ΤΡCΙ (ΙΘΦΧ) 2025

1. **Publications in Refereed Journals**

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Phys. Rev. Applied **2025**, *24*, 014028.
DOI: 10.1103/dnst-bm1h

2. "Film-Based Multi-Photon Lithography for Efficient Printing of Electromagnetic Surface Structures",
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3. "Graphene Nanosheet-Gold Nanopatch Metasurfaces for Nonlinear Response at THz Frequencies",
A. Theodosi, I. A. Otoo, A. Koulouklidis, N. Matthaiakakis, G. Kakarantzas, P. Mustonen, H. Lipsanen, G. Fedorov, I. Liontos, S. Tzortzakis, P. Kuzhir, M. Kafesaki, and O. Tsilipakos,
ACS Applied Nano Materials **2025**, *8*, 24473.
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4. "Holographic mmWave Metasurface Integrating THz Sensing for 6G Wireless Networks",
H. Taghvaee, A. Pitilakis, M. Khodadadi, O. Tsilipakos, A.-A. A. Boulogeorgos, M. Khalily,
IEEE Wireless Communications **2025**, *32*, 54.
DOI: 10.1109/MWC.001.2400495

5. "Free-standing zirconia metasurfaces for microwave resonant polarization conversion",
D. C. Zografopoulos, K. Ntokos, G. Nousios, G. de Calan, O. Tsilipakos, W. Fuscaldo, A. Xomalis, L. Petho, J. F. Algorri, V. Dmitriev, T. V. Yioultsis, E. E. Kriezis,
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6. "Advances in modeling and optimization for two-photon lithography",
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J. Micro/Nanopattern. Mats. Metro. **2025**, *24*, 023001.
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7. "Silicon slot metasurface supporting a multitude of bound states in the continuum: theoretical and experimental studies",
G. Nousios, J. F. Algorri, W. Fuscaldo, F. Dell'Olio, S. Romano, G. Zito, B.

Miranda, Y. Ding, V. Dmitriev, L. Andreani, M. Galli, O. Tsilipakos, E. Kriezis, D. Zografopoulos,
Optics & Laser Technology **2025**, *192*, 113398.
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8. "3D-printed split ring resonators as potential microwave strain sensors",
Z. Viskadourakis, M. Orfanou, A. Theodosi, O. Tsilipakos, E. Koudoumas, G. Kenanakis,
Discover Sensors **2025**, *1*, 31.
DOI: 10.1007/s44397-025-00019-9

9. "Subwavelength Photonic Nanojet Processing of Thin Metal Films Using Optical Tweezers",
S. V. Starinskiy, T. Giannakis, N. Chouchoumi, V.S. Sulyaeva, O. Tsilipakos, M. Kandyla,
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10. "Mesoscale modelling of polymer-mediated adhesion: application to tack tests",
A. P. Sgouros, S. Knippenberg, A. Bocahut, P. M. Rauscher, B. Sikora, S. Caputo, H-S Choi, V. Finsy, M. Guillaume and D. N. Theodorou,
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11. "First-principles derived force field for h-BN monolayer nanostructures: Applications to sheets, nanotubes, and nanotori",
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12. "Multiscale computational insights into 5-fluorouracil delivery via zeolite imidazole frameworks (ZIFs)",
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13. "Assembly of Face Decorated Cuboidal Cages into Ultraporous Structures with Hierarchical Porosity: Accessing MOFs with the Awaited red-a Topology",
K. G. Froudas, C. Tsangarakis, T. Montagnon, C. Livas, E. Klontzas, G. E. Froudakis, C. Tampaxis, G. Charalambopoulou, T. A. Steriotis, P. N. Trikalitis, *J. Am. Chem. Soc*. **2025**, *147*, 52, 48180.
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17. "Interfacial interactions between DNA and polysaccharide-coated magnetic nanoparticles: Insight from simulations and experiments", M. Psarrou, M. Vamvakaki, K. Karatasos, and A. N. Rissanou, *Colloids and Surfaces B: Biointerfaces*, **2025**, *246*, 114386. DOI: 10.1016/j.colsurfb.2024.114386

18. "Employing Molecular Dynamics Simulations to Explore the Behavior of Diphenylalanine Dipeptides in Graphene-Based Nanocomposite Systems", E. Markopoulou, P. Nikolakis, G. Savvakis and A. N. Rissanou, *Inorganics*, **2025**, *13 (3)*, 92. DOI: 10.3390/inorganics13030092

