

MECAME 2018, Zadar, Croatia (In honour of Professor Frank Berry)

Conference Programme (only presenters are listed)

Sunday 27/05/2018

17:00 – 19:00 Registration at Hotel Kolovare

20:00 Welcome Reception at Hotel Kolovare

Monday 28/05/2018

09:00 – 10:30 SESSION 1

09:00 – 09:15 **Opening Ceremony** (M. Ristić, T. Nishida, V.K. Sharma)

09:15 – 09:45 Jose F. Marco: *Overview of the Scientific Achievements of Prof. Dr. Frank J. Berry*

09:45 – 10:30 Peter Adler: *Double Perovskite Oxides with 3d and 4d or 5d Ions: A Versatile Playground for Magnetism*

10:30 – 11:00 Coffee Break

11:00 – 13:00 SESSION 2 (Chairperson: V. Ksenofontov)

11:00 – 11:30 Yann Garcia: *Sensing Temperature, Pressure, Alcohols and Toxic Industrial Chemicals through Coordination Assemblies*

11:30 – 12:00 Satoru Nakashima: *On/Off Spin-Crossover Phenomenon and Control of the Transition Temperature in Assembled Iron(II) Complexes*

12:00 – 12:30 Yiannis Sanakis: *Heteronuclear Fe/Ni Clusters*

12:30 – 13:00 Masashi Kaneko: *Benchmarking of DFT with Mössbauer Isomer Shift Values for Heavy Metal Complexes*

13:00 – 14:30 Lunch Time

14:30 – 16:30 SESSION 3 (Chairperson: Z. Homonnay)

14:30 – 15:00 Shiro Kubuki: *⁵⁷Fe-Mössbauer and Magnetic Susceptibility Studies of Iron Phosphate Glass Prepared by Sol-Gel Method*

15:00 – 15:15 Tetsuaki Nishida: *Substitution Effect in Highly Conductive Barium Iron Vanadate Glass*

15:15 – 15:45 Nobuto Oka: *Local Structure of Conductive Vanadate Glass Applied to the Oxygen Electrode for Rechargeable Metal-Air Battery*

15:45 – 16:00 Yuta Kobayashi: *Relationship between Structure and Electrical Conductivity of Tin Phosphate containing Vanadate Glass Ceramics*

16:00 – 16:15 Yuka Katayama: *Chemical Structure and Visible-Light Activated Photocatalytic Effect of Iron-containing Glass Prepared from Slag*

16:15 – 16:30 Sakura Morishita: *⁵⁷Fe-Mössbauer and Magnetic Properties of Iron Oxide Nanoparticles in Silica Matrix Prepared by Sol-gel method*

16:30 – 17:00 Coffee Break

17:00 – 18:30 **POSTER SESSION** (all posters will be displayed during the entire conference)

Tuesday 29/05/2018

09:00 – 10:30 SESSION 4 (Chairperson: M. Reissner)

09:00 – 09:45 Stanislaw M. Dubiel: *Effect of Magnetism on Lattice Dynamics*

09:45 – 10:15 Fernando Plazaola: *¹¹⁹Sn Mössbauer Spectroscopy in the Study of Metamagnetic Alloys*

10:15 – 10:30 Judit Balogh: *On the Asymmetry of Fe-on-Ti and Ti-on-Fe Interfaces*

10:30 – 11:00 Coffee Break

11:00 – 13:00 SESSION 5 (Chairperson: D.L. Nagy)

11:00 – 11:30 Vadim Ksenofontov: *Mössbauer Studies of Superconducting Iron Pnictides and Chalcogenides*

11:30 – 12:00 Yoshio Kobayashi: *In-Beam Mössbauer Study of ⁵⁷Mn Implanted into CaF₂*

12:00 – 12:30 Satoshi Tsutsui: *Precise Determination of Hyperfine Interaction and Second-order Doppler Shift in ¹⁴⁹Sm Mössbauer Transition*

12:30 – 13:00 Yasuhiro Yamada: *In-Beam Mössbauer Study of ⁵⁷Mn Implanted into Ice*

13:00 – 14:30 Lunch Time

15:00 Conference Excursion (Nin, Pag)

Wednesday 30/05/2018

09:00 – 10:45 SESSION 6 (Chairperson Y. Garcia)

09:00 – 09:45 Pierre-Emmanuel Lippens: *Phosphate Based Electrodes for Li-Ion and Na-Ion Batteries*

09:45 – 10:15 Jean-Claude Jumas: *The Contribution of Mössbauer Spectroscopy to Study New Materials for Energy Applications*

10:15 – 10:45 Darko Hanzel: *Influence of Support Properties on FePO₄ Catalysts for the Selective Oxidation of Methane to Methanol*

10:45 - 11:15 Coffee Break

11:15 – 13:00 SESSION 7 (Chairperson: P.-E. Lippens)

11:15 – 11:45 Junhu Wang: *Prussian Blue Analogues Derivated Multi-Metal Oxides/Nitrides as Fenton-Like Catalysts for the Degradation of Organic Pollutants and Its Mechanism*

11:45 – 12:15 Ayyakannu S. Ganeshraja: *Tin- or Iron-Doped Titania Nanocomposites: Mössbauer Spectroscopic, Magnetic and Photocatalytic Investigations*

12:15 – 12:45 Libor Machala: *Iron and Iron Oxide Based Nanomaterials in Environmental Applications - Contribution of Mossbauer Spectroscopy*

12:45 – 13:00 Virender K. Sharma: *Interactions of Ferrate(VI) with Natural Organic Matter: Mössbauer Spectroscopy Investigation*

