary "Plastic crystal" phase diagrams for thermal energy storage

PA03 D. Chandra, K.H. Lau* and M.L. Gaener**;
University of Nevada, USA
*SRI International, USA
**SMI, Reno, USA
Torsion effusion vapor pressure determinations of Os, Rh, Ru, Re, Ir, W, Co, and Cr solid carbonyls

PA04 V.E. Fortov, V.P. Efremov, V.S. Iorish, V.S. Yungman, G.V. Belov, K.V. Khischenko, P.R. Levashov, A.S. Gubin*, S.B. Voctorov* and I.V. Lomonosov**;
Institute for High Energy Densities of "IVTAN" Association of RAS, Russia
*Moscow Engineering Physics Institute, Russia
**Institute of Problems of Chemical Physics of RAS, Russia
Databank and software system for high energy densities applications

PA05 M. Jiang, C.P. Wang, X.J. Liu, I. Ohnuma, R. Kainuma, G.P. Vassilev and K. Ishida;
Tohoku University, Japan
Thermodynamic calculation of phase equilibria in Cu-Ni-Zn system

PA06 A.V. Khachoyan, I,V. Shchurov*, S.V. Klyuchareva** and V.V. Klyucharev**;
Institute of Structural Macrokinetics and Problems of Material Sciences of RAS, Russia
*Moscow State University, Russia
**Institute of Problems of Chemical Physics of RAS, Russia
Hausdorff geometry of chemical transformations

PA07 M. Leskiv, S. Abramov, N. Chilingarov, J. Rau and J.R. Sidorov;
Moscow State University, Russia
Analysis of equilibrium achievement at CoF_3 evaporation

PA08 M. Mäkipää, R. Lahtinen*, R. Fordham** and M. Alatalo***;
VTT Processes, Finland
*VTT Industrial System, Finland
**Joint Research Centre Petten, The Netherlands
***University of Oulu, Finland
Modeling of thermodynamic functions for A-Me-X compounds: Available models and their usefulness for data evaluations

PA09 A.P. Malygin, N.E. Dubinin, N.A. Vatolin and D.V. Alexandrov*;
Institute of Metallurgy of the Urals Division of RAS, Russia
*Urals State University, Russia
On the theory of thermodynamic properties of liquid transition metals: Tight binding model

PA10 S. Knott and A. Mikula;
University of Vienna, Austria
Measurements of the thermodynamic properties of Cu-In-Zn and Cu-Sn-Zn alloys which could become new solder materials

PA11 A.I. Zaitsev, N.E. Zaitseva, K.S. Gavrichev*, V.V. Molokanov** and B.M. Mogutnov;
I.P. Bardin Central Research Institute for Ferrous Metallurgy, Russia
*N.S. Kurnakov Institute of General and Inorganic Chemistry RAS, Russia
**A.A. Baikov Institute of Metallurgy and Materials Science RAS, Russia
Absolute entropy of glassy metallic alloys. Ni-Zr and Ni-Zr-Cu systems

PA12 T. Oishi, S. Tagawa and S. Tanegashima;
Kansai University, Japan
Thermodynamic study of solid copper-nickel alloys by use of copper-beta-alumina

PA13 A.S. Rogachev, S.A. Kirillov, N.A. Kochetov and N.V. Sachkova;
Institute of Structural Macrokinetics and Materials Science RAS, Russia
Dynamics of solid product formation in high-temperature reactions: Microstructure aspect

PA14 A. Roine;
Outokumpu Research Oy, Finland
New properties of HSC chemistry 5.1 for high temperature applications

PA15 E.K. Kazenas, Yu.V. Tsvetkov, I.O. Samoilova, G.K. Astakhova and A.A. Petrov;
A.A.Baikov Institute of Metallurgy and Materials Science RAS, Russia
Themodynamics of alkaline metal molybdate evaporation

PA16 G.P. Vassilev, X.J. Liu and K. Ishida;
Tohoku University, Japan
Studies of Ti-Bi-X phase diagrams (X=Sn, Zn)

PA17 C.P. Wang, X.J. Liu, M. Jiang, I. Ohnuma, R. Kainuma and K. Ishida;
Tohoku University, Japan
Thermodynamic database of the phase diagrams in copper base alloy systems

PA18 T. Yoshikawa and K. Morita;
The University of Tokyo, Japan
Thermodynamics of solid silicon equilibrated with Si-Al-Cu liquid alloys

