

SCIENTIFIC PROGRAMME

MONDAY, JUNE 11

Chairperson: Dr. Evgenia Benova

- 10:00 **Opening ceremony**
- 10:15 CHEMICAL PROCESSES INITIATED BY ELECTRICAL DISCHARGES AS LABORATORY MIMICS OF NON-TERRESTRIAL ATMOSPHERIC PROCESSES T3
Prof. Frantisek Krcma, *Brno University of Technology, Faculty of Chemistry, Czech Republic*
- 11:30 PLASMA JET AS A SOURCE FOR WOUND HEALING T3
Dr. Todor Bogdanov, *Medical University - Sofia, Bulgaria*
- 12:15 METAMATERIALS AND THEIR CHARACTERIZATION IN THE MICROWAVE RANGE T3
Dr. Plamen Dankov, *Sofia University "St. Kliment Ohridski", Faculty of Physics, Bulgaria*

Chairmen: Prof. Frantisek Krcma

- 16:00 EXPERIMENTAL INVESTIGATION OF MICROWAVE PLASMA TORCH T3
Ivan Tsonev, *Sofia University "St. Kliment Ohridski", Faculty of Physics, Bulgaria*
- 16:25 SURFACE-WAVE-SUSTAINED PLASMA TORCH FOR BIOLOGICAL SYSTEMS TREATMENT T3
Plamena Marinova, *University of Forestry, Bulgaria*
- 17:20 ELECTRICAL AND SPECTRAL ENERGY DIAGNOSTICS OF PULSED CONTINUOUS SPECTRUM IRRADIATION SOURCES T3
Sergey Kireev, *Scientific and Industrial Enterprise "Melitta", Ltd, Russia*
- 17:45 LASER ABLATION ON GLASS MATERIALS DOPPED WITH GOLDEN NANOPARTICLES T3
Dr. Ekaterina Iordanova, *Institute of Solid State Physics, Bulgarian Academy of Sciences, Bulgaria*
- 19:30 **WELCOME PARTY**

TUESDAY, JUNE 12
WORKSHOP: Pegasus

Chairperson: Dr. Elena Tatarova

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| 09:00 | OPENING PEGASUS WORKSHOP
Dr. Elena Tatarova , <i>Instituto de Plasmas e Fusão Nuclear, Instituto Superior Tecnico, Universidade de Lisboa, Portugal</i> | WP |
| 09:10 | SYSTEM FOR DEPOSITION OF CARBON NANOSTRUCTURES AT ATMOSPHERIC PRESSURE
Prof. Zhivko Kiss'ovski , <i>Sofia University "St. Kliment Ohridski", Faculty of Physics, Bulgaria</i> | WP |
| 09:35 | ATMOSPHERIC PLASMA DEPOSITION OF COPPER OXIDE 2D NANOSTRUCTURES
Dr. Gregor Filipič , <i>"Jožef Stefan" Institute, Slovenia</i> | WP |
| 10:00 | PLASMA-ASSISTED BOTTOM-UP APPROACH FOR THE SYNTHESIS OF VERTICALLY ALIGNED CARBON NANOSTRUCTURES USING POLYMER GELS
Mr. Neelakandan Marath Santhosh , <i>"Jožef Stefan" Institute, Slovenia</i> | WP |

Chairperson: Dr. Elena Tatarova

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| 11:30 | ELECTRICAL CONDUCTIVITY OF FREE-STANDING N-GRAPHENE SHEETS
Prof. Evgenia Valcheva , <i>Sofia University "St. Kliment Ohridski", Faculty of Physics, Bulgaria</i> | WP |
| 11:55 | RAMAN SPECTROSCOPY OF GRAPHENE AND NITROGEN DOPED GRAPHENE FLAKES: EFFECTS OF THE SYNTHESIS TECHNOLOGY AND THE MEASUREMENT CONDITIONS ON THE SPECTRA LINES PARAMETERS
Dr. Neno Todorov , <i>Sofia University "St. Kliment Ohridski", Faculty of Physics, Bulgaria</i> | WP |
| 12:20 | 3D-MECHANISM OF NITROGEN-DOPED GRAPHENE FORMATION IN MICROWAVE PLASMAS
Prof. Dzmitry Tsyhanou , <i>Instituto de Plasmas e Fusão Nuclear, Portugal</i> | WP |
| 12:45 | POLYMERIZATION AND NEGATIVE ION FORMATION IN REACTIVE HYDROCARBON PLASMAS
Cédric Pattyn , <i>GREMI, France</i> | WP |
| 14:00 | EXCURSION | |

