

## Day 1: September 20, Wednesday

14:00 – 18:00 Registration

Faculty of Physics, Taras Shevchenko National University of Kyiv, Hlushkov ave., 4

## Day 2: September 21, Thursday

Institute of Continuing Education of Taras Shevchenko National University of Kyiv,

Vasylkivska str., 36

9:00 – 10:00 - Registration

PLENARY SESSION 1	
10:00-10:20	<b>Opening word</b>
10:20-11:00	<b>M.Y. Valakh</b> <i>Raman Spectroscopy of Crystals and Films of Semiconducting Multicomponent Chalcegenides</i>
11:00-11:30	<b>V.A. Schenderovsky</b> <i>The Tragic Scrolls of Ukrainian Science. To the 100th Anniversary of the National Academy of Sciences of Ukraine</i>

11:30-12:00 – Coffee break

### Group photo of ISSSMC Participants

SESSION 1	
12:00-12:40	<b>L.N. Lisetski</b> <i>Anisometric Nanoparticles in Liquid Crystals: Experimental Evidencing of Short-Range Ordering Features</i>
12:40-13:00	<b>S.L. Yefimova</b> <i>GdVO<sub>4</sub>:Eu<sup>3+</sup> Nanoparticles as Energy Donors for Methylene Blue in Fluorescence Resonance Energy Transfer Experiments</i>
13:00-13:20	<b>I.M. Dmitruk</b> <i>Quantum Chemistry Calculations and Determination of the Structure of Nanoclusters</i>
13:20-13:40	<b>L.Yu. Khomenkova</b> <i>Spectroscopic and Structural Characterization of Cu-Doped Y-ZrO<sub>2</sub></i>
13:40-14:00	<b>M. Drozd</b> <i>“Current publisher statistic of manuscripts flow and quality content development in Journal of Molecular Structure”</i>

14:00-15:00 – Lunch

SESSION 2	
15:00-15:40	<b>V. Korzh</b> <i>Fluorescence correlation spectroscopy in zebrafish in vivo</i>
15:40-16:00	<b>D. Kamenskyi</b> <i>Terahertz Study of the Lattice Dynamics of the Rare-Earth Binary Molybdates MRe(MoO<sub>4</sub>)<sub>2</sub></i>
16:00-16:20	<b>M. Drozd</b> <i>The Comparison of Theoretical and Experimental Data for Guanidinium Trichloroacetate Complex</i>
16:20-16:40	<b>Y. Hizhnyi</b> <i>Luminescence Mechanisms in ZnMoO<sub>4</sub> Scintillation Crystals</i>
16:40-17:00	<b>M.I. Gorobets</b> <i>Speciation in Solutions of Lithium Salts in Dimethyl Sulfoxide, Propylene Carbonate and Dimethyl Carbonate from Raman Data</i>

17:00-18:00 – Poster Session 1 (Molecules; Crystals; Liquid Crystals)

18:00-19:00 – Get Together Party

## Day 3: September 22, Friday

Institute of Continuing Education of Taras Shevchenko National University of Kyiv,  
Vasylkivska str., 36

### PLENARY SESSION 2

9:00-9:40	<b>V.G. Nazarenko</b> <i>Lyotropic Chromonic Liquid Crystals: from Molecules to Crystal</i>
9:40-10:20	<b>V.M. Yashchuk</b> <i>Mobile Electronic Excitations in Polynucleotides and Oligonucleotides</i>
10:20-11:00	<b>G.E. Grechnev</b> <i>Electronic Structure Evolution with Pressure in Narrow Band Gap Oxides and Chalcogenides</i>

**11:00-11:30 – Coffee break**

### SESSION 3

11:30-12:00	<b>V.Ya. Gayvoronsky</b> <i>Nonlinear Optical Diagnostics of Porous Carbon Materials</i>
12:00-12:30	<b>V.I. Sugakov</b> <i>Manifestation of Optical Vibrations in Thermoluminescence of Organic Polymers</i>
12:30-12:50	<b>N.A. Davydova</b> <i>Phase Transitions of Ortho-benzylphenol and Its Crystallization Behavior</i>
12:50-13:10	<b>M. Krupová</b> <i>Tracking of Amyloid Fibril Formation by Chiral Spectroscopic Methods</i>
13:10-13:30	<b>O.S. Tarnavskyy</b> <i>Improved Conformal Mapping Technique for Calculating Plane Director Profiles in Nematic Cells</i>
13:30-13:50	<b>V.I. Melnyk</b> <i>Cooling Rate Effect on 5CB Liquid Crystal Luminescence Spectra</i>

