

HTC-2000 Conference Program

Session 1 (Processing 1)
November 19 (Sun.) 16:05 – 18:10

Chairs: N. Eustathopoulos, K. Mukai

| | | |
|-------------|--|----------|
| S1-1 | ON CAPILLARITY AND INTERFACES IN SINTERING | 1 |
| 16:05 | <u>J.M. Chaix</u> | |
| S1-2 | ANALYSIS OF DENSIFICATION BY SOLUTION-REPRECIPITATION DURING LIQUID PHASE SINTERING | 3 |
| 16:30 | <u>A. Mortensen</u> , C. San Marchi | |
| S1-3 | CAPILLARY MASS TRANSPORT AT LIQUID METAL/Al₂O₃ INTERFACES | 4 |
| 16:50 | E. Saiz, R.M. Cannon, <u>A.P. Tomsia</u> | |
| S1-4 | “IN-SITU” OBSERVATION OF CAPILLARY INTERACTION BETWEEN INCLUSION PARTICLES ON 16Cr STAINLESS STEEL MELT SURFACE | 6 |
| 17:10 | <u>K. Nakajima</u> , S. Mizoguchi | |
| S1-5 | CAPILLARY PROPERTIES OF Ti- AND Zr- BASED METAL ALLOYS WITH AMORPHOUS-FORMING ABILITY IN CONTACT WITH FLUORIDE REFRACTORIES | 8 |
| 17:30 | <u>V. Krasovsky</u> , Y. Naidich | |
| S1-6 | DYNAMIC WETTING AND ITS INFLUENCE ON INTERFACIAL REACTIONS DURING HOT DIP GALVANIZING | 9 |
| 17:50 | <u>N. Ebrill</u> , Y. Durandet, L. Strezov | |

Session 2 (Wetting 1)
November 20 (Mon.) 8:30 – 10:35

Chairs: K. Nogi, N. Froumin

| | | |
|-------------|---|-----------|
| S2-1 | MECHANISMS OF REACTIVE WETTING : HIGH TEMPERATURE SYSTEMS | 11 |
| 8:30 | <u>R.M. Cannon</u> , E. Saiz, A.P. Tomsia | |
| S2-2 | INTERFACIAL REACTIONS AND WETTING IN Pd-Mg/Al₂O₃ SYSTEM: EXPERIMENTAL FACTS AND MECHANISMS | 13 |
| 8:55 | I. Guesdon, F. Saint-Antonin, F. Hodaj, L. Coudurier, <u>N. Eustathopoulos</u> | |
| S2-3 | FACTORS AFFECTING WETTABILITY, STRUCTURE AND CHEMISTRY OF REACTION PRODUCTS IN Al/Si₃N₄ SYSTEM | 14 |
| 9:15 | <u>N. Sobczak</u> , M. Ksiazek, W. Radziwill, J. Morgiel, L. Stobierski, B. Mikulowski | |

| | | |
|----------------------|--|----|
| S2-4 9:35 | WETTABILITY OF TITANIUM NITRIDE BY LIQUID METALS <u>M.L. Muolo</u> , A. Passerone, M. Bassoli, B. Wollein | 16 |
| S2-5 9:55 | ION-DIPOLE ADHESION ENERGY MODEL FOR PREDICTING WETTABILITY OF OXIDE CERAMICS BY NON-REACTIVE LIQUID METALS G. Kaptay, <u>E. Bader</u> | 17 |
| S2-6 10:15 | WETTABILITY OF MOLTEN DROPLETS ON ROUGHENED SUBSTRATE S. Amada, <u>S. Aoki</u> , H. Takahashi | 19 |

Session 3 (Processing 2)
November 20 (Mon.) 11:00 – 12:45

Chairs: A. Mortensen, H. Nakae

| | | |
|----------------------|---|----|
| S3-1 11:00 | PRESSURE INFILTRATION OF PACKED CERAMIC PARTICULATE BY PURE ALUMINUM AND ITS ALLOYS C. Garcia-Cordovilla, <u>E. Louis</u> , J. Narciso | 21 |
| S3-2 11:25 | MODELLING OF KINETICS OF CAPILLARITY-DRIVEN MELT FLOW IN CELL FACES OF METAL FOAMS <u>V. Gergely</u> , R.L. Jones, T.W. Clyne | 23 |
| S3-3 11:45 | PENETRATION BEHAVIOR OF MOLTEN SILVER INTO POROUS REFRACTORY <u>K. Mukai</u> , Z. Li, Z. Tao, T. Ouchi, I. Sasaka, S. Iitsuka | 25 |
| S3-4 12:05 | CONTACT ANGLE OF MOLTEN STEEL APPLIED TO THE DEVELOPMENT OF CLOG-RESISTANT SUBMERGED-ENTRY AND TUNDISH NOZZLES P.D. Ownby, <u>B.T. Eldred</u> | 28 |
| S3-5 12:25 | SOME ASPECTS OF METALLIC FOAMS ON THE EXAMPLE OF COMPOSITE STRUCTURES <u>J. Sobczak</u> | 30 |

