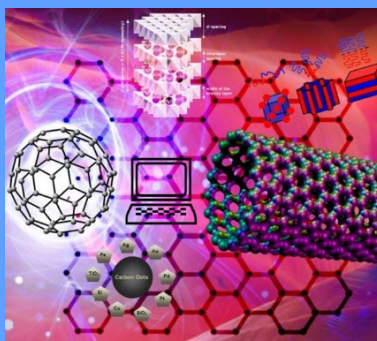


# Institute of Chemical Engineering Bulgarian Academy of Sciences

2<sup>nd</sup> SEMINAR  
ON

INVESTIGATIONS, MODELING AND  
OPTIMIZATION OF  
NANOCOMPOSITES STRUCTURES



## PROGRAM

2 APRIL, 2025

Conference hall, Hotel of BAS,  
50 “Shipchenski prohod” blvd., 1113 Sofia

*The Seminar is organized and hold with the financial support of Bulgarian National Science Fund, Contract № KII-06-H57/3/15.11.2021 under the project: “Optimal safety loads and geometry for layered nanocomposites under thermo-mechanical loading”*



# PROGRAMME

## OF 2<sup>nd</sup> SEMINAR ON INVESTIGATIONS, MODELING AND OPTIMIZATION OF NANOCOMPOSITES STRUCTURES (2<sup>nd</sup> SIMONS'25)

Wednesday, 2<sup>nd</sup> April, 2025, Conference hall, Hotel of BAS

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|--|--|
| 08:45-09:15  | Registration of participants   |
| 09:15 - 09:30  | Opening session – Prof. Dr. Tatyana Petrova  |
| Plenary lectures, Chairperson: Prof. Dr. Tatyana Petrova       |  |
| 09:30 - 10:15  | PL-01: SH wave scattering by a nanocrack in a graded piezoelectric half-plane with nanorelief<br><br><i>Prof. DSc Tsviatko Rangelov</i>                  |
| 10:15 - 11:00  | PL-02: Closed-form analysis of debonding initiation in multi-layered systems<br><br><i>Prof. Dr.-Ing. Wilfried Becker</i>                                |
| 11:00 - 11:30  | COFFEE BREAK   |
| Key lectures, Chairperson: Assoc. Prof. Dr. Elisaveta Kirilova |  |
| 11:30 - 12:00  | KL-01: Optimal safety intervals for geometry and loads in polymer nanocomposites by multi-parameter optimization<br><br><i>Prof. Dr. Tatyana Petrova</i> |
| 12:00 - 12:30  | KL-02: Producing and characterization of PtCoP alloy coatings on powdered carbon support<br><br><i>Assoc. Prof. Dr. Jenia Georgieva</i>                  |
| 12:30 – 14:00  | LUNCH TIME   |

| Key lectures, Chairperson: Assoc. Prof. Dr. Rayka Vladova |  |
|---|--|
| 14:00 – 14:30   | <p>KL-03: Low temperature synthesis of corundum ceramics and study of the effect of specially introduced nanoadditives</p> <p><i>PhD student Margarita Georgieva</i></p> |
| 14:30 – 15:00   | <p>KL-04: Multi-parameter optimization of layered <math>Ti_3C_2</math> Mxene/PMMA nanocomposite under mechanical loading</p> <p><i>MSc. Alexander Moravski</i></p>       |
| 15:00 – 15:30   | COFFEE BREAK   |
| 15:30 – 16:30   | Poster session for young scientists, PhD and Postdoc students, Students and colleagues   |
| 16:30 – 17:00   | Working meeting for the team members of project KII-06-H57/3/15.11.2021  |
| 17:00 – 18:00   | Closing ceremony, refreshments & snacks  |