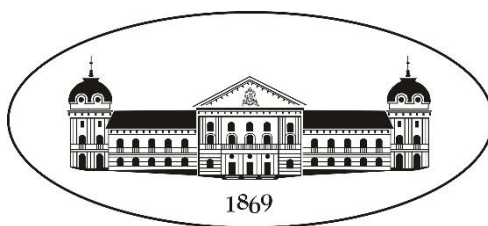
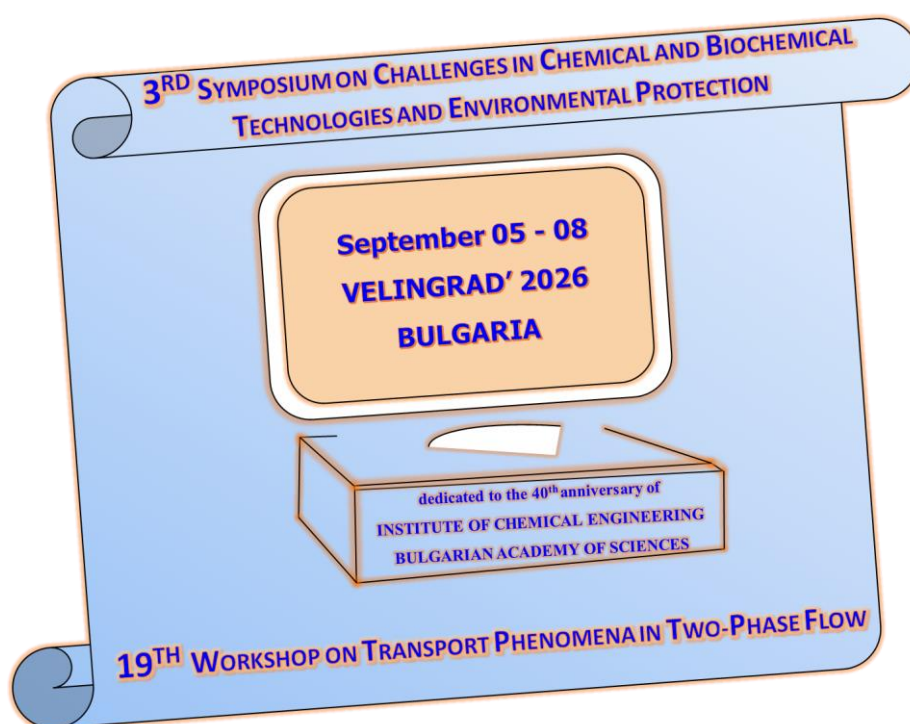


Institute of Chemical Engineering



PROGRAMME



BULGARIAN
SCIENCE
FUND

SATURDAY/SEPTEMBER 05, 2026		
ARRIVAL OF CONFERENCE PARTICIPANTS		
SUNDAY / SEPTEMBER 06, 2026		
09:00-10:00	Registration	
Chairman: Prof. Elena Razkazova		
10:00-10:30	Opening Ceremony	
Time	Speaker	Title
10:30-11:00	Tatyana Petrova	OPTIMAL DESIGN IN GRAPHENE AND MOS ₂ POLYMER NANOCOMPOSITES UNDER THERMO-MECHANICAL LOADING BY MULTI-PARAMETER OPTIMIZATION
11:00-11:30	Coffee break	
DISCUSSION ON THE RESEARCH TOPICS		
Mediator: Assis Prof. Stela Panyovska		

Time	Speaker	Title
11:30-12:30	<i>Venko Beschkov</i>	VOLATILE FATTY ACID PRODUCTION VS. METHANE AND HYDROGEN IN ANAEROBIC DIGESTION <i>(plenary lecture)</i>

12:30-13:00	Venelin Hubenov	PRELIMINARY TECHNO-ECONOMIC AND ENVIRONMENTAL ASSESSMENT OF ELECTROCHEMICAL OXIDATION-ASSISTED ANAEROBIC DIGESTION FOR ENHANCED BIOMETHANE PRODUCTION
13:00-14:00	LUNCH	
DISCUSSION ON THE RESEARCH TOPICS		
Mediator: Assis Prof. Stela Panyovska		
14:00-16:00	POSTER SESSION 1	
19:30	COCKTAIL AND OFFICIAL DINNER	
MONDAY / SEPTEMBER 07, 2026		
Chairman: Prof. Tatyana Petrova		
Time	Speaker	Title
9:30-10:00	Dimityr Kolev	NEW EXPERIMENTAL SETUP FOR TESTING HEAT EXCHANGERS WITH PHASE CHANGE MATERIALS (PCMS)
10:00-11:00	Dragomir Yankov	BIOHYDROGEN PRODUCTION FROM WASTE MATERIALS: A SUSTAINABLE ENERGY PATHWAY (plenary lecture)
11:00-11:30	Coffee break	
DISCUSSION ON THE RESEARCH TOPICS		
Mediator: Assis Prof. Konstantina Stefanova		