Session 4 (Wetting 2)
November 20 (Mon.) 13:50 – 16:00

Chairs: T. Hibiya, R.M. Cannon

| | | |
|----------------------|---|----|
| S4-1 13:50 | WETTING OF GRAIN BOUNDARIES BY LIQUID METALS <u>E. Rabkin</u> | 31 |
| S4-2 14:15 | RELATION BETWEEN WETTING AND GRAIN BOUNDARY CHARACTER <u>P. Wynblatt</u> , M. Takashima, A.T. Rollett, B.L. Adams | 32 |
| S4-3 | PERCOLATION APPROACH TO GRAIN BOUNDARY WETTING: | 34 |

| | | |
|---------------|--|----|
| 14:40 | THEORY, COMPUTER SIMULATION AND EXPERIMENT <u>V. Traskine</u> , P. Volovitch, P. Protsenkos | |
| S4-4 15:00 | ON THE PROBLEM OF WETTABILITY OF THE SOLID SURFACE BY THE OWN MELT <u>V.M. Samsonov</u> , S.D. Muravyev, V.V. Dromnikov | 36 |
| S4-5 15:20 | EQUILIBRIUM CONTACT ANGLE FOR Ni/Al SYSTEMS <u>H. Nakae</u> , T. Hane, T. Sudo | 38 |
| S4-6 15:40 | WETTING AND BRAZING OF ZIRCONIA. STOICHIOMETRY OF ZIRCONIUM OXIDE INFLUENCE <u>A.V. Durov</u> , B.D. Kostjuk, Y. Naidich | 40 |

Session 5 (Surface and Interface 1)
November 21 (Tue.) 8:30 – 10:40

Chairs: A. Passerone, V.M. Samsonov

| | | |
|---------------|---|----|
| S5-1 8:30 | SURFACE PROPERTIES OF MOLTEN METAL-OXYGEN SYSTEMS: THEORETICAL TOOLS <u>E. Ricci</u> , N. Rada, M. Ratto, E. Arato | 41 |
| S5-2 8:55 | THEORETICAL CONSIDERATION FOR ARISING OF A GAS BUBBLE IN A METAL <u>S.V. Gnyloskurenko</u> , T. Nakamura, O.I. Raychenko, A.V. Byakova | 43 |
| S5-3 9:15 | SURFACE TENSION MEASUREMENTS OF HIGH TEMPERATURE METALLIC MELTS <u>L. Egry</u> , S. Schneider, I. Seyhan, T. Volkmann | 46 |
| S5-4 9:35 | EFFECT OF OXYGEN PARTIAL PRESSURE ON DIHEDRAL ANGLES OF SOLID COPPER AND NICKEL MEASURED BY INTERFEROGRAM AT ELEVATED TEMPERATURE T. Yoshii, <u>S. Hara</u> , T. Tanaka | 48 |
| S5-5 9:55 | THERMOCAPILLARY FLOW OF MOLTEN SILICON AND ITS APPLICATION TO CRYSTAL GROWTH <u>T. Hibiya</u> , S. Nakamura, T. Azami, K. Mukai | 50 |
| S5-6 10:15 | WETTABILITY OF METALLIC OXIDES. APPLICATION TO ADHESION C. Vittoz, P.E. Dubois, <u>J.C. Joud</u> | 52 |

