ICACS & SHIM 2022 – Virtual poster session

Date: Wednesday, June 22
Time: 16:00 – 19:00

Breakout room: BR1 (P1v,P2v,P3v,P4v)

1. **P1v** Observation of ion latent tracks in semicrystalline polymers by scanning electron microscopy
Pavel Apel, Irina Blonskaya, Olga Kristavchuk, Sergey Mityukhin, Alexandr Nechaev, Olga Polezhaeva, Oleg Orelovich

2. **P2v** The mechanism of formation of ion-selective channels in PET foils subjected to ion irradiation, photo-oxidation and aqueous extraction
Pavel Apel, Irina Blonskaya, Oleg Ivanov, Olga Kristavchuk, Alexandr Nechaev, Katarzyna Olejniczak, Olga Polezhaeva, Oleg Orelovich, Serguei Dmitriev

3. **P3v** Influence of low energy (80 keV) ion beam modifications in structural optical and morphological properties of tungsten oxide thin films deposited by RF sputtering
Deepika Deepika, Deepika Gupta, Vishnu Chauhan, Rashi Gupta, Aman Mahajan, Rajesh Kumar

4. **P4v** Effect of high dose gamma radiation on physico-chemical and photoluminescence, surface morphological properties of WO3 thin films
Deepika Deepika, Deepika Gupta, Vishnu Chauhan, Aman Mahajan, Rajesh Kumar

Breakout room: BR2 (P5v,P11v,P12v,P13v)

1. **P5v** Surface Modifications by Fast Heavy Ions and Slow Highly Charged Ions: Similarities and Differences
Ayman Sherif El-Said

2. **P11v** The Variation of Pinning Efficiency in Swift Heavy Ions Irradiated YBCO Superconducting Films
Li Liu, Jie Liu, PengFei Zhai, ShengXia Zhang, Jian Zeng, PeiPei Hu, LiJun Xu, ZongZhen Li

3. **P12v** Heavy ion irradiation effects on microstructural properties of amorphous HfO2 thin films
Zongzhen Li, Jie Liu, Pengfei Zhai, Li Liu, Lijun Xu, Shengxia Zhang, Peipei Hu, Jian Zeng

4. **P13v** Type and size of the nanostructure formed on a metal surface by an impact of highly charged ions
N.N. Nedeljković, M.D. Majkić, M.A. Mirković, I. Stabrawa, D. Banaś

Breakout room: BR3 (P6v,P8v,P10v,P27v)

1. **P6v** Soft potential and van der Waals effects in He-KCl(001) grazing-incidence fast atom diffraction.
   Gisela Anahí Bocan, Hanadi Breiss, Samir Szilasi, Anouchah Momeni, Elena Magdalena Staicu Casagrande, Esteban Alejandro Sánchez, María Silvia Gravielle, Hocine Khemliche

2. **P8v** Density enhancement of ion microbeams with miniature quadrupole magnets for tapered glass capillary optics
   Kotoko Inayoshi, Tokihiro Ikeda, Keisuke Ono, Wei-Guo Jin

3. **P10v** Gold nanowire network fabricated by ion-track nanotechnology and its electrochemical properties
   Mohan Li, Nils Ulrich, Michael Florian Wagner, Ina Schubert, Christina Trautmann, Maria Eugenia Toimil-Molares

4. **P27v** Swift heavy ion irradiation of bismuth nanowires pressurized in diamond anvil cells
   Christopher Schröck, Ioannis Tzifas, Kay-Obbe Voss, Lkhamsuren Bayarjargal, Wilfried Sigle, Ina Schubert, Maria Eugenia Toimil-Molares, Björn Winkler, Christina Trautmann

Breakout room: BR4 (P7v,P15v,P33v,P36v)

1. **P7v** Local structure and hardness change in the amorphization process of ZrCuAl alloys by heavy ion irradiation
   Fuminobu Hori, Yuto Morikuni, Hiroya Obayashi, Akihiro Iwase, Toshiyuki Matsui, Yasuyuki Kaneno, Takeshi Wada, Hidemi Kato, Norito Ishikawa

