

Science and Report Day 2023

Institute of Chemistry

Hevesy György PhD School of Chemistry

May 11-12, 2023



ELTE

FACULTY OF
SCIENCE

Thursday, May 11

- 8:30-9:00 Opening & Awards Ceremony (Eötvös Hall)
- 9:00-9:25 Lecture of the winner of the Excellent Scientist 2023 Award
- 9:30-10:30 Report Day presentations of the doctoral candidates
- 10:30-10:50 Coffee break
- 10:50-12:20 Report Day presentations of the doctoral candidates
- 12:20-14:30 Poster session & pizza lunch
- 14:30-15:30 Invited Lectures: winner of the Hevesy György Research Award & Eszter Najbauer (Eötvös Hall)
- 15:30-15:50 Coffee break
- 15:50-17:00 Report Day presentations of the doctoral candidates

Friday, May 12

- 8:30-9:25 Invited Lectures: Imre Salma & Albert Bartók-Pártay (Eötvös Hall)
- 9:30-10:30 Report Day presentations of the doctoral candidates
- 10:30-10:50 Coffee break
- 10:50-12:30 Report Day presentations of the doctoral candidates
- 12:45-13:45 Doctoral Candidates' Forum
- 14:00-15:30 Round-table discussion:
What makes industry–university collaborations succeed?

Detailed program

Science and Report Day 2023																		
Institute of Chemistry Hevesy György PhD School of Chemistry																		
Thursday, 11 May																		
8:30-9:00	Awards	Opening														Eötvös hall, 0.83		
		Teaching award																
		Publication award																
		TDK																
		Excellent scientist																
9:00-9:25	Presentation	Excellent scientist																
	AMECE I			AMECE II			SOBC I			SOBC II				TPSC				
	Imre Salma			István Szalai			Antal Csámpai			Gábor Mező				Péter Surján				
	Imre Varga			Viktor Mihucz			Zoltán Novák			Zoltán Bánóczy				György Tarczay				
	István Bányaí			László Drahos			Péter Kele			Tibor Soós				Zoltán Rolik				
9:30-9:45	Csaba Tóbi (6)	Than hall, 065		9:30-9:45	Adrienn Molnár (6)	Bruckner hall, 063		9:30-9:45	András Szobota (6)	Marx hall, 0.87		9:30-9:45	Chiara Bellini (6)	Jedlik hall, 0.89	9:30-9:45	Ádám András Kelen (6)	Jánosy hall, 0.79	
9:45-10:00	Dániel Fülöp (6)			9:45-10:00	Gabriel Stefan Horkovics-Kovats (6)			9:45-10:00	Karima Tarchoun (6)			9:45-10:00	Fruzsina Bencs (6)			9:45-10:00		Ahmed Shaalan Al Shahrou (6)
10:00-10:15	Dániel Kovács (6)			10:00-10:15	Péter Lénárt (6)			10:00-10:15	Csaba Attila Bató (6)			10:00-10:15	Kristóf Ferentzi (6)			10:00-10:15		Károly Kubicskó (6)
10:15-10:30	Fanni Bugyi (6)			10:15-10:30	Péter Rózsa (6)			10:15-10:30	Jacopo Gomena (6)			10:15-10:30	Lucia Kotásková (6)					
10:30-10:50																		
Coffee break																		
10:50-11:05	Mónika Bak (6)	Than hall, 065		10:50-11:05	Tímea Bebesi (6)	Bruckner hall, 063		10:50-11:05	Péter Angyal (6)- Confidential	Marx hall, 0.87		10:50-11:05	Tamás Czuczi (6)	Jedlik hall, 0.89				
11:05-11:20	Noémi Anna Buczkó (6)			11:05-11:25	Máté Vörösmarty (4)			11:05-11:20	Bence Sóvári (6)- Confidential			11:05-11:20	Bálint Nagy (2)					
11:20-11:35	Ábel Zsubrits (2)			11:25-11:45	Manhal Al-Mashhadani (4)			11:20-11:35	Dániel Bálint (6)- Confidential			11:20-11:35	Bence András Sármezey (2)					
11:35-11:50	István Sándor Czirok (2)			11:45-12:05	Sonallya Tasvilla (4)			11:35-11:50	Imre Kovács (6)			11:35-11:50	Etelka Ferenczi (2)					
11:50-12:05	János Kóth (2)			12:05-12:25	Olivér Pavela (4)			11:50-12:05	Bettina Basa (2)			11:50-12:05	Mona Alnaeem Alhassan Ibrahim (2)					
12:05-12:20	Márius Nataniel Horváth (2)							12:05-12:20	Gréta Galgóczy (2)									
Lunch break and Posters																		
14:30-15:30	Presentation	Dávid Ferenc														Eötvös hall, 0.83		
		Eszter Najbauer																
Coffee break																		
15:50-16:10	Kende Béres (4)	Than hall, 065		15:50-16:05	Kinga Ilyés (2)	Bruckner hall, 063		15:50-16:05	István Levente Bódy (2)	Marx hall, 0.87								
16:10-16:30	Kinga Nagy (4)			16:05-16:20	Nándor Papp (2)			16:05-16:20	Mátyás Pál Tímári (2)									
				16:20-16:35	Péter Soma Szakály (2)			16:20-16:40	Zita Makó (4)									