Liquid Phase Chemistry

PA19 H. Abe, K. Yoshii*, K. Nishida and M. Imai;
National Institute for Materials Science, Japan
*Japan Atomic Energy Research Institute, Japan
Electrochemical plating of superconductive MgB_2 from molten salts

PA20 I. Park*, T. Abiko and T.H. Okabe;
The University of Tokyo, Japan
*Korea Science and engineering Foundation, Korea
Production of titanium powder directly from TiO_2 in $CaCl_2$ by electronically mediated reaction (EMR)

PA21 K. Fukushima, Y. Okamoto* and Y. Iwadate;
Chiba University, Japan
*Japan Atomic Energy Research Institute, Japan
Molecular dynamics simulation on the short range structure of $ZnBr_2$-$ZnCl_2$ melt

PA22 T. Goto and Y. Ito;
Kyoto university, Japan
Electrochemical nitriding of Sn in LiCl-KCl-Li_3N systems

PA23 H. Hayashi and K. Minato;
Japan Atomic Energy Research Institute, Japan
Stability of lanthanide oxides in LiCl-KCl eutectic melt

PA24 M. Iizuka, K. Kinoshita and T. Koyama;
Central Research Institute of Electric Power Industry, Japan
Modeling of anodic dissolution of U-Pu-Zr ternary alloy in molten LiCl-KCl electrolyte

PA25 Y. Iwadate, Y. Seki, K. Fukushima, M. Misawa*[1], T. Fukunaga*[2], T. Nakazawa*[3], Y. Okamoto*[3], H. Matsuura*[4] and N. Umesaki*[5];
Chiba University, Japan
*[1] Niigata University, Japan
*[2] Kyoto University, Japan
*[3] Japan Atomic Energy Research Institute, Japan
*[4] Tokyo Institute of Technology, Japan
*[5] Japan Synchrotron Radiation Research Institute, Japan
Local structure of lead halide melts analyzed by pulsed neutron diffraction

PA26 O.G. Malkhanova, N.E. Dubinin, N.A. Vatlin and T.V. Trefilova;
Institute of Metallurgy of RAS, Russia
The Bhatia-Thornton structure factor for liquid alkali-alkali alloys with the concentration tendency on parameter

PA27 H. Matsuura, H. Numata, R. Fujita*, H. Akatsuka;
Tokyo Institute of Technology, Japan
*Toshiba Corporation, Japan
Reprocessing of spent hydrogen absorbing alloys by using electrochemical techniques in molten salts

PA28 Y. Meguro, S. Iso, Z. Yoshida, J. Ougiyanagi, A. Uehara, Y. Enokida*, I. Yamamoto*, O. Tomioka*, S. Yamamoto**, R. Wada** and K. Yamaguchi**;
Japan Atomic Energy Research Institute, Japan
*Nagoya University, Japan
**Kobe Steel Ltd., Japan
Supercritical carbon dioxide fluid leaching method for removal of uranium from solid samples

PA29 T. Nohira, K. Yasuda and Y. Ito;
Kyoto University, Japan
Electrochemical reduction of solid silicon dioxide to silicon in molten salts

PA30 Y. Okamoto and P.A. Madden*;
Japan Atomic Energy Research Institute, Japan
*Oxford University, UK
Structural study of molten lanthanum halides by X-ray diffraction and computer simulation techniques

PA31 Y. Okamoto, Y. Iwadate*, K. Fukushima*, H. Matsuura** and K. Minato;
Japan Atomic Energy Research Institute, Japan
*Chiba University, Japan
**Tokyo Institute of Technology, Japan
X-ray structural analysis of molten $PbCl_2$

PA32 G.N. Papatheodorou and A.G. Kalampounias*;
Foundation for Research and Technology Hellas, Greece
*University of Patras, Greece
Raman spectroscopic studies in oxides melts up to 2200 K

PA33 O. Shirai, T. Kato, T. Iwai and Y. Arai;
Japan Atomic Energy Research Institute, Japan
Electrochemical behaviors of PuN and (U,Pu)N in LiCl-KCl eutectic melts

PA34 R.O. Suzuki;
Kyoto University, Japan
Calciothermic reduction of TiO_2 and in-situ electrolysis of CaO in the molten $CaCl_2$

PA35 M. Baba*, Y. Ono and R.O. Suzuki;
Kyoto University, Japan
*Cobot Supermetals K.K., Japan
Tantalum and niobium powder preparation from their oxides by calciothermic reduction in the molten $CaCl_2$

