

Program of MECAME - GFSM 2019

Sunday 19 May

17h00 - 19h00 Registration

19h00 - 21h00 Welcome reception

Monday 20 May

9h00 - 9h20 Opening session

9h20 - 10h30 Session 1 (Chairperson : Guido Langouche)

9h20 - 9h50 Philipp Gütlich (I 1)

In-situ Mössbauer spectroscopy on Mars -in memoriam and tribute to Göstar Klingelhöfer

9h50 - 10h15 Yutaka Yoshida (I 2)

Mössbauer spectroscopic microscope (MSM): studies on diffusion in materials

10h15 - 10h30 Jérôme Bonnet (LEA)

Presentation of the Laboratoire d'étalons d'activité (LEA, Orano)

10h30 - 11h00 Coffee break

11h00 - 12h30 Session 2 (Chairperson : Philipp Gütlich)

11h00 - 11h25 Frank J. Berry (I 3)

Anion incorporation within mineral-related materials

11h25 - 11h50 Yunnan Guo (I 4)

Iron(II)-based molecular materials toward chemosensors for the vapor-phase detection of alcohols and toxic gases

11h50 - 12h15 Michael I. Oshtrakh (I 5)

Mössbauer spectroscopy and X-ray diffraction probing of variability among Chelyabinsk meteoroid fragments

12h15 - 12h30 Jolanta Galazka-Friedman (O 1)

Application of Mössbauer spectroscopy for classification of ordinary chondrites - different database and different methods.

12h30 - 13h45 Lunch

13h45 - 15h30 Session 3 (Chairperson : Lorenzo Stievano)

13h45 - 14h10 Volker Schünemann (I 6)

Novel approaches to study spin crossover systems and single molecule magnets

14h10 - 14h35 Raphael P. Hermann (I 7)

The spin structure in iron oxide nanoparticles as seen by neutron and nuclear resonance scattering

14h35 - 15h00 Satoshi Tsutsui (I 8)

Electronic and atomic dynamics in Sm and Eu cage-structured intermetallics

15h00 - 15h15 Andrzej Friedman (O 2)

Mössbauer spectroscopy as a useful tool for the understanding of various types of neurodegeneration

15h15 - 15h30 Irina Alenkina (O 3)

Characterization of the iron core in ferrifol[®], a pharmaceutical ferritin analogue, by high resolution transmission electron microscopy, magnetization measurements and Mössbauer spectroscopy

15h30 - 16h00 Coffee break

16h00 - 17h30 Session 4 (Chairperson : Jean Ladrière)

16h00 - 16h25 Jean-Marie R. Génin (I 9)

⁵⁷Fe and ⁶¹Ni Mössbauer spectroscopy; analogies between the biogeochemical cycles of iron and nickel in hydromorphic soils and search of new Ni^{II}-Ni^{III} LDH minerals homologous to fougèrite, trébeurdenite and mössbauerite.

16h25 - 16h50 Tadeusz Szumiata (I 10)

Iron speciation in technogenic environmental samples studied with Mössbauer spectrometry

16h50 - 17h15 Zara Cherkezova-Zheleva (I 11)

Study on the reuse of Fe-based amorphous alloys containing CRM for wastewater remediation

17h15 - 17h30 Angelina Antonova (O 4)

Investigations of siderite, magnetite and ferrihydrite transformations by syntrophic culture

17h30 - 18h30 Session 5 (Chairperson : Samuel Jouen)

17h30 - 18h30 Flash presentations (P 1 - P 12) and poster session

18h30 - 19h00 Wine & Piano, Itsko Yoshida

Tuesday 21 May

8h45 - 10h30 Session 6 (Chairperson : Frank Berry)

8h45 - 9h10 Frédéric Jaouen (I 12)

Understanding active sites in pyrolyzed Fe-N-C catalysts for fuel cell cathodes by bridging density functional theory calculations and ⁵⁷Fe Mössbauer spectroscopy

9h10 - 9h35 Junhu Wang (I 13)

Unique role of Mössbauer spectroscopy in assessing structural features of heterogeneous catalysts

9h35 - 10h00 Stjepko Krehula (I 14)

Influence of doping on the structural, optical and photocatalytic properties of iron oxide nanoparticles

10h00 - 10h15 Irfan Khan (O 5)

The relationship between structure and photo-fenton catalytic ability of iron-containing aluminosilicate glass prepared by sol-gel method

10h15 - 10h30 Ahmed S. Ali (O 6)

Mössbauer and photocatalytic studies of nitric acid treated domestic waste slag for methylene blue decomposition

10h30 - 11h00 Coffee break

11h00 - 12h30 Session 7 (Chairperson : Jose Luis Tirado)

11h00 - 11h25 Abdelfattah Mahmoud (I 15)

Electrode materials for Li-ion and Na-ion batteries prepared by hydrothermal and spray drying methods

11h25 - 11h50 Ernő Kuzmann (I 16)

Electrodeposited Sn-Fe-Co-Ni quaternary alloys characterised by ⁵⁷Fe and ¹¹⁹Sn Mössbauer spectroscopy and other methods

11h50 - 12h15 Jose F. Marco (I 17)

Mössbauer investigations on lithium manganese ferrites with spinel-related structure

12h15 - 12h30 Vincent Gabaudan (O 7)

SnSb vs. Sn: improving the performance of Sn-based anodes for K-ion batteries by synergetic alloying with Sb

12h30 - 13h45 Lunch

13h45 - 15h30 Session 8 (Chairperson : Yann Garcia)