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A. Androutsopoulos, D. Tzeli,
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75. "Xanthan-based nanocomplexes: modulating colloidal properties, model compound encapsulation and mucoadhesion via diethylaminoethyl dextran",
I. Pispas, E. Pavlova, M. Slouf, A. Papagiannopoulos,
Int. J. Biol. Macromol. **2025**, *329*, 147766.
DOI: 10.1016/j.ijbiomac.2025.147766

76. "Viscoelastic profile of exopolysaccharides produced from *Schizophyllum commune* in bioreactor cultures utilizing brewer's spent grain: A sustainable bioprocess",
S. Pilafidis, E. Tsouko, P. Diamantopoulou, K. Gkatzionis, D. Sarris, A. Papagiannopoulos,
Int. J. Biol. Macromol. **2025**, *323*, 147004.
DOI: 10.1016/j.ijbiomac.2025.147004

77. "Complexation and Thermal Stabilization of Protein–Polyelectrolyte Systems via Experiments and Molecular Simulations: The Poly(acrylic acid)/Lysozyme Case",
S. N. Tegopoulos, S. Ektirici, V. Harmandaris, A. Kyritsis, A. N. Rissanou, A. Papagiannopoulos,
Polymers **2025**, *17,* 2125.
DOI: 10.3390/polym17152125

78. "Kinetics of hydrogen isotope exchange in kaolinite and the prediction of δD signature retention over geological time",
A. Derkowski, A. Szreter, E. Siranidi, G.D. Chryssikos,
Geochimica et Cosmochimica Acta, **2025**, *388*, 154.
DOI: 10.1016/j.gca.2024.09.033

79. "Detection and Selective Sorption of Copper Ions by a COF-Modified Melamine Sponge",
P. Bika, N. Ioannidis, P. Tsipas, S. Papagiannis, M-A. Gatou, E. A Pavlatou, A. G. Karydas, T. Stergiopoulos, P. Dallas,
ACS Omega **2025**, *10*, 21755.
DOI: 10.1021/acsomega.5c01393

80. "Effects of ligand coordination on Ag_8SnS_6 as a photoabsorber for thin film solar cells".
P.Dallas, V.K Tzitzios, L. Givalou, P. Tsipas, G. Basina, E. Sakellis, N. Boukos, T. Stergiopoulos,
J.Mater.Chem.C. **2025**, *13*, 7996-8005.
DOI: 10.1039/D5TC00397K

81. "Raman Study of the Slobodka Ordinary Chondrite",
M. Simopoulou, I. Baziotis, L. Ferrière, J. Hu, C. Sanchez-Valle, D. Palles, P. N. Gamaletsos, J. Berndt, C. Ma, S. Klemme, and P. D. Asimow,

J. Raman Spectrosc. **2025**, *56*, 1329.
DOI: 10.1002/jrs.6833

82. "The effect of A-cation and X-anion substitutions on the electronic and structural properties of A_2ZrX_6 'defect' perovskite materials: a theoretical DFT study",
C. Kolokytha, N. Lathiotakis, A. Kaltzoglou, I. D. Petsalakis, D. Tzeli,
Materials **2025**, *18*, 726.
DOI: 10.3390/ma18030726

83. "Synthesis, crystal structure and optoelectronic properties of $[(CH_3)_3S]SnBr_3$",
J. Koutsoubogeras, N. Tsoureas, N. S. Tagiara, A. Kaltzoglou,
J. Coord. Chem. **2025**, *78*, 2409.
DOI: 10.1080/00958972.2025.2483880

84. "Assessing the performance of perovskite solar cells under Peltier cooling",
A. Kaltzoglou, E. Christopoulos, D. N. Kossyvakis, N. S. Tagiara, P. Falaras, N. K. Nasikas, E. V. Hristoforou, M. M. Elsenety,
Microelectron. Eng. **2025**, *299*, 112364.
DOI: 10.1016/j.mee.2025.112364

85. "Synthesis, crystal structure and thermoelectric properties of the type-I clathrate $Sn_{38}Sb_8I_8$",
N. Moutzouris, P. Mangelis, N. Kelaidis, N. S. Tagiara, E. Klontzas, I. Koutselas, P. Oikonomopoulos, T. Sfetsas, T. Kyratsi, A. Kaltzoglou,
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DOI: 10.3390/nano15221727