WEDNESDAY, JUNE 13

Chairmen: Prof. Zhivko Kiss'ovski

- 09:30 ON THE CHARACTERIZATION OF NANOMATERIALS: T3
TECHNIQUES AND APPLICATIONS
Prof. Amelia Almeida, *Instituto Superior Tecnico, Universidade de Lisboa, Portugal*
- 10:15 HOW CAN PLASMAS BUILD 2D CARBON NANOSTRUCTURES? T3
Prof. Uros Cvelbar, *“Jožef Stefan” Institute, Slovenia*
- 11:30 PLASMA-BASED N-GRAPHENE SYNTHESIS: T3
POST-TREATMENT APPROACH
Dr. Neli Bundaleska, *Instituto de Plasmas e Fusão Nuclear, Instituto Superior Tecnico, Universidade de Lisboa, Portugal* CONTROLLABLE
- 12:15 LARGE-SCALE N-GRAPHENE SYNTHESIS: T3
IN-SITU PLASMA-BASED METHOD
Dr. Francisco Dias, *Instituto de Plasmas e Fusão Nuclear, Instituto Superior Tecnico, Universidade de Lisboa, Portugal*

Chairmen: Dr. Francisco Dias

- 16:00 VACUUM ULTRAVIOLET RADIATION EMITTED BY ARGON T3
PLASMAS
Dr. Julio Henriques, *Instituto de Plasmas e Fusão Nuclear, Instituto Superior Tecnico, Universidade de Lisboa, Portugal*
- 16:25 VUV AND EUV SPECTROSCOPY OF SURFACE-WAVE PLASMAS T3
Dr. Edgar Felizardo, *Instituto de Plasmas e Fusão Nuclear, Instituto Superior Tecnico, Universidade de Lisboa, Portugal*
- 17:20 PULSED CONTINUOUS SPECTRUM RADIATION SOURCE WITH A T3
QUARTZ-SAPPHIRE ENVELOPE
Sergey Kireev, *Scientific and Industrial Enterprise "Melitta", Ltd, Russia*
- 19:30 **OFFICIAL DINNER**

THURSDAY, JUNE 14

Chairperson: Dr. Miglena Dimitrova

- 09:30 ADVANTAGES OF THE FIRST-DERIVATIVE PROBE TECHNIQUE OVER THE THREE- AND FOUR-PARAMETER PROBE TECHNIQUES IN FUSION PLASMAS DIAGNOSTICS T1
Dr. Tsviatko Popov, *Sofia University "St. Kliment Ohridski", Faculty of Physics, Bulgaria*
- 10:15 MEASUREMENTS OF SHUNT CURRENTS BY THE FLOATING DIVERTOR TILE IN THE COMPASS TOKAMAK T1
Dr. Michael Komm, *Institute of Plasma Physics, Czech Academy of Sciences, Czech Republic*
- 11:30 CONCEPTUAL DESIGN OF THE COMPASS-U TOKAMAK T1
Dr. Radomir Panek, *Institute of Plasma Physics, Czech Academy of Sciences, Czech Republic*
- 12:15 REMOTE OPERATION OF THE GOLEM TOKAMAK FROM KITEN T1
Dr. Jan Stockel, *Institute of Plasma Physics, Czech Academy of Sciences, Czech Republic*

