



20 - 23 November 2017, Athens, Greece

Program at a Glance

| Monday 20 November | | Tuesday 21 November | | Wednesday 22 November | | Thursday 23 November | |
|--------------------|---------------------------------------|---------------------|--|-----------------------|--|----------------------|-----------------------|
| 9:00 | Thermoelectricity Workshop | 8:30 | Registration | 8:45 | In the Memory of Ted Janssen | 8:45 | Science Board Meeting |
| | | 9:00 | Welcome | 9:00 | Invited talk by Dr. Ishimasa | | |
| | | 9:30 | Physical, chemical and mechanical properties | 9:30 | Complexity in periodic and aperiodic metallic alloys and compounds (theory and experiment) | | |
| | | 10:30 | Coffee break | 10:30 | Coffee break | 10:15 | Coffee break |
| | | 11:00 | High-entropy alloys | 11:00 | Materials for thermoelectricity and magneto-caloric application | 10:30 | Governing Board |
| | | 12:30 | Lunch break | 12:40 | Lunch break | 12:00 | Lunch |
| | | 13:30 | Coating technologies | 13:40 | Development of new metallic alloys and compounds | | |
| | | 15:00 | Coffee break | 14:50 | Coffee break | | |
| | | 15:30 | Structure determination, stability | 15:10 | Physical, chemical and mechanical properties | | |
| 18:00 | Registration/ Welcome Reception | 17:15 | Poster Session | 16:10 | Concluding Remarks | | |
| | | | | 20:00 | Gala Dinner | | |

Notes:

- Regular oral presentations are allocated 20 minutes (including time for questions)
- Invited oral presentations are allocated 30 minutes (including time for questions)



Conference Program

| Monday 20 November | |
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| 18:00 | Registration – Welcome Reception |

| Tuesday 21 November | |
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| 8:30 - 9:30 | Registration Desk Open |
| 9:00 | Welcome |
| 9:30 - 10:30 | Physical, chemical and mechanical properties <i>Chair: E. Hristoforou</i> |
| 9:30 | <i>Superconductivity in rare-earth-bearing half-Heusler bismuthides REMEBi (RE = Y, Lu, Dy, Ho, Er; ME =Pt, Pd)</i> P. Wiśniewski, O. Pavlosiuk, D. Kaczorowski |
| 9:50 | <i>From nano-structuring to strong inter-valley scattering: Optical study of dichalcogenides 1T-TaS2 and 1T-TiSe2</i> K. Velebit, P. Popčević, I. Batistić, M. Eichler, M. Dressel, H. Berger, L. Forró, N. Barišić, E. Tutiš |
| 10:10 | <i>Advances in residual stress tensor distribution monitoring in ferromagnetic steels</i> S. Aggelopoulos, P. Vourna, A. Ktena, E. Hristoforou |
| 10:30 - 11:00 | Coffee break |
| 11:00 - 12:30 | High-entropy alloys <i>Chair: J. Dolinšek</i> |
| 11:00 | <i>Eutectic CoCrFeNiZrx high-entropy alloys: Magnetism complicated by the microstructure of a "real" multiphase HEA</i> P. Koželj, S. Vrtnik, S. Guo, S. Sheikh, A. Jelen, J. Luzar, A. Kocjan, Z. Jagličić, A. Meden, H. J. Kim, H. Guim, J. Dolinšek |