86. "A first-principles investigation of halogen doped diamond and its application to quantum technologies",
P. P. Filippatos, A. Chroneos, N. Kelaidis,
J. Appl. Phys. **2025**, *138(9)*, 094401.
DOI: 10.1063/5.0279139

87. "Impact of doping on sodium self-diffusion in $Na_2Ti_3O_7$",
V. Balaouras, N. Kelaidis, A. Chroneos,
AIP Advances **2025**, *15(9)*, 095312.
DOI: 10.1063/5.0297392

88. "Ionic diffusion in post-lithium batteries",
V. Balaouras, N. Kelaidis, A. Daskalopulu, N. Kuganathan, A. Chroneos,
J. Solid State Electrochem. **2025**, *29*, 3553.
DOI: 10.1007/s10008-025-06278-1

89. "Unveiling the relationship between packing fraction, elastic properties, and ionic conductivity in highly modified alkali-borate glasses",
N. Fang, N. S. Tagiara, M. L. F. Nascimento, C. B. Bragatto,
Solid State Ion. **2025**, *427*, 116899.
DOI: 10.1016/j.ssi.2025.116899

90. "Borate glass structure by vibrational spectroscopy: a review on borate speciation and metal ion-site interactions",
E. I. Kamitsos,
Phys. Chem. Glasses: Eur. J. Glass Sci. Technol. B **2025**, 66(1), 1-38.
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91. "Structural aspects of lead borate glasses prepared in platinum and alumina crucibles",
E. M. Tsekrekas, N. S. Tagiara, R. E. Youngman, E. I. Kamitsos, A. G. Clare,
J. Non-Cryst. Solids **2025**, *659* 123521.
DOI: 10.1016/j.jnoncrysol.2025.123521

92. "A review of the fraction of four-coordinated boron in binary borate glasses",
O. L. G. Alderman, N. S. Tagiara, I. T. Slagle, R. Gabrielsson, P. Boggs, M. Wagner, A. Rossini, S. W. Martin, S. John, L. Rocha, R. M. Wilson, H. Hawbaker, A. C. Hannon, E. I. Kamitsos, S. Feller,
Rep. Prog. Phys. **2025**, *88*, 076501.
DOI: 10.1088/1361-6633/adc69c

93. "Accessing mixed cluster rare-earth MOFs with reduced connectivity via linker expansion and desymmetrization: co-assembly of 6-c and 10-c hexanuclear clusters in RE-stc-MOF-1",
E. Loukopoulos, C. Tsangarakis, K. G. Froudas, M. Vassaki, G. K. Angeli, P. N. Trikalitis,
J. Mater. Chem. C, **2025***,13,* 31.
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94. "Metal Organic Frameworks for Smart Storage and Delivery of Aromatic Volatiles and Essential Oils in Agrifood",
G. K Angeli, M. I Kotzabasaki, C. Maraveas,
Appl. Sci., **2025**, *15(10),* 5479.
DOI: 10.3390/app15105479

95. "Implementation of the Hard-Soft Acid-Base Principle for the Direct Synthesis of Bimetallic Zirconium-Nickel and Hafnium-Nickel Metal-Organic Frameworks with a Polar Pore Environment",
K. G. Froudas, G. K. Angeli, P. N. Trikalitis,
Chem. Eur. J., **2025,** *31*, e202501049.
DOI: 10.1002/chem.202501049

96. "Modulation of Self-Assembly and Enhanced Photocatalytic H_2 Production by Porphyrin-Dipeptide Conjugates",
E. Triantafyllou, E. Nikoloudakis, S. Psilodimitrakopoulos, D. Kavalieros, G. Landrou, E. Stratakis, G. Charalambidis, A. Mitraki, A. G. Coutsolelos,
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DOI: 10.1002/cssc.202501251

97. "Dye-sensitized nanoparticles for efficient solar hydrogen generation",
V. Nikolaou, E. Nikoloudakis, G. Charalambidis, A. G. Coutsolelos,
Chemical Communications, **2025**, *61*, 10086.
DOI: 10.1039/D5CC01971K

98. "Metalloporphyrins in bio-inspired photocatalytic conversions",
A. Charisiadis, V. Nikolaou, E. Nikoloudakis, K. Ladomenou, G. Charalambidis, A. G. Coutsolelos,
Chemical Communications, **2025**, *61*, 4630.
DOI: 10.1039/D4CC06655C

