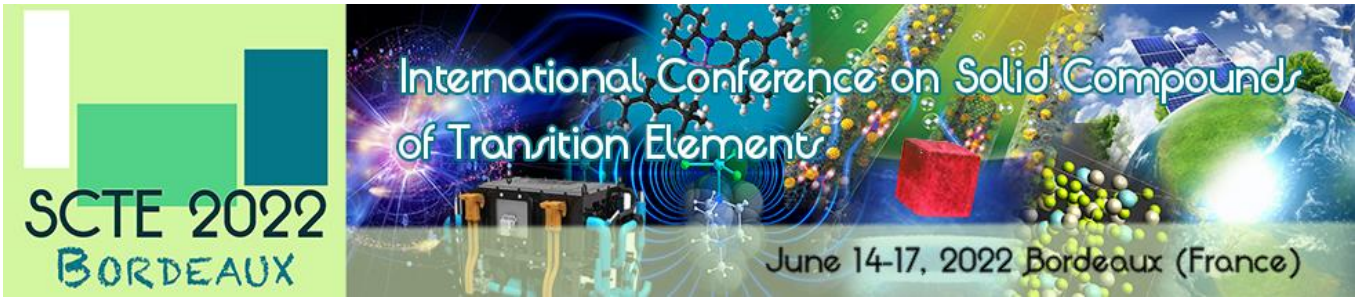

PROGRAM

Tuesday, June 14

09:00 *Welcome coffee and Registration*

10:00 **Opening Ceremony**

10h15 **Plenary 1 : A. Minelli**

Department of Chemistry, University of Oxford (United Kingdom)

Charge density waves studied through total scattering methods

11:00 **Session 1 - Chemistry 1**

O01 **Novel Zintl phases based on group 15 elements with and late d-metals and lathanides**
S. Bobev - University of Delaware, Newark (USA)

O02 **Ternary *AE*LiAu (*AE* = Ca, Sr, Ba, Eu, Yb) phases with TiNiSi type structure**
P. Höhn - Max Planck Institute for Chemical Physics of Solids, Dresden (Germany)

O03 **New intermetallics observed in Friction Stir Welding**
M. Martinez Celis – Université de Caen Normandie, ENSICAEN, CNRS (France) and Charles University, Prague (Czech Republic)

O04 **Synthesis, crystal structure and chemical bonding of *RE*–Pd–Ge compounds related to the AlB_2 aristotype (*RE* = rare earth metal)**
R. Freccero - Università degli Studi di Genova (Italy)

O05 **New transition metal pyrochlore fluorides: Structure and magnetic properties of the $NaCdM_2F_7$ family**
R. Colman - Charles University, Prague (Czech Republic)

12:40 *Lunch on site*

14:00 **Plenary 2 : B. Verrecht**

Senior Program Manager Battery Recycling at Umicore

Towards sustainable battery recycling

14:45 **Plenary 3 : E. Svanidze**

Max-Planck-Institut für Chemische Physik fester Stoffe, Dresden (Germany)

Superconductivity and magnetism in complex mercury-based compounds

15:30 *Coffee break*

16:00 **Session 2A – Correlated Matter 1**

O06 **Unconventionnal superconductivity and Kondo lattice effects in $La_{1-x}Ce_xFeSiH$**
J. Sourd – Université de Bordeaux, CNRS, Bordeaux INP (France)

O07 **Electron correlations and magnetism in pure and alloyed uranium hydrides**
L. Havela - Charles University, Prague (Czech R.)

16:00 **Session 2B - Thermoelectricity**

O12 **Carrier concentration adjustment and texturation processing on thermoelectric silicide – $CrSi_2$ and Higher Manganese Silicide (HMS)**
D. Berthebaud - CNRS-Saint Gobain-NIMS, LINK Laboratory, Tsukuba (Japan)

O08 **Heavy-fermion superconductivity in Ce_2PdIn_8 tuned by crystal growth conditions**
G. Chajewski - Institute of Low Temperature and Structure Research, Polish Academy of Sciences, Wrocław (Poland)

O09 **Weak antilocalization effect and triply degenerate state in Cu-doped CaAuAs**
S. Malik - Indian Institute of Technology Kanpur (India)

O10 **Copper based quaternary chalcogenide : A composite quantum material**
B. Sahni - Indian Institute of Technology Bombay (India)

O11 **Magnetic and magnetotransport properties of $UFe_{0.5}Sb_2$**
P. Gonçalves - Instituto Superior Técnico, Universidade de Lisboa (Portugal)

O13 **Structural analysis and thermoelectric properties of $Cr_2Sn_3S_7$**
F. Guiot - Université de Rennes, CNRS (France)

O14 **Scrutinizing the phonon Kondo effect in thermoelectric clathrates**
F. Mazza - Vienna University of Technology (Austria)

O15 **Violation of translational symmetry and thermoelectric properties of materials**
Y. Grin - Max-Planck-Institut für Chemische Physik fester Stoffe, Dresden (Germany)

O16 **Relationship between the deposition conditions and the memory effect in electrochromic sputtered WO_3 films**
B. Faceira - Université de Bordeaux, CNRS, Bordeaux INP (France)