Time	Speaker	Title
11:30-12:00	<i>Apostol Apostolov</i>	TRANSFORMING WASTE INTO VALUE-ADDED PRODUCTS: DELIGNIFICATION OF SUNFLOWER SEED HUSKS USING NOVEL DEEP EUTECTIC SOLVENTS FOR EXTRACTION
12:00-12:30	<i>Ivan Angelov</i>	PRODUCING H ₂ S FROM ORGANIC WASTE
12:30-14:00	LUNCH	
DISCUSSION ON THE RESEARCH TOPICS Mediator: Assoc Prof. Petya Popova - Krumova		
14:00-16:00	POSTER SESSION 2	
19:30	DINNER	
ORGANIZING A BOWLING TOURNAMENT A bowling tournament is planned as an informal activity		
CLOSING THE 3 RD SYMPOSIUM "CHALLENGES IN CHEMICAL AND BIOCHEMICAL TECHNOLOGIES AND ENVIRONMENTAL PROTECTION" & 19 TH WORKSHOP "TRANSPORT PHENOMENA IN TWO-PHASE FLOW" Velingrad'2026		
TUESDAY / SEPTEMBER 08, 2026		
DEPARTURE		

POSTER SESSION 1

September 06 2026

September 06 2026	
P1	Experimental and CFD analysis of phase change material-based thermal storage for solar energy S. Panyovska, K. Stefanova, D. Dzhonova, N. Paunkov, A. Georgiev
P2	Influence of surface insulation geometry on the transient characteristics of thermal energy storage M. Rashevski, S. Slavtchev, G. Rahnev, R. Rumen Stoykov, M. Datcheva
P3	Review of boundary conditions in simulation programs for melting/solidification models of phase change materials – paraffins N. Shukova, K. Stefanova
P4	Microbial production of 2-butanol from meso-2,3-butanediol by natural producers K. Petrov, L. Tsigoriyna, B. Georgievska, P. Petrova, N. Armenova, S.Stefanov
P5	Concentration of bioactive compounds in Mavrud red wine by nanofiltration application M. Lazarova, M Dencheva-Zarkova, D Yankov, J Genova
P6	Determination of polyphenols, flavonoids and anthocyanins in Mavrud wine from the Harmanli region. Comparison with other investigated Mavrud wines M. Lazarova, D. Yankov
P7	Comparison of fermentation kinetics for lactic acid production by different lactobacilli using renewable raw materials P. Popova-Krumova, G. Naydenova, A. Apostolov, D. Yankov
P8	Nanoencapsulated drugs for prospective oncology R. Kalinova, I. Dimitrov, Y. Ilieva, M. Zaharieva, D. Iliev, G. Miloshev, D. Staneva, G. Staneva, A. Nesheva, D. Ivanova, G. Angelov, H. Najdenski
P9	Polymeric micelles modulate biofilm formation, quorum sensing, and motility in clinically relevant bacterial strains P. D. Dimitrova, Ts. Paunova Krasteva, R. Stancheva, E. Haladjova
P10	Polymeric micelles as carriers of plant extracts for effective biofilm destruction Ts. Paunova Krasteva, P. Dimitrova, R. Stancheva, E. Haladjova

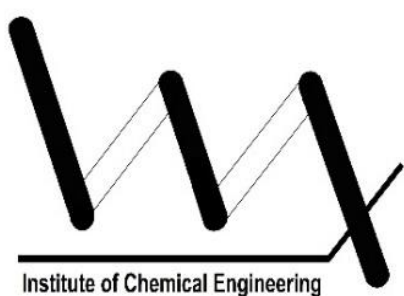
POSTER SESSION 2

September 07 2026

September 07 2026	
P11	Genome and transcriptome insights into polyhydroxybutyrate production and polycaprolactone degradation by <i>Halomonas elongata</i> strain 4 N. Krumov, N. Atanasova, I. Boyadzhieva, K. Petrov, P. Petrova
P12	Sustainable polyhydroxybutyrate production from glycerol by <i>Halomonas elongata</i> strain 4 and its structural characterization N. Krumov, M. Valkova, N. Nankova, N. Atanasova, P. Petrova, Ts. Paunova-Krasteva, K. Petrov, Boyadzhieva, I.
P13	Redox-balanced microbial biosynthesis of 2-butanol through targeted pathway engineering E. Gergov, A. Arsov, K. Petrov, L. Tsigoriyna, P. Petrova
P14	Implementing STEM education for engaging students with natural science professions E. Paunova-Hubenova, E. Trichkova-Kashamova
P15	Contemporary chemistry education in Bulgarian schools – conditions and tendencies E. Paunova-Hubenova
P16	Bioremediation potential of <i>Candida tropicalis</i> for the removal of phenolic pollutants from industrial wastewaters Maria Gerginova, Penka Petrova, Nadejda Peneva
P17	Fuel cells for simultaneous remediation of polluted streams and sustainable electricity generation S. Stefanov, N. Shukova, L. Ljutzkanov, E. Razkazova, V. Beschkov
P18	Electrode with incorporated TiO₂ for implementation in a microbial fuel cell for azo-dye decolorization E. Razkazova, N. Shukova, S. Stefanov, N. Armenova
P19	Optimization approaches for environmental protection and risk management in farm photovoltaic system selection E. Trichkova-Kashamova
P20	Assessment of microbial activity and performance of two-stage anaerobic co-digestion of a three-component substrate mixture for biogas production L. Kabaivanova, K. Berberov, I. Boyadzhieva, S. Stoychev, V. Hubenov



**Warm Thanks to the Organizers and Sponsors of the 3rd Symposium
on Challenges in Chemical and Biochemical Technologies and
Environmental Protection & the 19th Workshop on Transport
Phenomena in Two-Phase Flow**



Institute of Chemical Engineering



BULGARIAN
SCIENCE
FUND