**14:00-15:00 – Lunch**

### SESSION 4

15:00-15:30	<b>A.I. Ivanisik</b> <i>Scattering of Ginzburg-Frank and Cherenkov Types under Self-focusing of Nanosecond Laser Pulse in Liquids</i>
15:30-15:50	<b>D.O. Dorohoi</b> <i>Spectral Methods Used in Characterizing the Excited Electronic States of Molecules</i>
15:50-16:10	<b>K. Kristinaitytė</b> <i><sup>1</sup>H NMR Study of Lyotropic Liquid Crystals with Biomedical Interest and Metabolites in Water Solutions</i>
16:10-16:30	<b>N.E. Kornienko</b> <i>Spectral Analysis of Diamond Deformations: Amplification of Vibrational Bands and Initiation of Inhomogeneities of Monocrystals</i>
16:30-16:50	<b>I.P. Terenetskaya</b> <i>Comparative study of Provitamin D Photoisomerization in Solutions and in Liquid Crystalline Matrices by UV Absorption Spectroscopy</i>
16:50-17:10	<b>V.O. Hryn</b> <i>The Synthesis of Silver Nanoparticles in Holographic Photopolymers: Mechanism of Nanoparticle Formation and Their Optical Properties</i>
17:10-17:30	<b>A.O. Kryvoruchko</b> <i>Physical and Chemical Properties of Steel Surface Modified by Ionic Implantation</i>

**17:30-18:00 – Coffee break**

**17:30-19:00 – Poster Session 2 (Nanoobjects; Surfaces and Films)**

## Day 4: September 23, Saturday

Faculty of Physics, Taras Shevchenko National University of Kyiv, Hlushkov ave., 4

### PLENARY SESSION 3

9:00-9:40	<b>I. Estrela-Lopis</b> <i>Monitoring and Quantification of Engineered Nanomaterials at Single Cell Level by Means of Element-and Molecule Based Imaging and Dosimetric Techniques</i>
9:40-10:20	<b>C.O. Areal</b> <i>Probing Brønsted Acidity of Protonic Zeolites with Variable Temperature Infrared Spectroscopy</i>
10:20-11:00	<b>G.I. Dovbeshko</b> <i>Effects and Mechanisms of Graphene Enhancement Raman Scattering (GERS)</i>

### 11:00-11:30 – Coffee break

### SESSION 5

11:30-11:50	<b>O.A. Yeshchenko</b> <i>Photoluminescence of Fullerene C 60 Thin Film in Plasmon Coupled Au NPs Monolayer – C 60 Film – Al Film Nanostructure</i>
11:50-12:10	<b>O.V. Chukova</b> <i>Influence of the Ca<sup>2+</sup> Impurities on Luminescent Properties of the EuVO<sub>4</sub> Sol-Gel Nanoparticles</i>
12:10-12:30	<b>V. Borysiuk</b> <i>Computational Studies of Spectroscopic Monitoring of XO<sub>4</sub><sup>2-</sup> (X = Cr, Mo, W) Oxide Molecular Anions Adsorption on the Surface of Carbon Nanostructures</i>
12:30-12:50	<b>A.V. Nikolaienko</b> <i>The Features of Conductivity of TlInS<sub>2</sub> Ferroelectric C- and 2C-Polytypes</i>
12:50-13:10	<b>A.V. Sorokin</b> <i>Metal-Enhanced Fluorescence of Molecular Aggregates</i>
13:10-13:30	<b>V.P. Yashchuk</b> <i>Influence of Multiple Scattering in the Bulk and at the Borders of Multiply Scattering Medium on the Random Lasing Characteristics</i>