Session 6 (Processing 3)
November 21 (Tue.) 10:55– 12:45

Chairs: N.Sobczak, S. Tanaka

| | | |
|---------------|---|----|
| S6-1 10:55 | IN SITU PROCESSING OF METAL MATRIX COMPOSITES END OF THE WETTING PROBLEM? <u>L. Froyen</u> | 55 |
| S6-2 11:20 | FEATURES AFFECTING THE JOINING PROCESS BETWEEN SIMILAR AND DISSIMILAR MATERIALS L. Esposito, <u>A. Bellosi</u> | 57 |
| S6-3 11:45 | JOINING AIN TO COPPER BY USING FUNCTIONALLY GRADED MATERIALS <u>W. Wlosinski</u> | 59 |
| S6-4 12:05 | BRAZING FILLER METALS CONTAINING Zr AND Hf AS DEPRESSANTS V.F. Khorunov, <u>S.V. Maksymova</u> , M.S. Samokhin, V.G. Ivanchenko | 60 |
| S6-5 12:25 | GRAIN GROWTH IN Si-Y CONTAINING POLYCRYSTALLINE ALUMINA <u>R. Voytovych</u> , M. Gulgun, M. Ruehle | 62 |

Session 7 (Surface and Interface 2)
November 22 (Wed.) 8:30 – 10:20

Chairs: J. Joud, W. Wlosinski

| | | |
|--------------|---|----|
| S7-1 8:30 | INTERFACIAL CHEMISTRY AND STRUCTURE OF METAL/CERAMIC INTERFACES M. Ruehle, F. Ernst | 65 |
| S7-2 8:55 | NEUTRON REFLECTION STUDIES OF THE COMPOSITION OF INTERFACES BETWEEN TITANIUM CONTAINING ACTIVE BRAZE ALLOYS AND SAPPHIRE <u>B. Derby</u> , R. Edwards, J.R.P. Webster | 67 |
| S7-3 9:15 | PECULIARITIES OF GROWTH OF SMALL AND THIN CRYSTALS <u>A.M. Ovrutsky</u> , I.G. Rasin | 69 |
| S7-4 9:35 | A MODEL FOR THE SOLID-LIQUID INTERFACIAL ENERGIES OF PURE METALS <u>G. Kaptay</u> | 71 |
| S7-5 9:55 | THEORETICAL AB-INITIO INVESTIGATION OF INTERFACIAL STRUCTURES AND ENERGETICS AT METAL/OXIDE HETEROPHASE BOUNDARIES <u>C. Elsaesser</u> | 73 |

Session 8 (Wetting 3)
November 22 (Wed.) 10:35 – 12:20

Chairs: AP. Tomsia, S. Hara

| | | |
|---------------|--|----|
| S8-1 10:35 | CHEMICAL REACTION-LIMITED SPREADING IN SILICON ALLOYS/CARBON SYSTEMS O. Dezellus, <u>E. Hodaj</u> , N. Eustathopoulos | 75 |
| S8-2 11:00 | FABRICATION OF ALUMINUM MATRIX COMPOSITE VIA INFILTRATION ROUTE <u>M. Kobashi</u> , T. Choh | 77 |
| S8-3 11:20 | ATOMIC THIN FILM PRECEDING AHEAD OF THE REACTIVE WETTING FRONT <u>C. Iwamoto</u> , M. Nomura, S.Tanaka | 79 |
| S8-4 11:40 | INTERFACIAL REACTIONS AND WETTING OF TiC BY NON-REACTIVE LIQUID METALS ALLOYED WITH Al <u>N. Froumin</u> , N. Frage, M. Polak, M.P. Dariel | 81 |
| S8-5 12:00 | SIMULATION OF WETTING PHENOMENA USING THE REAL-CODED LATTICE GAS METHOD <u>Y. Hashimoto</u> , S.Tanaka, H. Ohashi | 83 |

Poster Session 1

November 20 (Mon.) 16:00-18:45

Poster Explanation

Chairs: A.Mortensen, A.Passerone, N.Sobczak

16:00 16:45

(Wetting)

| | | |
|-------|---|----|
| PW1-1 | STUDY OF Cu/TiN SYSTEM: WETTING OR NON-WETTING? S. Kalogeropoulou, J. Van Deelen, F. Le Guyadec, M. Berardo, <u>N. Eustathopoulos</u> | 85 |
| PW1-2 | STABILITY OF Ti COMPOUNDS IN REACTIVE WETTING ON SILICON-BASED CERAMICS M. Nomura, C. Iwamoto, <u>S.Tanaka</u> | 86 |
| PW1-3 | INFLUENCE OF SURFACE MODIFICATION OF ALUMINA SUBSTRATES ON WETTING-BOND STRENGTH RELATIONSHIP IN Al/Al₂O₃ SYSTEM <u>M. Ksiazek</u> , N. Sobczak, B. Mikulowski, W. Radziwill, I. Surowiak | 88 |
| PW1-4 | WETTING-BOND STRENGTH RELATIONSHIP IN Al-AlN SYSTEM N. Sobczak, M. Ksiazek, <u>W. Radziwill</u> , L. Stobierski, B. Mikulowski | 90 |
| PW1-5 | ESTIMATES OF ADHESIVE STRENGTH FROM CONTACT ANGLES <u>V. Traskine</u> , Z. Skvortsova | 92 |
| PW1-6 | THE INFLUENCE OF TITANIUM SOLVENT SECOND COMPONENT ON SILICON NITRIDE CERAMIC WETTING BY MELTS BASED ON Cu-Ti | 94 |