99. "Enhanced Performance of NiO-Based Dye-Sensitized Solar Cells Using a Covalent Porphyrin-C_{60} Dyad",
A. Charisiadis, V. Nikolaou, A. Planchat, Y. Pellegrin, G. Charalambidis, F. Odobel, A. G. Coutsolelos,
ChemPhotoChem, **2025**, 2500075.
DOI: 10.1002/cptc.202500075

100. "Enhancing the Dispersibility and Stability of Graphene in Water Using Porphyrin-Based Compounds",
K. Anagnostou, E. Sotiropoulos, N. Tzoganakis, C. Polyzoidis, K. Rogdakis, A. Katsari, K. Achilleos, E. Triantafyllou, G. Landrou, E. Nikoloudakis, G. Charalambidis, A. G. Coutsolelos, E. Kymakis,
Small Methods, **2025**, 2401431.
DOI: 10.1002/smtd.202401431

101. Wavelength-selective, high-speed, self-powered isotype heterojunction n^+-ZnO/n-Si photodetector with engineered and tunable spectral response",
M. D. Tsanakas, A. Jaros, Y. Fleming, M. Efthimiadou, T. Voss, R. Leturcq, S. Gardelis, M. Kandyla,
Adv. Mater. Technol. **2025**, *10*, 2401740.
DOI: 10.1002/admt.202401740

102. "Nanosecond laser microtexturing of silicon: morphology and wetting properties",
M. M. Vasilev, A. A. Rodionov, T. Giannakis, M. Kandyla, V. V. Terekhov, S. V. Starinskiy,
J. Eng. Thermophys. **2025**, *34*, 480.
DOI: 110.1134/S1810232825700146

103. "Ultrafast All-Optical Control of Multiple Light Degrees of Freedom through Mode Mixing in a Graphene Nanoribbon Metamaterial for Modulation of Electromagnetic Waves",
N. Matthaiakakis, S. Droulias and G.Kakarantzas
ACS Appl. Nano Mater. **2025**, *8*(33), 16499
DOI: 10.1021/acsanm.5c02949

2. Publications in Conference Proceedings

1. "Metasurfaces for engineering the dispersion and mode profile of guided waves",
O. Tsilipakos and T. Koschny,
Proc. ICTON 2025: 25th Anniversary International Conference on Transparent Optical Networks, Barcelona, Spain, **2025**, pp. 1-4.
DOI: 10.1109/ICTON67126.2025.11125414

2. "Assessing passive Q-switching in nanophotonic laser cavities enhanced with 2D materials",
T. Christopoulos, J. Hizanidis, G. Nousios, E. E. Kriezis and O. Tsilipakos,
Proc. ICTON 2025: 25th Anniversary International Conference on Transparent Optical Networks, Barcelona, Spain, **2025**, pp. 1-4.
DOI: 10.1109/ICTON67126.2025.11125043

3. "A strongly resonant silicon square-slot metasurface hosting bound states in the continuum for lasing and nonlinear applications: theoretical studies and experimental verification",
G. Nousios, J. F Algorri, W. Fuscaldo, F. Dell'Olio, Y. Dingk, V. Dmitriev, L. C. Andreani, M. Galli, O. Tsilipakos, E. E. Kriezis, and D. C. Zografopoulos,
Proc. ICTON 2025: 25th Anniversary International Conference on Transparent Optical Networks, Barcelona, Spain, **2025**, pp. 1-4.
DOI: 10.1109/ICTON67126.2025.11125346

4. "Controlling the Mode Profile, Dispersion, and End-Fire Radiation in Parallel-Plate Waveguides with Metasurface Boundaries",
O. Tsilipakos and T. Koschny,
Proc. Metamaterials 2025: Nineteenth International Congress on Artificial Materials for Novel Wave Phenomena, Amsterdam, Netherlands, **2025**, pp. X-336-X-338,
DOI: 10.1109/Metamaterials65622.2025.11174206

5. "Multi-photon lithography on thin films for efficient fabrication of 2D and 2.5D meta-atoms",
S. Papamakarios, G. Zyla, D. Zografopoulos, A. Christoforidou, G. Kenanakis, M. Farsari, and O. Tsilipakos,
Proc. Metamaterials 2025: Nineteenth International Congress on Artificial Materials for Novel Wave Phenomena, Amsterdam, Netherlands, **2025**, pp. X-260-X-262,
DOI: 10.1109/Metamaterials65622.2025.11174211