13:00 – 14:30 Lunch Time

14:30 – 16:00 SESSION 8 (Chairperson: S.M. Dubiel)

14:30 – 15:00 Dénes L. Nagy: *In-Situ Study of Electric-Field-Controlled Ion Transport in the Fe/BaTiO₃ Interface*

15:00 – 15:30 Ralf Witte: *Epitaxial Strain Adaption Mechanisms in FeRh Thin Films Probed by Mössbauer Spectroscopy and Nuclear Inelastic Scattering*

15:30 – 16:00 Göstar Klingelhöfer: *13 Years of Mars-Exploration-Rover Mission: Achievements and Lessons Learned*

16:00 – 16:30 Coffee Break

16:30 – 18:45 SESSION 9 (Chairperson: J.-M. Grenèche)

- 16:30 – 17:00 Michael Oshtrakh: *Study of Some Stony and Stony-Iron Meteorites Using X-Ray Diffraction and Mössbauer Spectroscopy: Fe²⁺ Partitioning Between the M1 and M2 Sites in Silicate Phases*
- 17:00 – 17:15 Károly Lázár: *Iron in Minerals of Boda Claystone Formation*
- 17:15 – 17:30 Zoltan Homonnay: *Characterisation of Nanomagnetites Co-Precipitated in Inert Gas Atmosphere for Plant Nutrition*
- 17:30 – 17:45 Dalibor M. Stanković: *Magnetite Nanoflowers Decorated on Reduced Graphene Oxide for Efficient Removal of Reactive Dyes*
- 17:45 – 18:00 Irina Alenkina: *Mössbauer Spectroscopy and Magnetization Measurements of Spleen and Liver Tissues from Patients with Some Hematological Malignant Diseases*
- 18:00 – 18:15 Krisztina Kovács: *Effect of Arsenic on Iron Uptake and Distribution in Plants. A Mössbauer spectroscopic study*
- 18:15 – 18:45 Georges Dénès: *Oxidation and Passivating Effect in Tin(II) Fluoride and Chloride Fluoride Solid Solutions: A ¹¹⁹Sn Mössbauer Study*

20:00 Conference Dinner

Thursday 31/05/2018

09:00 – 11:00 SESSION 10 (Chairperson: J.F. Marco)

- 09:00 – 09:30 Jean-Marc Greneche: *Magnetisation and Mössbauer Study of Weberites A²⁺B³⁺F₅(Htz)*
- 09:30 – 10:00 Jun Okabayashi: *Probing Orbital Magnetic Moments by Mössbauer and X-Ray Absorption Spectroscopies in FeV₂O₄*
- 10:00 – 10:30 Silvana J. Stewart: *Role of Defects on the Electronic and Magnetic Properties of Frustrated ZnFe₂O₄ Spinel*
- 10:30 – 10:45 Alex Scrimshire: *Determination of Debye Temperatures and Lamb-Mössbauer Factors for LnFeO₃ Orthoferrite Perovskites (Ln = La, Nd, Sm, Eu, Gd)*
- 10:45 Frank J. Berry: *Less Than a Half-Life Remembered*

Closing Ceremony

POSTER PRESENTATIONS:

- P1** Lidija Androš Dubraja: *Electrochemical Tuning of Magnetism in Ordered Mesoporous Transition Metal Ferrite Films*
- P2** Frank J. Berry: *Magnetic Interactions in Fe_{1-x}M_xSb₂O₄, M=Mg,Co, Deduced from Mossbauer Spectroscopy*
- P3** Marko Bošković: *Design and Construction of Dynamic Hysteresis Magnetometer*
- P4** Zara Cherkezova-Zheleva: *Study on the Nature of Particulate Matters in Fly and Bottom Ashes from Power Plants*
- P5** Guiomar Delgado Soria: *Strontium Hexaferrite Platelets: Between Domains and Simulations*
- P6** Stjepko Krehula: *Synthesis and Microstructural Properties of Cu-Doped Goethite and Cu-doped Hematite Nanoneedles*
- P7** Stjepko Krehula: *Synthesis and Properties of Ni-doped Goethite and Ni-doped Hematite Nanorods*
- P8** Erno Kuzmann: *¹¹⁹Sn Mössbauer Study of Sn-Containing Radiopharmaceutical Kits*
- P9** Erno Kuzmann: *Spin-State and Structure of Tris(Glyoximate) Iron Complexes*
- P10** Jose F. Marco: *Mössbauer Characterisation of Synthetic Analogues of the Helvite Minerals Fe₄M₄[BeSiO₄]₆X₂ (M = Fe, Mn, Zn; X = S, Se)*
- P11** Naoki Nishida: *Manganese Doped Feroxyhyte Nano-Urchins Produced by Chemical Methods*
- P12** Miloš Ognjanović: *Bifunctional Mg-Doped Magnetite Nanoparticles: Tuning Their Efficiency toward Potential Application in Magnetic Hyperthermia and Electrochemical Biosensors*
- P13** Yosdel Plasencia: *Spin Crossover Phenomenon in Iron Nitroprusside Intercalated With Pyrazine*
- P14** Mira Ristić: *Microstructural and magnetic properties of electrospun α-Fe₂O₃/CuFe₂O₄ nanocomposites*
- P15** María Sánchez-Arenillas: *Mössbauer Studies on Nanosecond Infrared Pulsed Laser Deposition of Cobalt Ferrite Thin Films on Si (100) Substrates*
- P16** N. Yamaguchi, T. Izumi: *Local Structural Analysis of Conductive Vanadate Glass Containing Tin or Indium by Means of Mössbauer Spectroscopy*