V.S. Zhuravlev, A.A. Prokopenko, A.Y. Koval

WETTABILITY OF SILICON NITRIDE (Si_3N_4 + 6% Y_2O_3 + 4% Al_2O_3) BY LIQUID METALS

PW1-7 E. Bader, L. Zoltai, M. Hordler, P. Arato, R.F. Singer G. Kaptay 96

THE WETTING OF LITHIUM BY LIQUID SODIUM, POTASSIUM AND RUBIDIUM

PW1-8 A. Alchagirov, B. Alchagirov, K. Khokonov, T. Taova, B. Karamurzov 98

(Processing)

PP1-1 **FLATTENING BEHAVIOR OF MOLTEN METAL DROPLETS INFLUENCED BY WETTABILITY** 99

S. Amada, M. Haruyama

PP1-2 **BEHAVIOUR OF LIQUID METAL WHICH IS IN CONTACT WITH DISPERSED MATERIALS CONTAINING CARBON UNDER ELECTRICAL CURRENT** 101

O.I. Raychenko, T.I. Istomina, O.V. Derevyanko, V.P. Popov, L.R. Vishnyakov

PP1-3 **A MATHEMATICAL MODEL OF SOLID PARTICLES BEHAVIOR IN SOLIDIFYING ROTATING SLURRY** 103

L.B. Drenchev, J. Sobczak

PP1-4 **ADHESION-MECHANICAL JOINING AS A NEW FORMATION PRINCIPLE OF CERAMICS TO METALS INDIVIDED JOINTS** 105

Y. Naidich, I. Gab, B. Kostyuk, D. Kurkova, T. Stetsyuk, F. Moret, G. Chaumat, F. Saint-Antonin

PP1-5 **DEVELOPMENT OF SPLIT TYPE TENSILE STRENGTH TESTER FOR HIGH TEMPERATURE CONDITIONS** 106

H. Kamiya, A. Kimura, N. Kaya, T. Yokoyama, M. Naito

PP1-6 **WETTABILITY OF SOLID SUBSTRATE BY MOLTEN MAGNESIUM** 108

W. Shi, M. Kobashi, T. Choh

PP1-7 **BEHAVIOR OF SLAG PENETRATION INTO MgO REFRACTORY** 110

K. Mukai, Z. Tao, K. Goto, Z. Li, T. Takashima

PP1-8 **PRESSURE INFILTRATION OF PACKED CERAMIC PARTICLES WITH BIMODAL DISTRIBUTIONS BY LIQUID ALUMINUM** 112

J.M. Molina, R.A. Saravanan, R. Arpon, C. Garcia-Cordovilla, E. Louis, J. Narciso

PP1-9 **STRUCTURE AND CHEMISTRY CHARACTERIZATION OF INTERFACES IN SQUEEZE CAST Al AND Mg MATRIX COMPOSITES REINFORCED WITH SHORT ALUMINA BASED FIBERS** 114

J. Sobczak, A. Wojciechowski, N. Sobczak, K. Pietrzak, D. Rudnik

| | | |
|---------------|--|------------|
| | THE PATTERN OF THREE-DIMENSIONAL THERMOCAPILLARY CONVECTION | |
| | <u>Z. Zeng</u> , H. Mizuseki, K. Ichinoseki, Y. Kawazoe | |
| PP1-10 | | 115 |
| | INFLUENCE OF PROCESSING ON THE MICROSTRUCTURE OF LEAD MAGNESIUM NIOBATE (PMN) CERAMIC MATERIALS | |
| | <u>A.L. Costa</u> , G. Fabbri, E. Roncari, C. Galassi | |
| PP1-11 | | 117 |