6. "Design photonic materials and devices inspired by nature",
Ana Almeida, Martin Lopez Garcia, Maria Godinho, Vladimir Katanaev, Nicolina Pop, Maurizio Dabbicco, George A. Mousdis, Ahu Gumrah Parry, Panagiotis E. Keivanidis, Dragan Indjin, Jelena Radovanovic, Paweł Wityk, Dror Fixler, Malgorzata Szczerska*,
Proceedings Volume PC13335, Nanoscale Imaging, Sensing, and Actuation for Biomedical Applications XXII; PC133350N 2025
Event: BiOS, 2025, San Francisco, California, United States
DOI: 10.1117/12.3057730

7. "Efficient integration of quantum emitters in laser written optical channel waveguides in silica",
S. I. Tsintzos, K. Tsimvrakidis, J. C. Gates, O. Buchnev, A. W. Elshaari, V. Zwiller, P. G. R. Smith, and C. Riziotis,
Proc. Conference on Lasers and Electro-Optics/Europe (CLEO/Europe 2025) and European Quantum Electronics Conference (EQEC 2025), 23-27 June 2025, Munich, Germany, Technical Digest Series Optica Publishing Group 2025, paper ck_15_5.
https://opg.optica.org/abstract.cfm?URI=CLEO_Europe-2025-ck_15_5

3. Book Chapters

1. "Many-Body Expansion of systems from Hydrogen bonded systems to Light Nuclear Systems",
D. Tzeli, S. S. Xantheas
Advances in Quantum Chemistry series: A Snapshot of Molecular Electronic Structure Theory and its Applications, Eds. P. E. Hoggan and C. Coletti, Academic Press, **2025**, Chapter 8, *92*, pp.95-120.
DOI: 10.1016/bs.aiq.2025.07.001

4. Books

5. Dissertations

a. PhD theses

1. "Optical metamaterials for advanced wave control",
A. Theodosi,
Member of Supervising Committee: Dr. O. Tsilipakos,
Department of Materials Science and Engineering, University of Crete (06.2025).

2. "Design and theoretical study of graphene-based nanophase materials for environmental, technological and industrial applications",
Emilia Papasouli,
Member of Examination Board: Dr. E. Klontzas,
Department of Chemistry Aristotle University of Thessaloniki, Greece (10.2025).

3. "Structure and Dynamics of Biomacromolecules in the bulk and under Confinement",
Maria-Ioanna Spyridakou,
Member of Examination Board: Dr. A. N. Rissanou,
Department of Physics, University of Ioannina Greece (07.2025).

4. "Molecular Dynamics Simulations of Organic Aerosol Components",
Panagiota Siachouli,
Member of Examination Board: Dr. A. N. Rissanou,
Department of Chemical Engineering, University of Patras Greece (12.2025).

5. “New Photochemical Pathways for the Synthesis of BODIPYs Derivatives Induced by Their Self-Assembly in Aqueous Environments for Photonic Applications”,
   A. Sachou,
   Member of Examination Board: D. Tzeli,
   Department of Chemistry, National and Kapodistrian University of Athens, Greece (01.2025).

6. “Quantum chemical investigation on molecular sensors: from solution to complex environments”,
   R. Cane Sia,
   Member of Examination Board: D. Tzeli,
   Department of Physics, Gdańsk University of Technology, Poland (06.2025).

7. “In silico studies and application of NMR spectroscopy of natural products for the extraction of bioactive substances beneficial to health”,
   V. Vakali,
   Member of Examination Board: D. Tzeli,
   Department of Chemistry, National and Kapodistrian University of Athens, Greece (02.2025).

8. “Studies of peripheral heavy-ion reactions with the MAGNEX spectrometer for the production of neutron-rich isotopes”,
   S. Koulouris,
   Member of Examination Board: D. Tzeli.
   Department of Chemistry, National and Kapodistrian University of Athens, Greece (02.2025).

9. “Formative Analysis via Nuclear Magnetic Resonance of bioactive conjugates and complexes”,
   N. Zoupanou,
   Member of Examination Board: D. Tzeli,
   Department of Chemistry, National and Kapodistrian University of Athens, Greece (04.2025).

10. “Systematic Studies of Heavy-Ion Reactions in the Fermi Energy Domain for the Production of Rare Isotopes”,
    O. Fasoula,
    Member of Examination Board: D. Tzeli,
    Department of Chemistry, National and Kapodistrian University of Athens, Greece (06.2025).