18:00 Poster session and cocktail « Wine and cheese »

Wednesday, June 15

09:00 **Plenary 4 : S. Sartori**
Department of Technology Systems at the University of Oslo (Norway)
Hydrogen storage in intermetallic alloys – where are we now and future perspective

09:45 **Session 3 - HYDROGEN**

O17 **Towards a better comprehension of the hydrogen absorption mechanism of different high entropy multicomponent alloys**
M. Moussa – Université de Bordeaux, CNRS, Bordeaux INP (France) et Université du Québec Trois-Rivières (Canada)

O18 **Fe-based high entropy alloys for hydrogen storage**
K. Marcus - Université de Grenoble Alpes, CNRS, Grenoble INP (France)

O19 **Microstructure and hydrogen storage properties of High Entropy Alloy $TiHfZrNb_{1-x}V_{1+x}$, x=0, 0.1, 0.2, 0.4, 0.6 and 1.**
J. Huot - Hydrogen Research Institute, Université du Québec à Trois-Rivières (Canada)

10:45 Coffee break

11:00 **Session 4 - BATTERIES**

O20 **Novel organic-inorganic hybrid material through cation intercalation in layered van der Waals $NiPS_3$ - a mechanistic study via operando X-ray diffraction and X-ray absorption spectroscopy**
S. Pazek - IFW Dresden (Germany)

O21 ***In-situ* XRD and PDF investigation of battery fluoride materials $MF_{3.3}•H_2O$ (M = Fe, Cr) in controlled atmosphere: accessing new phases with controlled chemistry**
G. Nénert - Malvern Panalytical B. V., Almelo (The Netherlands)

O22 **Mixed-ion conduction (Na^+/O^{2-}) in Nb-based perovskites**
G. Gouget Université de Bordeaux, CNRS and Solvay, Research and Innovation Center Paris, (France)

O23 **Compositional influence onto electrochemical performance of cubic anti-perovskites in Li-batteries**
M. Gorbunov - Leibniz Institute for Solid State and Materials Research, Dresden (Germany)

O24 **Modulating the properties of $KVPO_4F$ high voltage positive electrode through anionic substitution**
R. Wernert - Université de Bordeaux, CNRS, Bordeaux INP and Univ. Montpellier, and RS2E (France)

12:40 Lunch on site

14:00 **Plenary 6 : M. Kitano**
Materials Research Center for Element Strategy, Tokyo Institute of Technology (Japan)
Novel Solid Catalysts with Functional Anion Sites for Ammonia Synthesis

14:45 **Plenary 5 : B. Dam**
Department of Chemical Engineering, Delft University of Technology (The Netherlands)
Photochromism in Rare-Earth Oxyhydride thin films

15:30 Coffee break

16:00 **Session 5a - CORRELATED MATTER 2**

O25 **Dirac states in Pd-Bi superconductors: on the hunt for Majorana modes**
D. Kaczorowski - Institute of Low Temperature and Structure Research, Polish Academy of Sciences, Wrocław (Poland)

O26 **U_2Ni_2Sn-U_2Fe_2Sn system – where is QCP?**
O. Koloskova - Charles University, Prague (Czech Republic)

027 **$YbPt_5B_2$: a new ternary boride Kondo lattice compound with complex magnetic order**
E. Bauer - Institute of Solid State Physics, TU Wien (Austria)

O28 **Crystal field excitations in $A_2Ir_2O_7$ (A = Er and Tm) pyrochlore iridates**
M. Klicpera - Charles University, Prague (Czech Republic)

O29 **$MnPO_4$: A Composite Quantum Compound**
C. Sreeparvathy - Indian Institute of Technology - Bombay (India)

O30 *Cancelled*

16:00 **Session 5b - CATALYSIS/ENERGY**

O31 **Intermetallic electrides with exotic electronic Properties as catalysts for the synthesis of ammonia**
K. Alabd - Université de Bordeaux, CNRS, Bordeaux INP (France)

O32 **Al-Pt intermetallic compounds as OER electrocatalysts**
I. Antonyshyn - Max-Planck-Institut für Chemische Physik fester Stoffe, Dresden (Germany)

O33 **Study of magnesium "super-structures" as materials for hydrogen generation via water hydrolysis**
M. Legrée – Université de Bordeaux, CNRS, Bordeaux INP (France)

O34 *Cancelled*

O35 **Revisiting the $BaFeO_{3-\delta}$ system at the nanoscale**
D. Guttierrez-Martin - Universidad Complutense de Madrid (Spain)

O36 **New promising p-type thermoelectric sphalerite derivative phases in the $Cu_{2+x}Sn_{1-x}S_3$ system: $Cu_5Sn_2S_7$ and $Cu_{22}Sn_{10}S_{32}$**
P. Lemoine - Université de Rennes, CNRS (France)

18:00 Poster session and cocktail « Beer and Tapas »

Thursday, June 16

09:00 **Plenary 7 : J-M. Joubert**

ICMPE, CNRS, Thiais (France)