2. **P15v** Radiation effects on thymine at low temperature
   Christian Mejia, Gabriel Vignoli Muniz, Markus Bender, Daniel Severin, Christina Trautmann, Aditya Narain Agnihotri, Basile Augé, Alicja Domaracka, Boduch Philippe, Hermann Rothard

3. **P33v** Development of analytical methods in the sputtering theory of solids
   Luigi Forlano, Alexander Tolmachev

4. **P36v** Molecular Dynamics Simulations of Silicon Vacancy and Nitrogen Vacancy Color Centers in Diamond
   WEI ZHAO, ZONGWEI XU, FEI REN, JINTONG WU, TIANZE SUN

Breakout room: BR5 (P9v,P14v,P31v)

1. **P9v** Analysis of ion-track overlapping effects using Poisson distribution function and Monte Carlo simulation
   Akihiro Iwase, Shigeru Nishio, Norito Ishikawa, Fuminobu Hori

2. **P14v** TREKIS-4: concurrent MC-MD modelling of ion track formation
   Nikita Medvedev, Fedor Akhmetov, Ruslan A. Rymzhanov, Roman Voronkov, Alexander E. Volkov

3. **P40p** Chemical damage and surface roughness induced by 1 MeV/u C and 9 MeV/u Ne ions in thin polymer films of different thickness
   Raquel Thomaz

4. **P31v** A graphical user interface for SDTrimSP
   Paul S. Szabo, David Weichselbaum, Herbert Biber, Christian Cupak, Andreas Mutzke, Richard A. Wilhelm, Friedrich Aumayr

Breakout room: BR6 (P16v,P17v,P21v,P22v)

1. **P16v** Radiation damage, conductivity type conversion and p-n nanojunction formation induced by low-energy Ar+ ion collisions with the n-GaAs surface
   Valery Mikoushkin

2. **P17v** room:-temperature radiation-induced diffusion in the GaAs-oxide irradiated by low-energy Ar+ ion beam
   Valery Mikoushkin, Elena Makarevskaya, Anna Solonitsyna

3. **P21v** Stopping power in lanthanides, from Ce to Lu
   Jesica Paola Peralta, Alejandra M. P. Mendez, Claudia C. Montanari

4. **P22v** The Levine-Mermin dielectric function to describe stopping of inner-shells.
   Jesica Paola Peralta, Marcelo Fiori, Claudia C. Montanari, Alejandra M. P. Mendez

Breakout room: BR7 (P18v,P32v,P35v,P40v)

1. **P18v** Theory and simulations for plasma created by swift heavy ions
   Kengo Moribayashi

2. **P32v** Projectile dependence in dissociation on biomolecules by swift heavy ion irradiation
   Tomoya Tezuka, Mizuki Hongo, Takuya Majima, Manabu Saito, Hidetsugu Tsuchida

3. **P35v** Surface treatment procedures to mitigate desorption processes induced by swift heavy ions
   Verena Velthaus, Trautmann Christina, Bender Markus

4. **P40v** Trion Emission in WSe2 Tuned by Swift Heavy Ion Irradiation
   Shengxia Zhang, Lijun Xu, Peipei Hu, Khan Maaz, Jian Zeng, Pengfei Zhai, Zongzhen Li, Li Liu, Jie Liu

Breakout room: BR8 (P20v,P34v,P37v)

1. **P20v** Nonlinear effect on Au sputtering by C60- and C70-ion bombardment
   Kazumasa NARUMI, Keisuke YAMADA, Yoshimi HIRANO, Atsuya CHIBA, Yosuke YURI, Yuichi SAITOH

2. **P34v** Effect of molecular axis orientation of 3.6 MeV Si2+ on secondary electron emission from carbon foils
   Naruki Uno, Takuya Majima, Manabu Saito, Hidetsugu Tsuchida

3. **P37v** A novel method for preparing highly sensitive graphene room: temperature gas detectors
   Jian Zeng, Pengcheng Ma, Shengxia Zhang, Lijun Xu, Peipei Hu, Jie Liu