11. “In silico studies of neurodegenerative disease targets”,
    G. Mavroidi,
    Member of Examination Board: D. Tzeli,
    Department of Chemistry, National and Kapodistrian University of Athens, Greece (07.2025).

12. “Computational Approaches to Functional Solid-State Materials”,
J. M. Gallmetzer,
Member of Examination Board: D. Tzeli,
Institute of General, Inorganic and Theoretical Chemistry, Leopold-Franzens-University of Innsbruck, Austria (11.2025).

13. “Chemically modified transition metal dichalcogenides with photoactive molecules”
E. Nikoli,
Supervisor & Member of Examination Board: Dr. N. Tagmatarchis,
Department of Chemistry, University of Ioannina, Greece (05.2025).

14. “The palygorskite/smectite clay deposits of W. Macedonia. Characterization of clay minerals and industrial applications”
K.Vythoulkas,
Member of Examination Board: G. D. Chryssikos,
Department of Geology. University of Athens, Greece (06.2025).

15. “Study of quality and authenticity of Greek honeys derived from different plants and bee breeds based on their phenolic content”
D. Ntakoulas,
Member of Examination Board: Dr. G. A. Mousdis,
Department of Chemistry, National and Kapodistrian University of Athens (01.2025).

16. “Photonics for technological and biomedical applications”,
T. Giannakis,
Supervisor: Dr. M. Kandyla,
Department of Physics, National and Kapodistrian University of Athens (11.2025).

b. <u>MSc theses</u>

1. “Electronic, optical and vibrational properties of halogen perovskites for photovoltaic applications”,
P. M. Leventis,
Co-Supervisor: Dr. N. Lathiotakis,
Department of Chemistry, University of Patras (12.2025).

2. "Computational Study of Electronic structure of the Octreotide and Lanreotide Molecules",
E. Dimoulia,
Supervisor: D. Tzeli,
Department of Chemistry, National and Kapodistrian University of Athens (02.2025).

3. “Computational Study of: (a) Hydration of Alkali Ions (b) Organic Reaction Mechanisms",

A. P. Karantoni,
Supervisor: D. Tzeli,
Department of Chemistry, National and Kapodistrian University of Athens (06.2025).

4. "Computational Methods in Quantum Chemistry: (a) MRCISD(+Q) study of the electronic structure and bonding of the ground and excited states of diatomic molecules, MoLi & MoBe (b) DFT study of the mechanism of electrolytic production of H2 using heteroleptic diselenolane Ni complexes",
C. Demetriou,
Supervisor: D. Tzeli,
Department of Chemistry, National and Kapodistrian University of Athens (06.2025).

5. "Computational Study of the electronic structure of FeSi, CoSi and NiSi",
N. Zarkantzas,
Supervisor: D. Tzeli,
Department of Chemistry, National and Kapodistrian University of Athens (10.2025).

6. “In silico analysis of bioactive components of plants of the genus Achillea found in Greece”,
A. Kokkali,
Three-member examination committee: D. Tzeli,
Department of Chemistry, National and Kapodistrian University of Athens (02.2025).

7. "Probing Multinucleon Transfer in ^{40}Ar + ^{64}Ni Collisions at 15 MeV/nucleon»,
K. Gkatzogias,
Three-member examination committee: D. Tzeli,
Department of Chemistry, National and Kapodistrian University of Athens (02.2025).

8. “Design, Synthesis, and Study of Hybrid Perovskites through Electronic and Vibrational Spectroscopy and Nuclear Magnetic Resonance (NMR)",
E. B. Apostolou,
Three-member examination committee: G. Mousdis, D. Tzeli,
Department of Chemistry, National and Kapodistrian University of Athens (06.2025).

9. "Studies of molecular binding of drugs that act on Myasthenia Gravis ",
E. Masios,
Three-member examination committee: D. Tzeli,
Department of Chemistry, National and Kapodistrian University of Athens (06.2025).

10. "Study of projectile fragment distributions from peripheral collisions of ^{64}Ni at 25 MeV/nucleon on ^{64}Ni, ^{124}Sn and ^{208}Pb",
E. Kontogianni,

Three-member examination committee: D. Tzeli,
Department of Chemistry, National and Kapodistrian University of Athens (06.2025).

