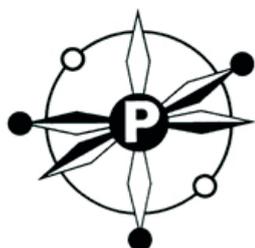


ISIPM-11 & FLM2023 in Venice

11th International Symposium on Inorganic Phosphate Materials
International Workshop on Forward-Looking Materials

November 22-24, 2023

Auditorium Danilo Mainardi,
Scientific Campus - Alfa building
Via Torino 155, Mestre (Ve)



DAY 1 - November 22, 2023

14.00-14.30 **Opening Ceremony**

14.30-16.00 **SESSION 1**

ISIPM-11 - Energy and Related Materials / Basic Science and Materials

Chair: **Makoto Sakurai**

14.30-15.10 **Toshinori Okura**

Plenary Lecture: *Na⁺-superionic conductive phosphate glass-ceramics for oxide-based all-solid-state batteries*

15.10-15.35 **Kiyoshi Itatani**

I.1.1: *Encapsulation of Eu²⁺-doped phosphate phosphor into phosphate glass by pressureless sintering and hot isostatic pressing*

15.35-16.00 **Shinnosuke Kamei**

I.1.2: *Potentiality of Synthesizing Functional Phosphate Compounds Using Sonochemistry*

16.00-16.30 *Coffee break*

16.30-17.55 **SESSION 2**

FLM2023 - Renewable and Solar Energy Materials

Chair: **Marco Bortoluzzi**

16.30-16.55 **Daniele Rosa-Gastaldo**

I.2.1: *Self-organization and Molecular Recognition: from Synthetic Receptors to Energy Applications*

16.55-17.10 **Anastasiia Taranova**

O.2.1: *Nanomaterials for applications in renewable energy*

17.10-17.25 **Letizia Liccardo**

O.2.2: *Engineering the surface on nano-Cu/TiO₂ toward efficient H₂ photo-production*

17.25-17.40 **Edlind Lushaj**

O.2.3: *Highly efficient solar-light-driven photodegradation of metronidazole by nickel hexacyanoferrate nanocubes showing enhanced catalytic performances*

17.40-17.55 **Sandro Zorzi**

O.2.4: *Insight into the Role of Ru-O-W in Boosting (Photo-) electrochemical Water Splitting*

18.00-19.00 **Poster Session** and Welcome Cocktail

POSTER SESSION

Zixuan Lu

P.1: Fabrication of apatite-fiber scaffold with optimized pore structure for bioartificial livers containing blood vessels

Aleksej Zarkov

P.2: Synthesis of Ca₅(PO₄)₃Cl Microrods via the Phase Transformation of Amorphous Calcium Phosphate in Molten Chlorides

Masataka Ohgaki

P.3: Simultaneous analysis of phosphorus content and film thickness in multilayer films and evaluation of the analyzed values

Kiyoshi Itatani

P.4: Fabrication of porous and sheet-formed bone hemostatic materials by using sugar-containing hydroxyapatite and plant-derived polymer

Isamu Sunahara

P.5: Effect of Fluoride Concentration in an Aqueous Solution on Properties of Fluorapatite (FAp) Nanoparticles Derived from Dicalcium Phosphate (DCPD)

Sou Ishimura

P.6: Stabilization of a Small Amounts of Lead Ion by Reaction of Dicalcium Phosphate (DCPD)

Shoko Koike

P.7: Development of simple synthesis method for fluorapatite using a microwave oven

Tomohiro Umeda

P.8: Coating of hydroxyapatite on polyetheretherketone fiber woven fabric for the application to spinal compression fracture treatment

Navleen Sidhu

P.9: Development of nutraceutical formulation with green technology based on supercritical CO₂ technology

Sandro Zorzi

P.10: Enhanced Catalysis of Water Splitting Reaction at the Engineered interface WSe₂-RuSe₂

Andrius Pakalniškis

P.11: Sc Doping Effects on the Magnetic and Structural Properties of LuFeO₃

DAY 2 - November 23, 2023

9.00-10.45 **SESSION 3**

ISIPM-11 -Energy and Related Materials / Basic Science and Materials

Chair: **Toshinori Okura**

9.00-9.40 **Brahim Elouadi**

Plenary Lecture: To be defined

9.40-10.05 **Hiroaki Onoda**

I.3.1: Mechanochemical Effects on the Preparation of Manganese Phosphate Violet Pigments

10.05-10.30 **Makoto Sakurai**

I.3.2: Syntheses and Properties of Imido-phosphate Derivatives and Phosphate Glasses

10.30-10.45 **Hirokazu Munakata**

O.3.1: Phosphoric acid/ionic liquid mixed electrolytes for non-humidified intermediate temperature fuel cells

10.45-11.15 Coffee break

11.15-12.35 **SESSION 4**

FLM2023 - Bio- and Nanocarbon-Based Materials

Chair: **Leonardo Puppulin**

11.15-11.40 **Alan Porporati**

I.4.1: ZPTA ceramic bearing surfaces as a preferred choice in joint arthroplasty?