Chairmen: Dr. Jan Stockel

- 16:00 **WORKSHOP:** Remote GOLEM operation WG

FRIDAY, JUNE 15

Chairmen: Prof. Uros Cvelbar

- 9:30 NEAR-EDGE X-RAY ABSORPTION FINE STRUCTURE SPECTROSCOPY AS TOOL FOR THE ANALYSIS OF CARBONACEOUS MATERIALS FROM PLASMAS T3
Dr. Thomas Strunskus, *Institute for Materials Science, CAU Kiel, Germany*
- 10:15 PLASMA BASED DEPOSITION OF CONDUCTIVE POLYMERS T3
Dr. Johannes Berndt, *GREMI, France*
- 11:30 NANOCOMPOSITES FOR CHEMICAL DETECTION T3
Prof. Eva Kovacevic, *GREMI, France*
- 12:15 BIOLOGICAL EFFECTS OF LOW-TEMPERATURE PLASMA T3
Prof. Irina Sitdikova, *Kazan Federal University, Russia*
- 12:40 BIOLOGICAL EFFECTS OF LOW TEMPERATURE PLASMA T3
Mrs. Svetlana Fadeeva, *Kazan Federal University, Russia*

Chairmen: Dr. Francisco Dias

- 16:00 GRAPHENE NANOCOMPOSITES FOR BIOSENSING APPLICATIONS T3
Mrs. Ana Dias, *Instituto de Plasmas e Fusão Nuclear, Instituto Superior Tecnico, Universidade de Lisboa, Portugal*
- 16:25 PHOTOLUMINESCENCE OF GRAPHENE QUANTUM DOTS PRODUCED BY MICROWAVE PLASMA T3
Mrs. Susana Espinho, *Instituto de Plasmas e Fusão Nuclear, Instituto Superior Tecnico, Universidade de Lisboa, Portugal*

Chairmen: Dr. Michael Komm

- 17:20 EEDF IN THE COMPASS DIVERTOR REGION DURING AN IMPURITY-SEEDING EXPERIMENT T1
Dr. Miglena Dimitrova, *Institute of Plasma Physics, Czech Academy of Sciences, Czech Republic*
- 17:45 ELECTRONIC SYSTEM FOR THE WEST TOKAMAK LANGMUIR PROBE T1
Dr. Mladen Mitov, *Faculty of Physics, St. Kliment Ohridski University of Sofia, Bulgaria*

SATURDAY, JUNE 16

Chairperson: Dr. Evgenia Benova

- 09:30 EXPLORATION OF PLASMA TIME-SCALES USING POWER-INTERRUPTION T2
Prof. Joost van der Mullen, *Université libre de Bruxelles, Belgium*
- 10:15 PLASMA CHARACTERIZATION GUIDED BY THOMSON SCATTERING T2
Prof. Joost van der Mullen, *Université libre de Bruxelles, Belgium*

Chairperson: Dr. Evgenia Benova

- 11:30 THEORETICAL STUDY ON SOME PLASMA PARAMETERS AND THERMOPHYSICAL PROPERTIES OF GAS DISCHARGE IN VARIOUS GAS MIXTURES T2
Dr. Krassimir Temelkov, *Institute of Solid State Physics, Bulgarian Academy of Sciences, Bulgaria*
- 12:15 ATMOSPHERIC PRESSURE GLOW DISCHARGE FOR CO₂ CONVERSION: MODELLING AND EXPERIMENTS T2
Mr. Georgi Trenchev, *University of Antwerp, Belgium*
- 12:40 **Closing**

Posters

- P1 STUDY OF THE RESONANT MAGNETIC PERTURBATION EFFECT ON THE PLASMA PARAMETERS BY LANGMUIR PROBES IN THE COMPASS DIVERTOR REGION
Dr. Miglena Dimitrova, *Institute of Plasma Physics, Czech Academy of Sciences, Czech Republic*
- P2 PARTICLE-IN-CELL SIMULATIONS OF FLUSH-MOUNTED PROBES AND IMPLICATIONS FOR COMPASS-UPGRADE PROJECT
Mr. Ales Podolnik, *Institute of Plasma Physics, Czech Academy of Sciences, Czech Republic*