11. “Hyperbranched random amphiphilic H-[P(DMAEMA-co-BzMA)] copolymers: Synthesis, characterization, self-assembly in aqueous media and encapsulation of drug”,
F. Ginosati,
Supervisor: Dr. S. Pispas,
Department of Chemistry, National and Kapodistrian University of Athens (02.2025).

12. “Design, Synthesis and Study of Hybrid Perovskites via Electronic and Vibrational Spectroscopy and Nuclear Magnetic Resonance (NMR)”,
E. Apostolou,
Supervisor: Dr. G. A. Mousdis,
Department of Chemistry, National and Kapodistrian University of Athens (06.2025).

13. “Synthesis and Characterization of New Bridging Ligands and Metal-Organic Frameworks”,
V. Tsonis,
Member of the evaluation committee Dr. G. Angeli,
Department of Chemistry, National and Kapodistrian University of Athens (02.2025).

14. “Combination of porphyrins with nanomaterials involved in photocatalytic transformations”,
A. Katsari,
Member of the evaluation committee: Dr. G. Charalambidis,
Department of Chemistry, University of Crete, Greece (10.2025).

15. “Study of New Hybrid Systems with Nitrogen-dopped Carbon Dots (NC-Dots) for Photocatalytic Hydrogen Production”,
F. Chatzipetri,
Member of the evaluation committee: Dr. G. Charalambidis,
Department of Chemistry, University of Crete, Greece (10.2025).

c. <u>Diploma theses</u>

1. "Many Body Expansion of LinHn, n=1-6 molecular systems",
F. Drakopoulos,
Supervisor: D. Tzeli,
Department of Chemistry, National and Kapodistrian University of Athens (07.2025).

2. “Preparation and study of mechanical properties of hydrogels based on κ-carrageenan polysaccharide”,

G. Tsoutsikou,
Supervisor: A. Papagiannopoulos,
School of Applied Mathematical & Physical Sciences, National Technical University of Athens (02.2025).

3. “Development of various $FAPbBr_3$ perovskite morphologies and characterization by pulsed and continuous wave Lasers”
Panagiotis Christodoulou,
Supervisor: C. Riziotis
School of Applied Mathematical and Physical Sciences, National Technical University of Athens (11.2025)

4. “Development of optoelectronic components and devices”,
E. Kalli,
Supervisors: Dr. M. Kandyla and Assoc. Prof. S. Gardelis,
Department of Physics, National and Kapodistrian University of Athens (03.2025).

5. d. <u>Internships</u>

1. “Theoretical study of gas storage in nanomaterials”,
Dionisios Raptis,
Supervisor: Dr. Emmanouil Klontzas,
Department of Chemistry, University of Crete, Greece (01.2025-04.2025).

2. “Theoretical study of nanomaterials using electronic structure methods”,
G. Tsekouras,
Supervisor: Dr. N. N. Lathiotakis,
Department of Materials Science and Engineering, University of Ioannina, Greece (07-08.2025).

3. “Molecular Simulations of Nanostructured Systems Based on Polymeric and/or Biological Molecules”,
E. Gavrilopoulos,
Supervisor: Dr. A. N. Rissanou,
Department of Physics, School of Science, National and Kapodistrian University of Athens, Greece (07-09.2025).

4. Organic Luminescent Cocrystals Based on Benzimidazole: Crystallization, Characterization of physical properties and Computational Study".
C. Kolokytha, PhD Candidate
COST ACTION: Visit at SMS Lab, University of Rouen Normandy, Rouen, France, (Host: Prof. Rietvelds’ group)
(23/06/2025 - 11/07/2025).

5. "Computational Characterization of Chromophore Displacement in Cucurbituril-Based Chemosensors: Structural, Spectroscopic, and Interaction Analysis",
M. Karatzia, PhD Candidate from Prof. S. Charalambous Hayes' group, Department of Chemistry, University of Cyprus, Cyprus.
COST ACTION: (04/07/2025 - 08/08/2025).

6. "Synthesis of star polyelectrolytes by RAFT polymerization",
   S. Mesíková,
   Supervisor: Dr. S. Pispas,
   Department of Physical and Macromolecular Chemistry, Charles University in Prague, Czech Republic (04.2025).

7. "Study of post-synthetic modification of rare earth-based metal-organic frameworks",
   L. Salma,
   Supervisor: Dr. G. Angeli,
   Department of Chemistry, University of Ioannina, Greece (08.2025).