11.40-12.05 **Naoyuki Matsumoto**

I.4.2: Enhancing Composite Properties through Lock-in Thermography: Unraveling Structure-Property Relationships in Carbon Nanotube-Polymer Composites

12.05-12.20 **Jacopo Nicoletti**

O.4.1: Methodology for the accurate extraction of d_{33} piezoelectric coefficient in biocompatible chitosan films

12.20-12.35 **Jacopo Segato**

O.4.2: Transforming seafood byproducts into high-value nanostructured biofilms for packaging applications

12.35-14.00 Lunch break

14.00-15.35 **SESSION 5**

ISIPM-11 - Innovative Processing of Phosphates / Materials for SDGs

Chair: **Takeshi Toyama**

14.00-14.25 **Kenjiro Fujimoto**

I.5.1: Phase mapping of pseudo-ternary LiFePO_4 - LiMnPO_4 - LiCoPO_4 reaction diagrams and electrode properties in olivine-type $\text{LiFe}_{1-x-y}\text{MnxCoyPO}_4$

14.25-14.50 **Mamoru Aizawa**

I.5.2: Construction of Estimation Model of Bone Formation for Porous Hydroxyapatite Ceramics by Machine Learning

14.50-15.05 **Shohei Kajiwara**

O.5.1: Photocatalytic properties of phase-controlled titanium dioxide nanoparticles: A hybridization with calcium-phosphate materials

15.05-15.20 **Haruhiko Kuroe**

O.5.2: Preparation of fibrous octacalcium phosphate using homogeneous precipitation method

15.20-15.35 **Shota Shiraki**

O.5.3: Structure evaluation of titanium-containing phosphate glasses prepared by liquid phase method

15.35-16.00 Coffee break

16.00-17.30 **SESSION 6**

FLM2023 - Optical and Luminescent Materials

Chair: **Michele Back**

16.00-16.25 **Mauro Fasoli**

I.6.1: Luminescent materials for ionizing radiation detection

16.25-16.50 **Riccardo Marin**

I.6.2: Pushing the Limits of Luminescence Nanothermometry

16.50-17.15 **Francesco Enrichi**

I.6.3: Broadband UV excitation in Ag-sensitized RE^{3+} doped sol-gel glasses: a route to efficient and sustainable lighting

17.15-17.30 **Michele Crozzolin**

O.6.1: Size Effect in γ -Phase Stabilization of Ga_2O_3 : Cr^{3+} Nanocrystals Grown into SBA-15 Pores

19.30 Conference dinner

DAY 3 - November 24, 2023

9.15-10.35 **SESSION 7**

ISIPM-11 - Apatite or Phosphates-Related
Biomaterials / Basic Science and Materials

Chair: **Kiyoshi Itatani**

9.15-9.40 **Aleksej Zarkov**

I.7.1: *Magnesium and Transition Metal*

Whitlockite: Synthesis and Characterization

9.40-10.05 **Sungho Lee**

I.7.2: *Design of Novel Bioactive Phosphate*

Glasses for Biomedical Applications by

Enhancing Cell Activity with Inorganic Ions

10.05-10.20 **Erika Onuma**

I.7.3: *Proteomics of proteins adsorbed on*

hydroxyapatite ceramics with preferred

orientation to a-plane

10.20-10.35 **Andrea Morandini**

O.7.1: *New chlorinating agents-free synthetic*

route for preparation of P-N and P-O

dibenzooxaphosphacycles derivatives

10.35-11.00 *Coffee break*

11.00-12.05 **SESSION 8**

ISIPM-11 - Materials for SDGs

Chair: **Hiroaki Onoda**

11.00-11.25 **Masamoto Tafu**

I.8.1: *Production of zero-carbon lime from*

gypsum waste for sustainability of phosphate

industry

11.25-11.50 **Takeshi Toyama**

I.8.2: *Recovery of phosphorous from sewage*

sludge ash through component conditioning

via CO₂ blowing method

11.50-12.05 **Giulia Bragaglia**

O.8.1: *Phosphates adsorption process: use of*

Electric Arc Furnace slags as P-adsorbents

from wastewater

12.05-12.30 **Closing Remarks**