PA36 A.I. Zaitsev and N.E. Zaitseva;
I.P. Bardin Central Research Institute for Ferrous Metallurgy, Russia
Thermodynamic approach to melt amorphization

PA37 L.A. Zhukova, A.A. Zhukov and O.P. Aksyonova;
Urals State Technical University, Russia
Simulation of disperse state in melted binary metallic eutectics

Interface

PA38 D.V. Alexandrov;
Urals State University, Russia
Incipience of a two-phase zone during crystallization of binary melts in the ingot mold

PA39 A. Bakov and A. Vatolin*;
Research and Design Institute of Mechanical Engineering, Russia
*Ural State Technical University, Russia
The thermodynamic analysis of oxidated nickeliferous ores reduction by carbon monoxide

PA40 L.R. Brock;
Osram Sylvania, USA
The wetting angle of metal halide melts on different substrate materials

PA41 Yu.A. Elfimov;
Urals State University, Russia
On the theory of the surface reaction diffusion in metal oxides

PA42 C. Chatillon and M. Heyrman;
Domaine Universitaire, France
Surface reactivity by gas introduction in Knudsen cell mass spectrometry

PA43 M. Heyrman and C. Chatillon;
Domaine Universitaire, France
Surface reaction kinetics studied with Knudsen effusion cells

PA44 S.Y. Koo and S.J.L. Kang;
Korea Advanced Institute of Science and Technology, Korea
Reduction kinetics and liquid film migration in Nb_2O_5-doped $SrTiO_3$

PA45 A. Kimura, R. Sugano, Y. Matsushita, R. Kasada, K. Morishita, H. Iwakiri*, N. Yoshida* and S. Ukai**;
Kyoto University, Japan
*Kyushu University, Japan
**Japan Nuclear Cycle Development Institute, Japan
Thermal helium desorption behavior in advanced ferritic steels

PA46 H. Kiyono and S. Shimada;
Hokkaido University, Japan
Dry and wet oxidation of sintered beta-sialon (z=3) ceramics at 1300 to 1600oC

PA47 Yu.F. Shmal'ko and Ye.V. Klochko;
A.N.Podgorny Institute for Mechanical Engineering Problems of National Academy of Sciences of the Ukraine, Ukraine
Isotope effect at thermo desorption hydrogen excitation by metal hydrides

PA48 M. Müller, K. Hilpert and L. Singheiser;
Forschungszentrum Juelich GmbH, Germany
High temperature corrosion of $MoSi_2$-HfO_2 composites in coal slag

PA49 ---

PA50 V.V. Styrov and G.A. Lubyanskii;
Priazovsky State Technical University, Ukraine
Reactions of hydrogen atoms at BN and AlN surfaces followed by chemical energy storage in the solid

PA51 V.V. Styrov, V.I. Tyutyunnikov, O.T. Sergeev*, Y. Oya** and K. Okuno***;
Priazovsky State Technical University, Ukraine
*Institute of Semiconductor Physics of National Academy of Science of Ukraine, Ukraine
**The University of Tokyo, Japan
***Shizuoka University, Japan
Chemical reactions of atomic hydrogen at SiC surface and heterogeneous chemiluminescence

PA52 M. Takeuchi, T. Kato*, K. Hanada, T. Koizumi and S. Aose;
Japan Nuclear Cycle Development Institute, Japan
*Joyo Industry co. Ltd., Japan

Corrosion resistance of ceramics in molten salt under chlorine gas atmosphere

PA53 K. Tatemoto, Y. Ono and R.O Suzuki;
Kyoto University, Japan
Silicide coating on refractory metals in molten salt

PA54 F. Tholence and M. Norell;
Chalmers University of Technology, Sweden
Nitride precipitation during high temperature corrosion of ductile cast irons in synthetic exhaust gases

PA55 A. Vatolin and A. Sotnikov;
Ural State Technical University, Russia
Redox processes with iron ions participation at the boundary of a metal and oxide melt

PA56 N. Vatolina, A. Vatolin and A. Sotnikov;
Ural State Technical University, Russia
Redox processes with oxygen ions participation at the boundary of a metal and oxide melt

Preparation of bulk materials

PA57 A. Awasthi, N. Krishnamurthy, H. Fujiwara*, Y. Ueda* and S.P. Garg;
Bhabha Atomic Research Center, India
*Kyoto University, Japan
DTA studies on synthesis of niobium, tantalum, molybdenum and tungsten silicides

