

TABLE OF CONTENTS

TABLE OF CONTENTS	4
PROGRAMME	7
<i>Surface- and tip-enhanced Raman scattering on carbon nanostructures</i> <u>Stephanie Reich</u>	12
<i>Enhanced Raman scattering on functionalized graphene substrates</i> <u>Václav Valeš</u> , <u>P. Kovaříček</u> , <u>M. Fridrichová</u> , <u>X. Ji</u> , <u>X. Ling</u> , <u>J. Kong</u> , <u>M. S. Dresselhaus</u> , <u>M. Kalbáč</u>	13
<i>Carbon nanotube chirality determines properties of encapsulated long linear carbon chains</i> <u>Sebastian Heeg</u> , <u>L. Shi</u> , <u>L. V. Poulikakos</u> , <u>T. Pichler</u> , <u>L. Novotny</u>	14
<i>Excitons in two-dimensional semiconductors “talking” to their environment</i> <u>Kirill Bolotin</u>	15
<i>Spectroscopy of horizontally and vertically aligned thin MoS₂ films</i> <u>M. Sojková</u> , <u>J. Hagara</u> , <u>P. Hutár</u> , <u>P. Šiffalovič</u> , <u>Martin Hulman</u>	16
<i>Fluorographane C₂FH: stable and wide band gap insulator with huge excitonic effect</i> <u>František Karlický</u> , <u>J. Turoň</u>	17
<i>Charge and energy transfer in two-dimensional heterostructures</i> <u>Stéphane Berciaud</u>	18
<i>Plasmon Induced Magneto-Optical Enhancement in Metallic Ag/FeCo Core/Shell Nanoparticles Synthesized by Colloidal Chemistry</i> <u>Alberto López-Ortega</u> , <u>M. Takahashi</u> , <u>S. Maenosono</u> , <u>P. Vavassori</u>	20
<i>Electrochemically Controlled Winding and Unwinding of HOPG Supported Carbon Nanoscroll</i> <u>Hana Tarábková</u> , <u>Z. Zelinger</u> , <u>P. Janda</u>	21
<i>2D materials: preparation, functionalization and application in sensing</i> <u>Artur Ciesielski</u>	22
<i>Chemistry on and with graphene: Introducing Selectivity, Functionality and Motion</i> <u>Petr Kovaříček</u> , <u>K. A. Drogowska</u> , <u>V. Valeš</u> , <u>J. Plšek</u> , <u>M. Fridrichová</u> , <u>V. L. P. Guerra</u> , <u>V. Blechta</u> , <u>Z. Bastl</u> , <u>M. Kalbáč</u>	23
<i>Fluorinated Graphene on Copper – Reactivity Driven by Support Phase Orientation and Decomposition under Heat Treatment</i> <u>Jan Plšek</u> , <u>P. Kovaříček</u> , <u>V. Valeš</u> , <u>Martin Kalbáč</u>	25
<i>Effect of hydrogenation on the particular layer in isotopically labelled Turbostratic- and Bernal stacked bilayer graphene</i> <u>Karolina Drogowska</u> , <u>V. L.P. Guerra</u> , <u>P. Kovaříček</u> , <u>M. Kalbáč</u>	26
<i>Atomic-Scale Defect-Engineering of 2D Materials with Electron and Ion Beams</i> <u>Jani Kotakoski</u>	28
<i>Defects and interlayer coupling in in van der Waals heterostructures</i> <u>Nedjma Bendiab</u> , <u>G. Nayak</u> , <u>S. Lisi</u> , <u>S. Dubey</u> , <u>D. Kalita</u> , <u>M. Lazzeri</u> , <u>J. Renard</u> , <u>V. Bouchiat</u> , <u>L. Marty</u> , <u>J. Coraux</u>	29