*We thank the Hungarian Combustion Society (Magyar Égéstudományi Bizottság) for making their poster boards available for this event.

Friday, 12 May									
8:30-9:25	Presentation	Széchenyi awardee - Imre Salma							Eötvös hall, 0.83
		Albert Bartók-Pártay							
	SOBC I			SOBC II			TPSC		
	Antal Csámpai	Marx hall, 0.87		Gábor Mező	Jedlik hall, 0.89		Péter Surján	Jánossy hall, 0.79	
	Zoltán Novák			Zoltán Bánóczy			György Tarczay		
	Péter Kele			Tibor Soós			Zoltán Rolik		
9:30-9:50	Aitkazina Aiman (4)		9:30-9:50	Attila Csomos (4)		9:30-9:50	Jihad El Guettioui (4)		
9:50-10:10	Ali Alhaidari Abdulkareem Raheem (4)	9:50-10:10	Dávid Papp (4)	9:50-10:10	László Horváth (4)				
10:10-10:30	András Miklós Kotschy (4)	10:10-10:30	Dóra Kern (4)	10:10-10:30	Shitebel Amosi Makoye (4)				
10:30-10:50		Coffee break							
10:50-11:10	Bálint Kőnig (4)		10:50-11:10	Ede Bence Balterer (4)		10:50-11:05	Leonora lotcheva (2)		
11:10-11:30	Bálint Zsigulics (4)		11:10-11:30	Márton András Gadancz (4)		11:05-11:20	Ádám Barnabás Szirmai (2)		
11:30-11:50	Farkas László Domahidy (4)		11:30-11:50	Márton Ferenc Szlávik (4)		11:20-11:35	Ákos Veres-Ravai (2)		
11:50-12:10	Saif Qahtan Salman (4)		11:50-12:10	Orsolya Ember (4)		11:35-11:50	András György Szanthoffer (2)		
12:10-12:30	Tímea Katalin Baló (4)		12:10-12:30	Rihárd Sisa (4)		11:50-12:05	Barbara Keresztes (2)		
						12:05-12:20	Bónis Barcza (2)		
12:45-13:45		Doctoral candidates' forum							Eötvös hall, 0.83
14:00-15:30		Roundtable discussion							Dean's meeting room

**The numbers, at the end of the names of the Doctoral candidates, indicate their current semester of their doctoral studies.