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| 11:30 | <i>Microstructure and physical properties of single crystalline FeCoCrMnAl high-entropy alloy</i> A. Jelen, P. Koželj, S. Vrtnik, M. Feuerbacher, J. Dolinšek |
| 11:50 | <i>Magnetoresistance in high-entropy alloys</i> S. Vrtnik, J. Luzar, P. Koželj, M. Feuerbacher, S. Guo, S. Sheikh, J. Dolinšek |
| 12:10 | <i>Growth and Plasticity of FeCoCrMnNi high-entropy alloys</i> M. Feuerbacher, C. Thomas, T. Lienig |
| 12:30 - 13:30 | Lunch break |
| 13:30 - 15:00 | Coating Technologies <i>Chair: J. Ledieu</i> |
| 13:30 | <i>Electrodeposited Ni- alloy composite coatings reinforced by TiO₂ nanoparticles</i> E. Rosolymou, D. Tsoukleris, M. E. Kassalia, M. Pytharoulis, E. A. Pavlatou |
| 14:00 | <i>Magnetic behavior of BFO-PVDF nanocomposite depending on BFO concentration</i> K. Chybczyńska, E. Markiewicz, B. Hilczer |
| 14:20 | <i>Molecular Thin Films Templated on Quasicrystalline Surfaces</i> N. Kalashnyk, J. Ledieu, É. Gaudry, C. Cui, A.-P. Tsai, V. Fournée |
| 14:40 | <i>Structure modifications of the clathrate-I phase in the system Ba-Au-Ge</i> D. Nguyen, M. Baitinger, J. Grin |
| 15:00 - 15:30 | Coffee break |
| 15:30 - 17:00 | Structure determination, stability <i>Chair: A. Smontara</i> |
| 15:30 | <i>Electronic instabilities in quasi-2D-monophosphate tungsten bronzes</i> A. Minelli, E. Duverger-Nudellec, A. Pautrat, O. Pérez, M. de Boissieu, A. Bosak |
| 16:00 | <i>Additive phasonic correction for decagonal quasicrystal</i> I. Buganski, J. Wolny |
| 16:20 | <i>Investigation of the (100) surface of the complex intermetallic Ce₃Pd₂OSi₆</i> F. Abdel-Hamid, É. Gaudry, M.-C. De Weerd, J. Ledieu, V. Fournée |
| 16:40 | <i>Unbiased structure prediction for icosahedral quasicrystal AlCuFe</i> M. Mihalkovic |
| 17:15 - 19:30 | Poster Session |
| <i>Investigation of the Zn–Sc system in vicinity of 1/1-Zn₁₇₋₁₈Sc₃ quasicrystalline approximant</i> I. Černičková, L. Čaplovič, P. Priputen, D. Janičkovič, J. Janovec | |

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| <i>Preliminary isothermal section of the Al–Pd–Co phase diagram at 1020°C</i> L. Ďuriška, I. Černíčková, P. Priputen, J. Janovec |
| <i>Epitaxial growth of the Al₉Ir₂ compound on an Al(100) surface</i> J. Kadok, K. Pussi, É. Gaudry, S. Šturm, B. Ambrožič, M-C. de Weerd, Yu. Prots, V.Fournée, J. Ledieu |
| <i>Surface structure of the Ba₈Au_{5.25}Ge_{40.75} clathrate induced by charge balance</i> K. Anand, C. Allio, C. Krellner, H.D. Nguyen, M. Baitinger, Y. Grin, J. Ledieu, V. Fournée, É. Gaudry |
| <i>Superalloys-like microstructure in Ga-Co-Cu system</i> P. Priputen, M. Drienovský, I. Černíčková, J. Janovec |
| <i>Single crystal growth of the intermetallic compound CuAl₂</i> S. Püschel, A. Baccari, P. Gille |
| <i>Surface structure of Al₂Cu(001) revealed by ab initio calculations coupled with a cluster expansion approach</i> T. Jarrin, X. Rozanska, E. Wimmer, É. Gaudry |
| <i>Chemical Vapor Deposition of Al₁₃Fe₄ Highly Selective Catalytic Films for the Semi-Hydrogenation of Acetylene</i> I.G. Aviziotis, T. Duguet, K. Soussi, M. Heggen, M.-C. Lafont, F. Morfin, S. Mishra, S. Daniele, C. Vahlas, A.G. Boudouvis |
| <i>Synthesis of copper, copper-nickel, tin/tin oxide nanowires by applying template-assisted electrodeposition</i> E. Rosolymou, I. Papadakos, E.A. Pavlatou |
| <i>Single crystal growth by the Czochralski method and characterization of FeGa_{3-x}Ge_x</i> K. Bader, P. Gille |

| Wednesday 22 November | |
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| 8:45 - 9:00 | In the memory of Ted Janssen |
| 9:00 - 9:30 | Invited talk : Dr. Tsutimu Ishimasa |
| 9:30 - 10:30 | Complexity in periodic and aperiodic metallic alloys and compounds (theory and experiment) <i>Chair: S. Förster</i> |
| 9:30 | <i>Quasicrystals and approximants in ternary oxide layers</i> S. Förster , W. Widdra |
| 9:50 | <i>Proximity effect in a superconductor-quasicrystal junction</i> A. Jagannathan |