PA58 A. Bellucci, D. Gozzi, M. Iervolino and A. Latini;
University of Rome 'La Sapienza', Italy
Reactivity of Ni-RE intermetallics in atmospheres at low partial pressures of oxidizing species

PA59 H.E. Grigoryan, N.G. Elistratov*, E.V. Illarionova, N.A. Kochetov, D.Yu. Kovalev, A.N. Nosyrev*, V.I. Ponomarev, A.S. Rogachev, V.I. Khvesyuk* and P.A. Tsygankov*;
Institute of structural macrokinetics and materials science of RAS, Russia
*Moscow State Technical University, Russia
High-temperature reaction waves and product structure formation in the nano-scale multilayer intermetallic films

PA60 N. Igawa, T. Taguchi, N. Nozawa*, L.L. Snead**, T. Hinoki**, J.C. McLaughlin**, Y. Katoh*, S. Jitsukawa and A. Kohyama*;
Japan Atomic Energy Research Institute, Japan
*Kyoto University, Japan
**Oak Ridge National Laboratory, USA
Fabrication of SiC fiber reinforced SiC composite by chemical vapor infiltration for excellent mechanical properties

PA61 T. Ishigaki, N. Ohashi, I. Sakaguchi, T. Sekiguchhi and H. Haneda;
National Institute of Materials Science, Japan
Influence of hydrogen doping on UV emission of ZnO through irradiation of argon-hydrogen pulse-modulated ICP

PA62 S.M. Oh and T. Ishigaki;
National Institute of Materials Science, Japan
TaC nanopowders synthesized by liquid precusor injection into Rf induction plasma

PA63 S. Kitazawa, J. Vacik*, C. Lin, V. Lavrentiev and H. Naramoto;
Japan Atomic Energy Research Institute, Japan
*Nuclear Physics Institute ASCR, Czech Republic
In-situ optical spectroscopic analysis during pulsed laser deposition of carbon and metal thin films

PA64 S. Kitazawa, C. Lin, H. Naramoto and S. Yamamoto;
Japan Atomic Energy Research Institute, Japan
Carbon nanoparticles synthesized by pulsed laser ablation in liquid

PA65 A. Latini, F. di Pascasio and D. Gozzi;
Università di Roma "La Sapienza", Italy
Fast synthesis of ceramic and intermetallic compounds by electron beam bombardment

PA66 T.M. Heo, J.B. Lee, D.H. Kim*, H.Y. Lee* and S.J.L. Kang**;
Ceracomp Co. Ltd., Korea
*Sunmoon University, Korea
**KAIST, Korea
Chemically induced interface migration and single crystal growth in piezoelectric ceramics

PA67 T. Nagasaki, H. Ohno, Y. Arita and T. Matsui;
Nagoya University, Japan
Measurement of thermal diffusivity of thin films using picosecond pulse laser

PA68 M. Narisawa, Y. Endoh, E. Tanaka, R. Nishimura, K. Okumura, M. Itoh* and T. Kamiyama**;
Osaka Prefecture University, Japan
*Fukushima National College of Technology, Japan
**Tohoku University, Japan
Synthesis and nanostructure characterization of carbon base hybrid ceramics derived from Si-H containing resins - alkoxide mixtures

PA69 S. Ohtsuka, T. Kaito, T. Narita, S. Ukai and M. Fujiwara*;
Japan Nuclear Cycle Development Institute,

Japan
*KOBELCO Research Institute, Japan
Nano-structure control in ODS martensitic steels by means of selecting titanium and oxygen contents

PA70 A.S. Satyvaldiev and U.A. Asanov;
Institute of Chemistry and Chemical Technology, Kyrgyzstan
Electroerosion method of synthesis of transitional metal compounds

PA71 T. Taguchi, N. Igawa, R. Yamada and S. Jitsukawa;
Japan Atomic Energy Research Institute, Japan
Mechanical and thermal properties of reaction-bonded SiC/SiC composites with interphase layer

PA72 R. Teghil, L. D'Alessio, A. Santagata*, D. Ferro** and G. de Maria***;
Università della Basilicata, Italy
*CNR-Instituto Metodologie Inorganiche e Plasmi, Italy
**CNR-Instuto per lo Studio dei Materiali Nanostrutturati, Italy
*** Università "La Sapienza", Italy
Femtosecond pulsed laser ablation and deposition of titanium carbide thin films