Contribution titles

Ahmed Shaalan Al Shahrour	Characterization of Exciton and Charge-Transfer Excited States in Conformationally Restricted Arylene Cages by Spin-Component scaled ADC(2) methods
Aiman Aitkazina	Synthesis, characterization and application possibilities of novel sulfur-containing polymer conetworks
Ali Alhaidari Abdulkareem Raheem	Mobility of silyl groups in silylated lactam derivatives
Angyal Péter	Syntheses of kratom metabolites and lepidopteran pheromones
Bálint Dániel	Development of chiral Michael-acceptors for the solution of biological and synthetic problems
Baló Tímea Katalin	Application of photo-crosslinkers for mapping KBTBD4-ligand interaction
Balterer Ede Bence	Study of reaction kinetics by NMR spectroscopy
Bak Mónika	Structuring liquids utilizing the interfacial association between oppositely charged compounds dispersed in different immiscible fluid phases
Baranyi Bence	Quantum molecular dynamics simulations for electron and proton transfer reactions in condensed phase
Barcza Bónis	Development of high level potential for non-covalentinteracting excited chromophores
Batrók-Pártay Albert	Computational materials science assisted by machine learning: new capabilities and remaining challenges
Basa Bettina	Synthesis and characterization of nucleolin receptor recognizing F3 peptide fragment conjugates
Bató Csaba	Enhancing the cellular uptake of peptide conjugates with different modifications
Bebesi Tímea	Infrared (IR) spectroscopic study of extracellular vesicles
Bellini Chiara	Synthesis and biological evaluation of nano encapsulated peptide-based vaccine candidates against tuberculosis
Bencs Fruzsina	Cross-evolution of aggregation-prone regions (APRs): tranzition pathways between amyloids

Béres Kende Attila	Synthesis and properties of transition metal complexes containing redox-active ligands and anion
Bodor Andrea	Új NMR spektroszkópai megközelítések fehérjék jellemzésére
Bódy István Levente	Investigation of structural biological aspects of amyloidogenic proteins
Buczko Noémi Anna	Characterization of WEEE by nuclear analytical and imaging techniques
Bugyi Fanni	Development of sample preparation, measurement, and data evaluation methods for the study of protein phosphorylation and applications on biological samples
Csomos Attila	Design, Synthesis and Development of fluorescent chemosensors for physiological applications
Czirok István Sándor	Thermal decomposition processes in biomass materials
Czucz Tamás	Fragment based design and synthesis of novel antiproliferative multitarget molecular hybrids
Domahidy Farkas	Development of multifunctional fluorescent DNA sensors for hematological purposes, flow cytometry, and the detection of amplification in PCR and LAMP assays
El Guettioui Jihad	Study of Functional Molecular Systems with Novel Tender and Hard X-Ray Spectroscopies
Ember Orsolya	Design, synthesis and application of enzyme-activated photosensitive protecting groups
Ferenc Dávid	Recent developments and future challenges for theoretical precision spectroscopy
Ferenczi Etelka	Synthesis of novel antiproliferative hybrid molecules containing alkaloid subunit
Ferentzi Kristóf	Synthesis and structural analysis of peptides, peptide derivatives and proteins
Fülöp Dániel	Tailoring the composition and surface functionality of carbon quantum dots
Gadanecz Márton András	Investigation of the structure and interactions of the oncogenic protein KRAS by NMR spectroscopy
Galgóczy Gréta	Asymmetric synthesis of spiro-derivatives by transition metal catalysis
Gomena Jacopo	Bombesin-Based Peptide-Drug Conjugates for Targeted Tumour Therapy

Horkovics-Kovats Gabriel Stefan	Mass spectrometry imaging using Rapid Evaporative Ionization Mass Spectrometry (REIMS) and Desorption Electrospray Ionization: Instrumentation and applications
Horváth László	Development of Small and Accurate Kinetic Reaction Mechanisms in Combustion Chemistry
Horváth Márius Nataniel	Functional biodegradable composite layers
Ibrahim Manhal Hameed Al-Mashhadani	Development and examination of new types and highperformance membranes for polymer electrolyte membrane fuel cells (PEMFCs)
Najbauer Eszter	In and through the membrane by solid-state NMR: investigations of the human voltage-dependent anion channel 1 And Nup98-derived FG-domains
Ilyés Kinga	Detection, isolation and characterization of extracellular vesicles
Iocheva Leonora	Development of computer simulation methods using machine learning algorithms
Jaradat Khaled	Theoretical Investigation of Fluorinated Phenyl Diene Derivatives Cyclization
Jelenfi Dániel Péter	Theoretical Investigation of Molecular Conduction
Kelemen Ádám András	Revealing the reaction path of secondary amide cis/trans isomerization
Keresztes Barbara	Exploring the Mechanism of Astrochemical Processes
Kern Dóra	Design and synthesis of self-labeling fluorogenic probes
Kotschy András Miklós	Transformation of alkenyl-thianthrenium salts in cascade reactions
Kotásková Lúcia	Multicomponent reactions of arylaldehydes including formylferrocenes to access biologically relevant novel small molecule hybrid compounds
Kóth János	Synthesis of geopolymer composites with the respect of environment protection
Kovács Dániel	Statistical studies of random coil and secondary chemical shift analysis
Kovács Imre	Total synthesis of indole alkaloids