13h45 - 14h10 Takafumi Kitazawa (I 18)

Mössbauer spectroscopic evolution on spin crossover Hofmann-like coordination polymers as smart materials

14h10 - 14h35 Yiannis Sanakis (I 19)

A family of redox active octanuclear clusters containing a Fe₄O₄-cubane core

14h35 - 15h00 Helena J. Shepherd (I 20)

New pathways to switchable molecular materials

15h00 - 15h15 Shufang Xue (O 8)

Investigation of the relationship between ligand substituents and spin state in a family of iron(II) complexes

15h15 - 15h30 Houria Benaissa (O 9)

Triazole-based Fe(II) spin crossover chains in pores of SBA15

15h30 - 16h00 Coffee break

16h00 - 17h20 Session 9 (Chairperson : Jose F. Marco)

16h00 - 16h25 Julien Fourcade (I 21)

Examples of Mössbauer spectroscopy uses that served product development; when very small variations can help understand large differences

16h25 - 16h50 Vadim Ksenofontov (I 22)

Mössbauer analysis of the isoelectronic substitution of selenium with sulfur in superconducting Rb_{0.8}Fe_{1.6}Se₂

16h50 - 17h05 Shinji Kitao (O 10)

¹²⁵Te-Mössbauer study of Fe_{1.1}Te and FeTe_{0.5}Se_{0.5} superconductor

17h05 - 17h20 Catherine Cordier (O 11)

Mössbauer characterization of HEA-CCA alloys during development

17h20 - 18h30 Session 10 (Chairperson : Yutaka Yoshida)

17h20 – 18h30 Flash presentations (**P13 - P23**) and poster session

17h30 – 18h30 GFSM meeting (for members only)

Wednesday 22 May

8h45 - 10h30 Session 11 (Chairperson : Moulay Tahar Sougrati)

8h45 - 9h10 Rémi Dedryvère (I 23)

X-ray photoelectron spectroscopy and its applications in the field of batteries

9h10 - 9h35 Tatsuo Fujii (I 24)

In situ Mössbauer analysis of bacterial iron-oxide nano-particles for lithium-ion battery

9h35 - 10h00 Jose-Luis Tirado (I 25)

Mössbauer spectroscopy of conversion electrodes for Na-ion batteries

10h00 - 10h15 Shiro Kubuki (O 12)

Mössbauer study of iron- and tin- containing vanadate glass applying as a cathode active material for sodium ion battery

10h15 - 10h30 Mbolantenaina Rakotomalala Robinson (O 13)

Starch functionalized magnetite for arsenic nanoremediation

10h30 - 11h00 Coffee break

11h00 - 12h30 Session 12 (Chairperson : Ernő Kuzmann)

11h00 - 11h25 Michael Reissner (I 26)

Radical generation and dissolution mechanisms of chrysotile asbestos fibres

11h25 - 11h50 Stanislaw M. Dubiel (I 27)

Microscopic phenomena in Fe-Cr alloys

11h50 - 12h15 Georges Dénès (I 28)

Joy and frustrations of growing crystals of divalent tin compounds: getting only powders or low-dimensional crystals

12h15 - 12h30 Jean-Claude Jumas (I 29)

Mössbauer spectroscopy in Montpellier: from fundamental to industrial applications

12h30 - 13h45 Lunch

14h00 Departure for Aigues Mortes by bus

15h00 - 17h30 Cruise - Camargue

17h30 - 19h00 Visit of Aigues Mortes

19h00 - 20h00 Aperitif at "La Tour de Constance" (Aigues Mortes)

20h00 - 23h00 Dinner at the restaurant "La Camargue" (Aigues Mortes)

Thursday 23 May

9h00 - 10h30 Session 13 (Chairperson : Elisa Baggio-Saitovitch)

9h00 - 9h25 Jean-Marc Grenèche (I 30)

Magnetisation, zero-field and in-field Mössbauer studies of weberites $A^{2+}B^{3+}F_5$ (Htaz)

9h25 - 9h50 Darko Hanžel (I 31)

Unraveling the arrangement of Al and Fe within the framework explains the magnetism of mixed-metal MIL-100 (Al, Fe)

9h50 - 10h15 Mohammed Sajieddine (I 32)

Magnetic and Mössbauer studies of $NiZnFe_2O_4$ prepared by co-precipitation method

10h15 - 10h30 Diana Pchelina (O 14)

Correlation between Mössbauer and magnetic properties in low-doped lanthanum manganites $La_{0.95}A_{0.05}Mn_{0.98}Fe_{0.02}O_3$ (A = Ca, Sr)

10h30 - 11h00 Coffee break

11h00 - 12h20 Session 14 (Chairperson : Jean-Marc Grenèche)

11h00 - 11h25 Victor Kuncser (I 33)

Mössbauer spectroscopy – a powerful tool in explaining particularities of Specific Absorption Rates of Fe oxide nanoparticles in magnetic hyperthermia

11h25 - 11h40 Guiomar Delgado Soria (O 15)

Strontium hexaferrite platelets: a comprehensive soft X-ray absorption and Mössbauer spectroscopy study

11h40 - 11h55 Cynthia Paola Contreras Medrano (O 16)

Partial order and magnetic frustration on low dimensional substructures of Ni oxyborates

11h55 - 12h20 Israel Felner (I 34)

Testing Einstein's clock hypothesis and the universal limit of acceleration by conventional and synchrotron MS

12h20 - 12h45 Closing session