PA73 J. Vacik*, S. Kitazawa, H. Naramoto and S. Yamamoto;
Japan Atomic Energy Research Institute, Japan
*Nuclear Physics Institute, Academy of Sciences of the Czech Republic, Czech Republic
Laser induced phase separation in the nickel-fullerene nano-composite

PA74 J. Zhang, X.H. Wang* and H.G. Lee;
Pohang University of Science and Technology, Korea
*University of Science and Technology Beijing, R.P. China
Investigation of the growth of coating layer and the bonding quality of sandwich sheet during inverse casting

PA75 D. Xue, K. Kitamura and Y.C. Qi*;
National Institute for Materials Science, Japan
* Changchun Institute of Applied Chemistry, Chinese Academy of Sciences, R.P. China
Crystal growth unit model of lithium niobate at the interface of the melt and crystal

PA76 D. Xue and K. Kitamura;
National Institute for Materials Science, Japan
Compositional dependence of cationic displacements in lithium niobate and lithium tantalate crystals

PA77 D. Xue and K. Kitamura;
National Institute for Materials Science, Japan
Effect of Li^{+} and Nb^{5+} cationic sites on macroscopic properties of lithium niobate crystals

PA78 K. Yamaguchi, M. Haraguchi*, S. Igarashi, T. Sato, H. Yamamoto and K. Hojou;
Japan Atomic Energy Research Institute, Japan
*Ibaraki University, Japan
Effect of substrate temperature and deposited thickness of iron silicide prepared by ion beam sputter deposition

PA79 H. Hillebrecht;
Freiburg University, Germany
Single crystal growth and crystal structures of boron rich borides of magnesium

Poster Session B

Solid state chemistry

PB01 M. Aniya and S. Ichihara;
Kumamoto University, Japan
Defect interactions and the superionic transition temperature: A comparative study

PB02 N. Asryan, A. Alykhanyan, G. Nipan and T. Kol'tsova;
Kurnakov Institute of General and Inorganic Chemistry of RAS, Russia
Thermodynamics and phase diagram of the Bi_2O_3-SnO_2 system

PB03 G. Balducci, S. Brutti, A. Ciccioli, G. Gigli, P. Manfrinetti*, A. Palenzona* and L. Kudin**;
Università di Roma "La Sapienza", Italy
* Università di Genova, Italy
**Ivanovo State University of Chemical Sciences and Technology, Russia
Thermodynamics of the intermediate phases in the B-Mg system

PB04 E.M. Fryt;
University of Mining and Metallurgy, Poland
Diffusive properties of TiC at high temperatures

PB05 H. Fujiwara, Y. Ueda, A. Awasthi*, N. Krishnamurthy* and S.P. Garg*;
Kyoto University, Japan
*Bhabha Atomic Research Center, India
Thermodynamic study on refractory metal silicides

PB06 A. Goldgirsh, J.H. Greenberg*, S. Shusterman, R. Zilber and M. Azoulay;
Soreq NRC, Israel
*Hebrew University, Israel
Effect of non-stoichiometry on defects in CdTe and CdZnTe

PB07 A.N. Grundy, B. Hallstedt and L.J. Gauckler;
Institute of Nonmetallic Materials, ETH Zurich, Switzerland
Thermodynamic modeling of $La_{1-x}Mn_{1-y}O_{3-z}$ perovskites

PB08 H.S. Hong and C.O. Park;
KAIST, Korea
Electronic conduction in sodium ion conducting beta alumina used for potentiometric CO_2 gas sensor

PB09 K. Iwasaki, H. Yamane*, J. Takahashi*, S. Kubota*, T. Nagasaki, Y. Arita, M. Shimada* and T. Matsui;
Nagoya University, Japan
*Tohoku University, Japan
Thermoelectric properties of $Ca_3Co_2O_6$ and $Sr_6Co_5O_{15}$

PB10 K. Kakiuchi, N. Itagaki, T. Furuya, Y. Ishii*, S. Suzuki* and M. Yamawaki**;
Nuclear Fuel Industries, LTD, Japan
*Tokyo Electric Power Company, Japan
**The University of Tokyo, Japan
Effect of iron for hydrogen absorption properties of zirconium alloys

PB11 A.G. Kalampounias and G.N. Papatheodorou;
Foundation for Research and Technology Hellas, Greece
High temperature Raman spectroscopic studies in alkali- and alkaline earth-silicate glasses