Kőnig Bálint	Novel synthetic route towards ent-kauranes using photoredox/annulation strategy
Kubiczkó Károly	Computational modeling of complex chemical reactions
Lénárt Péter	Development of modern mass spectrometry methods for the study of the higher order structure of proteins
Makó Zita	Development of the Synthesis of Heteroatom Substituted Cage Molecules
Makoye Amosi Shitebel	Heterogeneous Catalytic Conversion of Oxygenates of Biomass Origin to Biofuels and Other Value-Added Chemicals
Molnár Adrienn	Ambient ionization mass spectrometry for the characterization of tumours and primary cell lines
Mona Alnaeem Alhassan Ibrahim	Synthesis of novel ferrocene-fused indazoles
Nagy Bálint	Synthesis and transformation of new fluorinated building blocks
Nagy Kinga	Mass spectrometry-based glycoproteomics: Method development driven by fragmentation properties
Papp Dávid	Development of new and effective mass spectrometry-based structure determination methods for peptides and proteins especially by combining the cIM and Hydrogen-Deuterium Exchange techniques
Papp Nándor	Novel methods to characterize intrinsically disordered proteins by NMR spectroscopy
Pavela Olivér	The membrane binding mechanism and oligomerization of the antifungal protein NFAP2 with molecular dynamics simulations
Rózsa Péter	Formation of thiol groups on the surface of silicon carbide nanocrystals
Salma Imre	Városi léghőri nukleáció és hatásai
Salman Saif Qahtan	Identification of new drug targets by revealing glia-neuron communication pathways
Sármezey Bence András	Biocompatible co-and terpolymers suitable for conjugation and drug delivery
Schneiker Anita	The catalytic role of polyaromatic hydrocarbons in the formation of interstellar H ₂

Sisa Rihárd	Synthesis of Phenol-, and Tyrosine containing dipeptide-based diaryloxy-ethenes
Sóvári Bence	Synthesis of Strychnos alkaloids and anti-Markovnikov products
Sőregi Petra	Synthesis of quinoline foldamer building blocks useful in drug discovery
Szakály Péter Soma	Investigation of cyclodextrin derivatives by cyclic ion mobility mass spectrometry technique
Szanthoffer András György	Chemical kinetic modeling of the combustion of ammonia fuel mixtures
Szirmai Ádám Barnabás	Improving quantum chemical embedding methods for the description of excited states
Szlávik Márton Ferenc	Development of NHC-transition metal complexes
Szobota András	Synthetic application of novel fragmentation reaction of 4-methoxybenzyl alcohol derivatives combined with photocatalytic transformations
Tarchoun Karima	Synthesis of Aza-Amino Acid Containing Peptides
Tasvilla Sonallya	Interaction models of membrane active peptides with extracellular vesicles
Tímári Mátyás Pál	Synthesis of pharmaceutically interesting building blocks
Tóbi Csaba	Development of nuclear forensic analytical methods for determining the origin of smuggled nuclear materials
Veres-Ravai Ákos	Chemical kinetic modeling of nitric oxide reduction in the presence of methane and other hydrocarbons
Vörösmarty Máté	Source apportionment of urban atmospheric aerosol
Zsigulics Bálint	Bioinspired synthesis of Hunterine A and study of sigmatropic rearrangements
Zsubrits Ábel	Electrochemical investigation of some environmentally relevant substances- formation and reactions