(Surface and Interface)

| | | |
|--------------|---|------------|
| PS1-1 | THE SURFACE TENSION OF PURE ALUMINUM IN NITROGEN ATMOSPHERE | 119 |
| | R.A. Saravanan, J.M. Molina, J. Narciso, C. Garcia-Cordovilla, <u>E. Louis</u> | |
| PS1-2 | THE DEVICE FOR MEASUREMENT OF SURFACE TENSION, DENSITY AND VISCOSITY OF HIGH TEMPERATURE MELTS | 121 |
| | I. Son, V. Sidorov, <u>P. Popel</u> , A. Svalov, V. Nehoroshev, V. Dobrjak, A. Kurichenko, V. Manov | |
| PS1-3 | MEASUREMENTS OF Si SURFACE TENSION USING THE ELECTROMAGNETIC LEVITATION METHOD AND THE SESSILE DROP METHOD | 123 |
| | H. Fujii, <u>A. Shiraki</u> , M. Kohno, T. Matsumoto, K. Nogi | |
| PS1-4 | APPLICATION OF THERMODYNAMIC DATABASES TO EVALUATION OF INTERFACIAL TENSION BETWEEN LIQUID IRON ALLOY AND MOLTEN SLAG | 125 |
| | <u>T. Tanaka</u> , S. Hara | |
| PS1-5 | APPLICATION OF THE COMPETITION ADSORPTION MODEL TO THE ANALYSIS OF ELECTROCAPILLARY CURVES OF COPPER AND ITS ALLOYS WITH SILVER IN BORON-SILICON OXIDE MELTS | 127 |
| | <u>O.A. Kobelev</u> , A.I. Sotnikov | |
| PS1-6 | SURFACE TENSION OF SOLID AND LIQUID METALS. RECOMMENDED VALUES | 129 |
| | A.B. Alchagirov, B.B. Alchagirov, T.M. Taova, K.B. Khokonov | |

Poster Session 2

November 21 (Tue.) 13:50-16:35

Poster Explanation

13:50 14:35

Chairs: A.Mortensen, A.Passerone, N.Sobczak

(Wetting)

| | | |
|--------------|--|------------|
| PW2-1 | WETTABILITY OF AS-DEPOSITED ON Si-SUBSTRATE DIAMOND-LIKE FILMS WITH METAL MELTS | 131 |
| | V.M. Perevertailo, <u>O.B. Loginova</u> , L.Y. Ostrovskaya | |
| PW2-2 | INTERACTION BETWEEN METAL MELTS AND ZIRCONIUM DIOXIDE | 133 |
| | V.M. Perevertailo, <u>O.B. Loginova</u> , N.G. Bagno | |
| PW2-3 | INVESTIGATIONS OF WETTABILITY AT THE PHASE BOUNDARY | 135 |
| | <u>B. Procyk</u> , B. Staniewicz-Brudnik, K. Majewska-Albin | |
| PW2-4 | COMPUTER SIMULATION METHODS IN MOLECULAR DESIGN OF THE NANOSCALE STRUCTURE FORMATION DURING MICRODROPLET SPREADING OVER SOLID SURFACE | 137 |
| | <u>V.M. Samsonov</u> , S.D. Muravyev | |
| PW2-5 | INFLUENCE OF PORE ON WETTABILITY OF ZIRCONIA CERAMIC BY MOLTEN MANGANESE | 139 |
| | <u>N. Shinozaki</u> , H. Kaku, K. Mukai | |
| PW2-6 | WETTING AND INTERFACE INTEGRITY OF Sn-Ag-Bi SOLDER/42 ALLOY SYSTEM | 141 |
| | <u>C. Hwang</u> , K. Sukanuma, E. Saiz, A.P. Tomsia | |
| PW2-7 | EFFECT OF SUBSTRATE PREPARATION ON WETTING BEHAVIOR AND STRUCTURE OF REACTION PRODUCT REGION IN Al-TiN SYSTEM | 143 |
| | N. Sobczak, <u>K. Pietrzak</u> , A. Wojciechowski, W. Radziwill, M. Ksiazek, L. Stobierski | |
| PW2-8 | THE EFFECT OF NON-STOICHIOMETRY ON WETTING OF Y_2O_{3-x} BY GOLD | 145 |
| | V. Zhuravlev, R. Voytovych, N. Eustathopoulos | |
| | (Processing) | |
| PP2-1 | EVALUATION OF BLASTED SURFACES BY FRACTAL DIMENSION | 147 |
| | S. Amada, <u>H. Sanda</u> | |
| PP2-2 | THE LIQUID SURFACE DURING COPPER MELTING WITH CARBON-MONOXIDE SLAG | 149 |
| | <u>A.W. Bydalek</u> | |
| PP2-3 | FABRICATION OF COMPOSITE PARTICLES FOR FUEL CELL ELECTRODES BY MECHANOFUSION TECHNIQUE | 151 |
| | <u>T. Fukui</u> , S. Ohara, H. Okawa, T. Hotta, M. Naito, T. Yokoyama, K. Nogi | |
| PP2-4 | X-RAY TRANSMISSION IN-SITU OBSERVATION OF FLUID FLOW INSIDE MOLTEN POOL DURING TIG ARC WELDING OF STAINLESS STEEL | 153 |