### 14:00-15:00 – Lunch

### SESSION 6

15:00-15:20	<b>V.Ya. Gotsulskiy</b> <i>Nature of the Peculiar Points for Aqueous Solutions of Alcohols</i>
15:20-15:40	<b>A.M. Kutsyk</b> <i>Complexation in Aqueous Solutions of Isopropanol: 2D COS and MCR Analysis of Vibrational Spectra</i>
15:40-16:00	<b>V. Balevicius</b> <i>Ergodicity of Spin Systems and Perfectness of Nano-Structured Materials</i>
16:00-16:20	<b>N.E. Kornienko</b> <i>Spectral Study of the Collective Properties of Vibrational Modes of CHCl<sub>3</sub> in Solutions with CH<sub>3</sub>OH</i>
16:20-16:40	<b>I. Hurjui</b> <i>Spectral Study of Model Membrane Fluidity Using a Fluorescent Marker</i>
16:40-17:00	<b>I.V. Luzhnyi</b> <i>Tl<sub>10</sub>Hg<sub>3</sub>Cl<sub>16</sub> Crystals and Determination of Their Electronic Structure</i>

**17:00-18:00 – Poster Session 3 (Biomolecules&Polymers; Theory; Methods&Applications)**

**18:30-21:00 – Conference Dinner**

## Day 5: September 24, Sunday

Faculty of Physics, Taras Shevchenko National University of Kyiv, Hlushkov ave., 4

PLENARY SESSION 4	
9:00-9:40	<b>A.P. Demchenko</b> <i>Excitons in J-aggregates of Cyanine Dyes: Photophysics and Design of Ultra-Bright and Wavelength-Converting Nanocomposites</i>
9:40-10:20	<b>M.V. Bondar</b> <i>Two-Photon Absorbing Star-Shaped Squaraine Derivative: Linear Photophysics And Femtosecond Nonlinear Spectroscopy</i>
10:20-10:40	<b>E.S. Kryachko</b> <i>Examining the He-He Bond in Endohedral Fullerene He 2 @C60: Tip of Iceberg</i>
10:40-11:00	<b>V.M. Yashchuk</b> Spectral Properties at Low Temperatures of Fluorescent Guanine Substitute as a Probe for Biopolymers Detection

**11:00-11:30 –Coffee break**

SESSION 7	
11:30-11:50	<b>V.P. Yashchuk</b> <i>Application of Stimulated Raman Scattering of Lasing Dyes in Multiple Scattering Media at Room Temperature for Their Vibrational Spectrum Determination</i>
11:50-12:10	<b>A. Vasylieva</b> <i>FTIR Spectra of Water in Ar Matrix and in Condensed State</i>
12:10-12:30	<b>A.I. Lesiuk</b> <i>Director Orientation Instability in Homeotropic Nematic Liquid Crystal Cell in Electric Field</i>
12:30-12:50	<b>A.C. Morosanu</b> <i>Statistical Cell Model of Ternary Solutions Applied for Determining the Interaction Energy Between Two Molecules</i>
12:50-13:10	<b>Ye.V. Onykienko</b> <i>Plasmon Enhanced Excitation of Molecule by Electron Energy Loss Spectroscopy</i>
13:10-13:30	<b>M.V. Timofeev</b> <i>Theory of Interparticle Interactions in Water and Alcohols of Methanol Series</i>
13:30-13:50	

**14:00-15:00 – Lunch**

**15:00-18:00 – Excursion**

## Day 6: September 25, Monday

Institute of Physics NAS of Ukraine, Nauky ave., 46

PLENARY SESSION 5	
10:00-10:40	<b>A.M. Yaremko</b> <i>Multi Fermi-Davydov Resonances in Vibration Spectra of Hydrogen Bonded Crystals</i>
10:40-11:20	<b>I.V. Blonskyi</b> <i>Ultrashort light pulses in transparent solids: propagation peculiarities and practical applications</i>
11:20-11:40	<b>A.M. Dmytruk</b> <i>Computational Prediction of ZnO Tetrapod Morphology</i>
11:40-12:00	<b>V.S. Ovechko</b> <i>Spectral Particularities of Femtosecond Optical Pulse Propagating in Dispersive Medium</i>
12:00-12:20	<b>A.P. Bukivskii</b> <i>Kinetics of Photoluminescence of PbCdI<sub>2</sub> Solid Solutions</i>
12:20-12:40	<b>A.O. Shcherbakov</b> <i>Optical Properties of Graphene-Protected Multilayer Structures Based on Noble Metals</i>
12:40-13:00	<b>G.Yu. Rudko</b> <i>Phosphorescence in the Composite Nano-CdS/polyvinyl alcohol</i>

## Closing Ceremony