

EXTREME

Sofia University
University of Barcelona, Faculty of Chemistry
ETH Zurich, Department of Materials

WORKSHOP

“COLLOID AND INTERFACE RESEARCH & INNOVATIONS”

11-14 JULY 2022



ASTOR GARDEN HOTEL

ST. ST. CONSTANTINE AND HELENA, BULGARIA

“Extreme” project has received funding from the Ministry of Education and Science, NATIONAL PROGRAM "EUROPEAN SCIENTIFIC NETWORKS"

Program

Monday, 11th July

17:20	Opening – Georgi Vayssilov
17:30	Lucio Isa
PL1	“Capillarity-assisted particle assembly as a versatile tool across different disciplines”
18:20	Slavka Tcholakova
OP1	“Natural saponins as active substances”
18:40	Esther Santamaría
OP2	“Overview of the research group: colloidal engineering systems”
19:00	Fatmegul Mustan-Borisova
OP3	“Escin as nonionic and anionic surfactant: effect of electrolytes on the solution properties”
19:20	Liliya Vinarova
OP4	“Effect of lipid molecular structure on aggregate formation and drug solubilization in simulated intestinal fluids”
19:40	Dinner

Tuesday, 12th July

09:00	Elena Vassileva
OP5	“Novel hybrid materials obtained via polymer-guided calcium phosphates deposition”
09:20	Aleksey Vasilev
OP6	“Chlorine Substituted Fluorogenic Nucleic acids probe based on Thiazole Orange Scaffold with Propionamide Functionality”
09:40	Meglana Kandinska
OP7	“Novel tetrahydroisoquinoline-, quinoline- and benzo[d]thiazole derivatives with anti-coronaviral activity”
10:00	Rosena Krushovalieva
SO1	“Liposomes – an ophthalmic drug delivery system”
10:10	Monika Mutovska
SO2	“Dioxine, benzofurane and halcogene anulated 1,8-naphthalimides as a DNA intercalators”
10:20	Raimundo Gargallo
PL2	“Fundamentals and some applications of multivariate analysis”
11:10	Lunch break
14:30	Discussions
17:00	Coffee break

17:30	Hristiyan Aleksandrov
OP8	“Modeling of NO and NO ₂ adsorption to ceria-based systems – a DFT study”
17:50	Petko Petkov
OP9	“DFT modeling of the electronic properties of phthalocyanine based metal-organic frameworks”
18:10	Iskra Koleva
OP10	“Interaction of nitrogen with transition metal nanoparticles – a DFT study”
18:30	Yulian Zagranyski
OP11	“New hydrogen-bonded 1,8-naphthalimides and phthalimides based chromophores and fluorophores”
18:50	Ana Koleva
OP12	“Ultrasound assisted homodimerization reactions of coumarins – evaluation of the substituent in the benzene moiety on the reaction rate”
19:10	Kristina Simeonova
SO3	“DFT Modelling of the Isolated Structure of Isomeric Covalent Organic Frameworks with Photoelectrochemical Properties”
19:20	<i>Dinner</i>

Wednesday, 13th July

09:00	Krasimir Danov
OP13	“Molecular thermodynamics of micelles from zwitterionic surfactants”
09:20	Zahari Vinarov
OP14	“Colloids and interfaces: the missing link in understanding how advanced oral formulations improve drug absorption”
09:40	Vladimir Petkov
OP15	“Dissolution kinetics of glibenclamide amorphous solid dispersions in biorelevant media”
10:00	Andreu A. de Donato
OP16	“Understanding the structures of colloidal silica subunits: from IR to spectra”
10:20	Vasil Georgiev
SO4	“Foamability of Polyvinyl alcohol solutions and efficiency of Antifoam agents”
10:30	Kristina Rusanova
SO5	“Role of surface rheological properties for dynamics of film thinning”
10:40	Xavier Barril
PL3	“A Bottom-Up Approach to Screening Massive Virtual Collections”
11:30	<i>Lunch Break</i>
14:30	<i>Discussions</i>
17:00	<i>Coffee break</i>

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17:30 OP17	Stanimir Stoyanov “Synthesis, spectral and electrochemical properties of dioxin-annulated 1,8-naphthalimides for OLEDs“
17:50 OP18	Stanislav Stanimirov “Transient absorption, femtosecond dynamics, vibrational coherence and molecular modelling of the photoisomerization of N-salicylidene-o-aminophenol in solution”
18:10 OP19	Valentina Lyubomirova “Impact assessment of discharge of treated wastewater effluent on the chemical parameters of the water in the upper part of Iskar River”
18:30 OP20	Petar Petrov “Block copolymer nanocarriers for advanced drug delivery”
18:50 OP21	Konstans Emilova Ruseva “Bi-layered polyzwitterionic hydrogels with reversible shape change upon external stimuli change”
19:10 SO6	Iva Belovezhdova “Evaluation of the effectiveness of metal removal in the landfill leachate in Kubratovo Wastewater Treatment Plant”
19:20	<i>Dinner</i>

Thursday, 14th July

09:00 OP22	Martin Tsvetkov “Facile preparation of CeO ₂ functionalized carbon microspheres for sonocatalytic degradation of tetracycline hydrochloride”
09:20 OP23	Denitsa Elenkova “Lanthanoid metal-organic frameworks based on terephthalic acid as luminescent sensors for water pollutants”
09:40 OP24	Rumen Lyapchev “Applying Suzuki and Sonogashira cross-coupling reactions for the functionalization of coumarin derivatives”
10:00 SO7	Totka Todorova “Fly Ash Zeolite X catalysts for volatile organic compounds decomposition”
10:10 SO8	Stefaniya Gaydarova “Fluorogenic solid lipid nano-biomolecular probes- synthesis and characterization”
10:20	<i>Closing the conference</i>