Breakout room: BR9 (P26v,P28v,P29v,P30v)

1. **P26v** Physics Education and outreach using ion and electron beams
   Pierfrancesco Riccardi

2. **P28v** Mechanisms of ion irradiated MWNT antibacterial activity: experiment and calculation
   Anton V. Stepanov, Andrew A. Shemukhin, Anton V. Nazarov, Anastasia I. Dimitrieva, Alexander P. Popov, Dmitriy S. Yumanov, Alyona V. Kovalenko, Ekaterina Vorobyeva

3. **P29v** Si doping of beta-Ga2O3 defect calculation
   Anton Stepanov, E. Okulich, D. Tetelbaum

4. **P30v** Radiation tolerance of GaN and Ga2O3: role of the defect generation rate
Andrei Titov, Konstantin Karabeshkin, Andrei Struchkov, Alexander Azarov, Platon Karaseov

Breakout room: BR10 (P38v,P39v,P51v,P52v)

1. **P38v** Phase Stability of Pre-irradiated CeO2 with Swift Heavy Ions under High Pressure up to 45 GPa
Jianxiong Lan, Pengfei Zhai, Shuai Nan, Lijun Xu, Jingjing Niu, Cheng Tian, Zongzhen Li, Weixing Li, Jie Liu, Rodney Ewing

2. **P39v** Swift Heavy Ion Tracks in CeO2
Jianxiong Lan, Pengfei Zhai, Shuai Nan, Lijun Xu, Jingjing Niu, Cheng Tian, Zongzhen Li, Weixing Li, Jie Liu, Rodney Ewing

3. **P51v** Photoionization of a Quantum Grating formed by a Single Atom
S.F. Zhang, B. Najjari, Xinwen Ma

4. **P52v** Selective Bond Cleavage of ArCO by Electron Impact
Shuncheng Yan, Dong Liu, Songbin Zhang Xinwen Ma

Breakout room: BR11 (P23v – P25v)

1. **P23v** Application of multiple scattering approximation to the calculation ion-atom and ion-molecular collision
Serg Pozdneev

2. **P24v** Few-body approximation in chemical physics
Serg Pozdneev

3. **P25v** Dissociative electron attachment
Serg Pozdneev

Breakout room: BR12 (P41v – P50v)

1. **P41v** Dependence of the electronic stopping on the method of measurement
Pavel Babenko, Aleksandr Zinoviev

2. **P42v** Fast electron contribution to electronic stopping
Pavel Babenko, Aleksandr Zinoviev

3. **P43v** On the problem of Be and W impurities in ITER plasma
Aleksandr Zinoviev, Pavel Babenko, Maxim Mironov, Andrey Shergin

4. **P44v** Reflected particles energy spectra during bombarding a tungsten surface with hydrogen atoms
Vladislav Mikhailov, Pavel Babenko, Daria Tensin, Aleksandr Zinoviev

5. **P45v** Hydrogen atoms reflection coefficient from the beryllium surface saturated with hydrogen
Vladislav Mikhailov, Pavel Babenko, Daria Tensin, Aleksandr Zinoviev

6. **P46v** Channeling of hydrogen isotopes in gold and tungsten
Daria Tensin, Pavel Babenko, Andrey Shergin, Aleksandr Zinoviev

7. P47v Modeling the interaction of hydrogen and helium isotopes with the first wall of a tokamak reactor
Daria Tensin, Pavel Babenko, Andrey Shergin, Aleksandr Zinoviev

8. **P48v** Molecular dynamics simulations of tungsten and beryllium sputtering near threshold
Daria Tensin, Aleksandr Zinoviev, Pavel Babenko, Andrey Shergin

9. **P49v** Nuclear stopping powers for DFT potentials
Aleksandr Zinoviev, Pavel Babenko, Kai Nordlund

10. **P50v** The potential determination for the H-Au system from experimental data
Pavel Babenko, Aleksandr Zinoviev, Vladislav Mikhailov, Daria Tensin, Andrey Shergin