Thermodynamic modeling of transition metal-hydrogen systems

09:45 **Session 6 - THERMODYNAMICS**

O37 **Critical behavior of elastic constants in $UIrSi_3$ intermetallic**
T. Haidamak - Charles University, Prague (Czech Republic)

O38 *Cancelled*

O39 **Pressure-temperature (p,T) magnetostructural phase diagrams of slowly cooled $Co_{1-x}Cu_xMnGe$ ($0.05 \leq x \leq 0.35$)**
S. Baran - Jagiellonian University, Kraków (Poland)

10:45 Coffee break

11:00 **Session 7a - CHEMISTRY 2**

O40 **On the Compounds TZnSb, T = Ti, V, Cr**
P. Rogl - Universität Wien (Austria)

O41 **Characterization of boundaries of the chiral phase CoSi**
U. Burkhardt - Max-Planck-Institute for Chemical Physics of Solids, Dresden (Germany)

O42 **Influence of Nd/Zr substitution on the formation of $ThMn_{12}$-type phase in $(Zr,Ce)Fe_{10}Si_2$ alloys**
M. Kolodziej - Institute of Molecular Physics, Polish Academy of Sciences and NanoBioMedical Centre of Adam Mickiewicz University, Poznań (Poland)

O43 **A structural and magnetic study of the $YCo_{12-x}Fe_xB_6$ series of compounds**
B. Vallet-Simond - Université Grenoble Alpes, CNRS (France)

O44 **Polar multiatomic bonding in closest-packing-like atomic arrangement of Be_3Ru**
L. Agnarelli - Max-Planck-Institut for Chemical Physics of Solids, Dresden (Germany)

11:00 **Session 7b - THEORY**

O45 **Cation Order in the Ternary and Quaternary Phosphides $M^{II}M^{I}_2P_8$**
U. Wedig - Max Planck Institute for Solid State Research, Stuttgart (Germany)

O46 **Cluster-Based Molybdenum Chalcogenide Compounds for Thermoelectricity. Dream or Reality? A (Partial) Answer from Theory**
R. Gautier - Université de Rennes, ENSC Rennes, CNRS (France)

O47 **Anti-Th_3P_4 Antimonides for Thermoelectric Applications: Experimental & Theoretical Investigations**
V. Pelletier - Université de Rennes, ENSC Rennes, CNRS (France)

O48 **Electronic Structure of Monolayer FeSe Superconductor on Si(001) from First Principles**
K. Carva - Charles University, Prague (Czech Republic)

O49 **Utilizing defects to enhance thermoelectric properties**
T. Mori - International Center for Materials Nanoarchitectonics (WPI-MANA), NIMS and University of Tsukuba (Japan)

12:40 Lunch box

FREE AFTERNOON

18:00 Departure by bus to « Château de Seguin » (Lignan-de-Bordeaux)

20:00 GALA DINNER

Friday, June 17

09:00 **Plenary 8 : M.G. Vergniory**

Max Planck for the Chemical Physics of Solids, Dresden (Germany) and Donostia International Physics Center, Donostia-San Sebastian (Spain)

Topological Materials Database

09:45 **Session 8 - MAGNETOCALORICS**

O50 **Unusual Magnetism, including Magnetocaloric Behaviour, of Materials containing Chains of edge-linked ferromagnetic MnO_6 Octahedra**

C. Greaves - University of Birmingham (United Kingdom)

O51 **Magnetism, structure and magnetocaloric properties of $Mn_3Sn_{1-x}Zn_xC$ antiperovskite carbides**

A. Kiecana - Delft University of Technology (The Netherlands)

O52 **Nonlinear influence of excess Mn on the magnetoelastic transition in $(Mn,Cr)_2Sb$**

Q. Shen - Delft University of Technology (The Netherlands)

10:45 Coffee break

11:00 **Session 9 - MAGNETISM**

O53 **Transition-metal van der Waals trihalides: Old materials, new approaches**

M. Kratochvilova - Charles University, Prague (Czech Republic)

O54 **Magnetic properties of polymorphic A_2Ni_7-type compounds**

V. Paul-Boncour - Université Paris Est, CNRS-UPEC, Thiais (France)

O55 **Magnetism of the Co-Cr-Fe-Mn-Ni high-entropy alloy – a concentrated solid solution composed of five types of magnetic moments**

P. Kozelj - Jožef Stefan Institute and University of Ljubljana (Slovenia)

O56 **Structural and magnetic properties of High Entropy Oxides**

J. Cieslak - AGH University of Science and Technology, Cracow (Poland)

12:40 Lunch on site

14:00 **Plenary 9 : E. Canadell**

Institut de Ciència de Materials de Barcelona (ICMAB-CSIC) (Spain)

Charge Density Waves in Transition Metal Chalcogenides

14:45 **Session 10 - CORRELATED MATTER**

O57 **Magnetic reshuffling and feedback on superconductivity in UTe_2 under pressure**

M. Valiska - Univ. Grenoble Alpes, CEA, Grenoble INP (France) and Charles University, Prague (Czech Republic)

O58 **Structure, magnetism and spin dynamics of van der Waals ferromagnet VI_3**

D. Hovancik - Charles University, Prague (Czech Republic)