S. Katayama, N. Seto, M. Mizutani, A. Matsunawa

- PP2-5 PECULIARITIES OF JOINTS OF FORMATION IN ELECTRON BEAM SOLDERING UNDER GRAVITATION AND Z-GRAVITY CONDITIONS** 155
V.F. Khorunov, V.I. Shvets
- PP2-6 PHYSICAL AND CHEMICAL PROCESSES OF BRONZE COVER FORMING ON THE CAST IRONS** 157
A.M. Ovrutsky, O.A. Posulaeva
- PP2-7 THE INFLUENCE OF THE FREQUENCY OF HOT-PRESSING ON THE SURFACE MODIFICATION OF PRODUCED CERAMICS.** 158
L. L. Sartinska
- PP2-8 SYNTHESIS OF CARBON NITRIDE FILMS BY HIGH-DENSITY HELICON-PLASMA SPUTTERING** 159
Y. Setsuhara, Y. Takaki, S. Miyake, M. Kumagai, Y. Sakawa, T. Shoji
- PP2-9 EFFECT OF WETTABILITY OF ALUMINIUM-STEEL WELDED JOINT ON ITS STRENGTH** 161
V.R. Ryabov, A.Ya. Ishchenko
- PP2-10 EFFECT OF GRAVITY AND SURFACE TENSION ON CONVECTION IN MOLTEN POOL** 162
H. Fujii, Y. Sumi, T. Yamamoto, K. Nogi
- (Surface and Interface)
- PS2-1 INVESTIGATION OF THE METAL MICRODROP SURFACE TENSION ON THE BASIS OF THE THERMODYNAMIC PERTURBATION THEORY** 165
V.M. Samsonov, A.N. Bazulev, S.D. Muravyev
- PS2-2 EFFECT OF THE INTERFACIAL BONDING BETWEEN THE DISPERSOID AND THE MATRIX ON FRICTION BEHAVIOUR OF ALUMINIUM ALLOY – SiC PARTICULATE COMPOSITES** 167
T.A. Chernyshova, L.I. Kobeleva, D.N. Plishkin
- PS2-3 THEORY OF GRAIN BOUNDARY SEGREGATION IN METAL ALLOYS** 169
K.P. Zhilokov, B.S. Karamurzov, V.A. Sozaev
- PS2-4 SIZE EFFECTS OF SURFACE PROPERTIES OF ALLOYS** 170
V.A. Sozaev, V.V. Chernov, D.V. Iaganov
- PS2-5 NUMERICAL ANALYSIS OF LIQUID SOLID INTERFACE MIGRATION DURING TRANSIENT LIQUID PHASE BONDING** 171
Y. Takahashi, K. Morimoto, K. Inoue
- PS2-6 AN INTERFACIAL FORCE ACTING ON A SPHERICAL PARTICLE IN THE INTERFACIAL ENERGY GRADIENT** 173
K.K. Kelemen, G. Kaptay

| | | |
|--------------|--|------------|
| PS2-7 | ELECTROCAPILLARY CURVE OF COPPER IN OXIDE MELT BY THE CHANGE OF POTENTIAL DETERMINING COMPONENTS <u>O.A. Kobelev</u> , A.I. Sotnikov | <i>175</i> |
| PS2-8 | ELECTRON WORK FUNCTION OF Na-K, Na-Rb AND K-Cs BINARY ALLOYS A.B. Alchagirov, B.B. Alchagirov, K.B. Khokonov, M.A. Yaganov | <i>176</i> |
| PS2-9 | SURFACE TENSION OF ALUMINIUM AND ITS ALLOYS WITH INDIUM AND TIN <u>K.I. Ibragimov</u> , B.B. Alchagirov, A.M. Chochaeva, T.M. Taova, K.B. Khokonov | <i>177</i> |