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| 10:10 | <i>Fibonacci modulation of a C₆₀ thin film</i> S. Coates, R. McGrath, H. R. Sharma |
| 10:30 - 11:00 | Coffee break |
| 11:00 - 12:40 | Materials for thermoelectricity and magneto-caloric application <i>Chair: D. Kaczorowski</i> |
| 11:00 | <i>Insights into the lattice thermal conductivity of thermoelectric clathrates: A DFT study</i> H. Euchner, S. Pailhès, V. Giordano, M. de Boissieu |
| 11:20 | <i>Thermoelectric properties and peculiarities of electron transport in half-Heusler phases LuNiSb, LuPdSb, ErPdSb, YPdSb, GdPtSb</i> K. Ciesielski, D. Gnida, D. Kaczorowski |
| 11:40 | <i>A new wearable magnetic cardiograph based on the giant magneto-impedance effect</i> S. Aggelopoulos, A. Ktena, E. Hristoforou |
| 12:00 | <i>Investigation of the thermal properties of single-crystalline SnSe at low temperatures</i> M. Zorić, P. Gille, A. Bilušić, A. Smontara, P. Popčević |
| 12:20 | <i>The large distance travelled by heat carriers in a poor thermal crystalline conductor</i> S. Pailhès, P.-F. Lory, V. M. Giordano, H. Euchner, H. D. Nguyen, H. Borrmann, M. Schmidt, M. Baitinger, M. Ikeda, P. Tomeš, M. Mihalkovič, C. Allio, M. Robert Johnson, H. Schober, Y. Sidis, L.-P. Regnault, J. Ollivier, S. Paschen, Y. Grin and M. de Boissieu |
| 12:40 - 13:40 | Lunch break |
| 13:40 - 14:50 | Development of new metallic alloys and compounds <i>Chair: Y. Grin</i> |
| 13:40 | <i>Complex crystal structures of new intermetallic compounds of Beryllium</i> A. Amon, A. Ormeci, Y. Prots, M. Bobnar, M. Avdeev, A. Leithe-Jasper, Y. Grin |
| 14:10 | <i>Fe-Al intermetallics through an innovative production route</i> W. Kochanek, K. Gruber, S. Jana, S. Milenkovic, P. Hanus, P. Kavouras, C.A. Charitidis |
| 14:30 | <i>Structural complexity by 2D intergrowth in Ca₁₂[Mn₁₉N₂₃] and Ca₁₃₃[Mn₂₁₆N₂₆₀]</i> P. Höhn, A. Ovchinnikov, M. Bobnar, Y. Prots, H. Borrmann, J. Sichelschmidt, Y. Grin |
| 14:50 - 15:20 | Coffee break |
| 15:20 - 16:40 | Physical, chemical and mechanical properties <i>Chair: M. Wencka</i> |
| 15:20 | <i>Physical properties of Ga₃Ni₂ intermetallic-a new promising catalyst for carbon dioxide reduction</i> M. Wencka |

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| 15:40 | <i>Physical properties of In_3Ni_2 intermetallic catalyst</i> M. Krnel, P. Koželj, P. Gille, J. Dolinšek |
| 16:00 | <i>Physical properties of the $CeCo_{1-x}Fe_xGe_3$ series near the Quantum Critical Point</i> P. Skokowski, K. Synoradzki, T. Toliński |
| 16:20 | Concluding Remarks |
| 20:00 | Gala Dinner |

| Thursday 23 November | |
|-----------------------------|------------------------------|
| 8:45 | Science Board Meeting |
| 10:15 - 10:30 | Coffee break |
| 10:30 | Governing Board |
| 12:00 | Lunch |