PB12 T.I. Koneshova, A.A. Kapichnikov and V.M. Novotortsev;
Kurnakov Institute of General and Inorganic Chemistry of RAS, Russia
New ferromagnetic phases in In-Fe-Cr-Te system

PB13 H. Kawaji, Y. Yokobayashi, T. Tojo, T. Atake, N. Sakai* and H. Yokokawa*;
Tokyo Institute of Technology, Japan
*National Institute of Advanced Industrial Science and Technology, Japan
Heat capacity studies of water/hydrogen solubility in $Ce_{0.8}Y_{0.2}O_{1.9}$

PB14 A. Paul, A.A. Kodentsov and F.J.J. van Loo;
Eindhoven University of Technology, The Netherlands
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PB15 A.I. Zaitsev, N.E. Zaitseva and A.A. Kodentsov*;
I.P. Bardin Central Research Institute for Ferrous Metallurgy, Russia
* Eindhoven University of Technology, The Netherlands
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PB16 M. Masaki, A. Nakamura, F. Furuuchi* and Y. Hinatsu*
Japan Atomic Energy Research Institute, Japan
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^{151}Eu Moessbauer spectroscopic and X-ray diffraction study of the $Eu_2(Ce_{1-x}Zr_x)_2O_7$ and $LnEuZr_2O_7$ (Ln=lanthanide) systems

PB17 S. Shioya, T. Matsui, T. Nagasaki and H. Shigematsu*;

Nagoya University, Japan
*Shimane University, Japan
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PB20 F. Ono, T. Terai, M. Yamawaki, T. Furukawa*, F. Ueno* and K. Aoto*;
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*Japan Nuclear Cycle Development Institute, Japan
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PB21 H. Otobe, A. Nakamura, T. Yamashita and K. Minato;
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Japan Advanced Institute of Science and Technology, Japan
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PB28 D. Ueno, M. Sase, K. Yashiro, A. Kaimai, Y. Nigara, T. Kawada and J. Mizusaki;
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PB29 J.H. Wang, Z.G. Zou* and J.H. Ye;
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Surface modification and photocatalytic activity of distorted pyrochlore-type Bi_2InTaO_7 photocatalyst

PB30 J.H. Wang, M. Takeda, H. Otobe* and A. Nakamura*;
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^{155}Gd Mössbauer spectroscopic study of the $Zr_{1-x}Gd_xO_{2-x/2}$ (0<x<1.0) system

PB31 K. Yoshii, H. Abe*, M. Mizumaki**, A. Nakamura, Y. Shimojo, Y. Ishii, Y. Morii, K. Kato** and T. Uruga**;
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**Japan Synchrotron Radiation Research Center, Japan
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Moscow State University, Russia
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*CEA, SETEX-LTEM, France
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**Chuo University, Japan
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* Institute of Structural Macrokinetics and Problems of Materials Science of RAS, Russia
** Institute of General and Inorganic Chemistry of RAS, Russia
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Vapor pressure measurement of zinc oxychloride

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PB53 I. Amamoto, T. Terai* H. Obayashi and R. Fujita**;
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PB55 R. Kandan, R. Babu, K. Nagarajan and P.R. Vasudeva Rao;
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PB58 Y. Kang, T. Terai and Y. Yamawaki;
The University of Tokyo, Japan
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Separation of actinides from rare earth elements by means of molten salt electrorefining with anodic dissolution of U-Pu-Zr alloy fuel

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PB61 K. Kosugi, M. Fukushima, M. Myochin, K. Mizuguchi* and T. Oomori*;
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PB62 S. Majumdar, A.K. Sengupta, R.K. Bhagat, V.D. Pandey, G.B. Kale and A. Laik;
Bhabha Atomic Research Centre, India
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PB63 K. Morimoto, M. Kato, H. Uno*, A. Hanari*, T. Tamura*, H. Sugata*, T. Sunaoshi* and S. Kono;
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*Inspection Development Company, Japan
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PB68 E. Walle, P. Perrol* and J. Foct*;
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PB69 B.A. Pudjanto, K. Konashi*, T. Terai and M. Yamawaki;
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*Tohoku University, Japan
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Effect of Ce ions on MOX codeposition in oxide-electrowinning reprocessing

PB73 A. Sawada, T. Terai, A. Suzuki* and Y. Yamawaki;
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