

**Программа конференции IWSN 2022**

**Катализ (20 октября 2022, четверг, 10.00-12.00)**

**Главный корпус ЮФУ, зал Совета ЮФУ**

**(ведут Бугаев А, Скорынина А)**

<https://us02web.zoom.us/j/87303972287?pwd=YXp2c0ZEbUhFc0p3R21PVzFMNFFqdz09>

Lorenzo Mino	10:00	Monitoring photocatalytic reactions on shape engineered TiO <sub>2</sub> nanomaterials by in situ spectroscopies
E. Vottero	10:35	Ductility of supported Pt nanoparticles under hydrogenation conditions: complementary FT-IR, INS and DFT results
Sergio Rojas-Buzo	10:55	Unraveling the Pt-Ce interaction in a single-Pt site catalyst supported on a Ce-MOF: a multi-technique study
Elizaveta Kozyr	11:10	Titania supported noble metal nanoparticles for photocatalytic production of H <sub>2</sub> from water
Peter Njoroge	11:25	In situ evolution of Pt species in water splitting photocatalyst
Олег Усольцев	11:35	Infrared spectroscopy for structure investigation of palladium nanoparticles
Андрей Терещенко	11:50	Formation of intermediates on advanced Cu-Ga/SiO <sub>2</sub> catalysts during CO <sub>2</sub> -to-methanol hydrogenation monitored by FTIR spectroscopy.

**Теория, включая ИИ (20 октября 2022, четверг, 13.00-14.40)**

**Главный корпус ЮФУ, зал Совета ЮФУ**

**(ведет Гуда АА)**

<https://us02web.zoom.us/j/85738125167?pwd=bkhkMXVLWjJ0UXpBaU5RcldwM1hoZz09>

Александр Гуда	13.00	Specifics of the microfluidic synthesis of metal nanoparticles.
Никита Тер-Оганесян	13.25	Development of a ReaxFF potential for Au-Pd
Данил Федорин	13.40	Physical environments digital twins development based on machine learning approach
Алина Скорынина	13.50	Calculation of IR Modes for Describing Zeolite Frameworks
Данил Шевцов	14.05	Computer Vision Models for Materials Microstructure Analysis
Виктор Ролдугин	14.15	Atomic and electronic structure modeling of indium adatoms on the reconstructed GaAs(001) and AlAs(001) surfaces
Екатерина Кичигина	14.25	Detection of the homogeneity of materials by artificial intelligence methods using acoustic emission data

**Диагностика (21 октября 2022, пятница, 10.00-12.00) (ведут Дмитриев В, Панкин И)**

**Точка кипения ЮФУ, Зорге 21**

<https://us02web.zoom.us/j/82085951659?pwd=eVE4Vm9hRno5MTdMS2hVOUc2UWt0dz09>

Александр Солдатов	10.00	Operando studies of novel functional nanomaterials for use in catalytic processes and technologies for energy storage and conversion:
Сергей Турищев	10.25	Atomic and electronic structure specificity studies of tin oxide nanolayers
Евгений Беликов	10.50	Hybrid nanostructures based on E.coli protein with iron oxide inorganic core
Юлия Какулия	11.00	Copper nanocrystals immobilization in porous SiO <sub>2</sub> matrix
София Титова	11.10	XANES studies of porous silicon nanoparticles transformation at integration with biohybrid structure
Анна Пневская	11.20	In situ laboratory XAS study of ethylene adsorption on Cu-sites of HKUST-1
Ольга Дикая	11.30	The ion-beam sputtering deposition for experimental research by a synchrotron and neutron methods

**Микрофлюидика, синтез (21 октября 2022, пятница 13.00-14.30) (ведет Муханова Е)**

**Точка кипения ЮФУ, Зорге 21**

<https://us02web.zoom.us/j/85439786771?pwd=UTFrZ1plcFI2MG1IWFFYcmNNOWxKQT09>

Елизавета Муханова	13.00	Microfluidic synthesis of complex inorganic substances: X-ray phosphor CaWO <sub>4</sub>
Сергей Чапек	13.20	3DP microfluidic device
Михаил Солдатов	13.35	Microfluidic devices for synthesis and <i>in situ</i> characterization of biomedical nanomaterials
Раджпут Придаяршани	13.50	Insights into microfluidic based adsorption for industrial wastewater remediation
Арина Добровольская	14.05	In situ growth of palladium nanoparticles inside the microfluidic chip monitored by X-ray absorption spectroscopy
Алексей Муравлев	14.20	Specifics of the microfluidic synthesis of metal nanoparticles.
Полина Рудь	14.35	In situ DLS monitoring of microfluidic synthesis of Au nanoparticles
Иван Горбань	14.40	Novel proton exchange membranes modified by metal-organic framework HKUST-1 for green energy technologies