X-ray Scattering on Highly Perturbed Carbon Nanomaterials <i>Milan Dopita, L. Horák, M. Rudolph, Z. Matěj</i>	30
Electron Irradiation-Induced Defects and Phase Transformations in Two-Dimensional Transition Metal Dichalcogenides <i>Arkady V. Krasheninnikov</i>	32
In-situ spectroelectrochemistry of catalytically active sites in molybdenum dicalcogenide mono- and fewlayers for HER <i>E. Mitterreiter*, E. Parzinger, M. Golizbruch, J. Ager III, A. Holleitner, Ursula Wurstbauer</i>	33
Magnetoplasmonic Heterostructures for Theranostic Applications <i>Alejandro G. Roca, E. Fantechi, Z. Li, A. López-Ortega, A. A.-Ramos, C. Nogués, B. Sepúlveda, J. Nogués</i>	34
Single 3d transition metal atoms on multi-layer graphene systems: electronic configurations, bonding mechanisms and role of the substrate <i>Jan Honolka, V. Sessi, S. Stepanow, A. N. Rudenko, S. Krotzky, K. Kern, F. Hiebel, P. Mallet, J. Y. Veullen, O. Šipr, N. B. Brookes</i>	36
Electronic detection of DNA on graphene <i>Jiří Červenka</i>	37
Multi-responsive nanocomposites based on liquid crystals <i>Anna Poryvaj, J. Kalbáčová Vejpravová, J. Svoboda, V. Novotná, M. Kohout</i>	38
Resonance Raman spectrum of epitaxial graphene doped towards the Lifshitz transition <i>Alex Grüneis</i>	42
Quasi-2D Liquid Nanofoam on Water-Immersed Solid Surface <i>Pavel Janda, H. Tarábková, J. Klíma</i>	43
Physical properties of metal-organic frameworks doped with TCNQ <i>Hidetsugu Shiozawa, B. C. Bayer, H. Peterlik, J. C. Meyer, W. Lang, T. Pichler</i>	45
Thermoelectric properties of thin films <i>Oliver Fenwick</i>	46
Back-gated epitaxial graphene on SiC <i>Jan Kunc, M. Rejhon, V. Dědič</i>	47
Graphitization of diamond through different routes <i>Viera Skákalová, S. Tulić, T. Waitz, G. Habler, M. Varga, A. Kromka, V. Vretenár, M. Čaplovičová</i>	48
Controllable synthesis of highly crystalline single and few layer MoS₂ and the role of growth-induced strain <i>John Parthenios, A. Michail, D. Anastopoulos, M. Christiana, L. Ortolani, V. Morandi, K. Papagelis</i>	50
Graphene as substrate for selective self-assembly of 2-D materials for optoelectronic applications <i>Valentino L. P. Guerra, P. Kovaříček, V. Valeš, K. Drogowska, T. Verhagen, J. Vejpravova, L. Horák, A. Listorti, S. Colella, M. Kalbáč</i>	52

Transport and incommensurate quantum-size oscillations in oligoacene molecular wires <u>Richard Korytár</u>	53
2D-3D Interfaces from the Topography Standpoint <u>Otakar Frank</u>	54
Mastering the topography of graphene. <u>Tim Verhagen, B. Pacakova, P. Kovaricek, V. Vales, O. Frank, M. Kalbac, J. Vejpravova</u>	55
POSTERS	57
Micromagnetics overview and its application on nanoparticle magnetic studies. <u>David Aurélio</u>	58
Control of diindenoperylene molecular layer orientation by means of crystallographic orientation of underlying few-layer MoS₂ thin film <u>J. Hagara, N. Mrkývková, P. Nádaždy, A. Shaji, P. Šiffalovič, M. Jergel, E. Majková, M. Hodas, F. Schreiber, P. Hutár, M. Sojková, M. Hulman</u>	59
SERS of isotopically labelled ¹²C/¹³C graphene bilayer: graphene layer as spacer and probe <u>Martin Kalbáč, J. Ek Weis, S. Costa, O. Frank, M. Fridrichová, B. Vlčková, J. Vejpravová</u>	60
Thermodynamically driven self-organization of dynamic covalent polymers on graphene <u>Jiří Mikšátko, L. Assies, P. Kovaříček, M. Kalbáč</u>	61
Nanoscale electrical properties of thin films after laser irradiation <u>Álvaro Rodríguez, E. Gutiérrez-Fernández, M.-C. García-Gutiérrez, A. Nogales, T. A. Ezquerro, E. Rebollar</u>	62
Local Photocurrent Characterization of Graphene-Silicon Schottky Junction <u>Jaroslava Řáhová, A. Vetushka, K. Sampathkumar, Z. Hájková, M. Ledinský, A. Fejfar, O. Frank</u>	63
Nanoscale Photovoltaic Characterization of WSe₂-MoS₂ Monolayer Diodes <u>Krishna Sampathkumar, A. Vetushka, A. Fejfar, O. Frank</u>	64
Spin Seebeck effect in ε-Fe₂O₃ thin films <u>K. Knížek, M. Pashchenko, P. Levinský, O. Kaman, J. Houdková, P. Jiříček, J. Hejtmánek, Miroslav Soroka, J. Buršík</u>	65
Spin hybrids – a new concept of magnetic matter <u>Jana Vejpravova, M. Kalbac</u>	66
LIST OF PARTICIPANTS	67
AUTHOR INDEX	71