8. "Synthesis and Characterization of Functional Porous Frameworks for Controlled Release of Essential Oils",
   A. A. Terzopoulou,
   Supervisor: Dr. G. Angeli,
   School of Chemistry, Democritus University of Thrace (Kavala), Greece (09.2025).

9. "Study of MOFs building blocks based on rare earths and investigation of their postsynthetic modification techniques",
   I. Palieraki,
   Supervisor: Dr. G. Angeli & Dr. E. Klontzas,
   Department of Chemistry, University of Crete (Heraklion), Greece (10.2025).

10. "Synthesis and Characterization of Compounds with Application in Photocatalysis",
    F. Landrou,
    Supervisor: Dr. G. Charalambidis,
    School of Chemical Engineering, National Technical University of Athens, Greece (07.2025).

6. Conference Presentations

1. "3D-Printed Metamaterial Structures for Electromagnetically Induced Transparency at THz Frequencies",
   S. Papamakarios*, O. Tsilipakos, I. Katsantonis, A. Koulouklidis, M. Manousidaki, G. Zyla, C. Daskalaki, S. Tzortzakis, M. Kafesaki, M. Farsari,
   Lasers in Manufacturing (LiM) Conference 2025, June 23-26, 2025, Munich, Germany (oral).

2. "Multi-photon lithography for advanced micro-optics and large-area metasurfaces",
   G. Zyla*, D. Ladika, V. Melissinaki, M. Stavrou, I. Kassamakov, Savvas Papamakarios, D. Zografopoulos, A. Christoforidou, G. Kenanakis, O. Tsilipakos, M. Malinauskas, M. Farsari,
   META 2025: 15th International Conference on Metamaterials, Photonic Crystals and Plasmonics, Malaga, Spain, 22-25 July, 2025 (invited oral).

3. “Controlling the mode profile and dispersion in waveguides with metasurface boundaries”,
   O. Tsilipakos*,
   Micro Nano & Chips Tech 2025: 12th International Conference on Micro-Nanoelectronics, Nanotechnology and MEMS, 6-9 November 2025, Chania, Greece (poster).

4. “Photonic metasurfaces enabled by multiphoton lithography: Resonance engineering and wavefront manipulation”,
   O. Tsilipakos*, G. Zyla, S. Papamakarios, G. Perrakis, I. Katsantonis, D. C. Zografopoulos, A. Koulouklidis, S. Tzortzakis, M. Kafesaki, M. Farsari,
   Micro Nano & Chips Tech 2025: 12th International Conference on Micro-Nanoelectronics, Nanotechnology and MEMS, 6-9 November 2025, Chania, Greece (oral).

5. “Developing Atomistic Force Fields from First-Principles Calculations: Classical and Machine-learning frameworks”,
   P. Sgouros*,
   Computational Materials Science 2025, Online Workshop, December 13-14, 2025 (oral).

6. “Simulation studies of volatile organic compounds adsorption and separation by Metal-Organic Framework MIL-101(Cr)”,
   E. Klontzas*, I. Skarmoutsos, S. Dasguptac, C. Boissiered, N. Steunou,
   Euromof 2025, Heraklion, Greece, September 21-24, 2025 (poster).

7. “Theoretical Insights into Lead-free Zirconium Halide Defect Perovskites and Carbon-doped Cu_2O for Optoelectronic Applications”,
   N. N. Lathiotakis*, C. Kolokytha, M. Zervos, D. Tzeli,
   CHEMEET, 4th International Chemistry Conference, National Centre of Scientific Research "Demokritos", Athens Greece, September 29-October 1, 2025 (invited talk).

8. “Theoretical design and study of Porous Carbon Nitride Fullerenes: Introducing a Novel Family of Cage Molecules”,
   Z. G. Fthenakis, N. N. Lathiotakis*,
   IOCM 2025, The 4th International Online Conference on Materials, November 3-6, 2025 (oral).

9. “A Computational Approach to the Structural and Optoelectronic Properties of Advanced Materials Using DFT”,
   C. Kolokytha*, N. N. Lathiotakis, D. Tzeli,
   4th Symbosium of Graduate Students, Chemistry Department, National and Kapodistrian University of Athens, Athens, Greece, May 28-29, 2025 (oral).

10. “Exploring Advanced Materials: A DFT-Based Study of Structural and Optoelectronic Properties”,
    C. Kolokytha*, N. N. Lathiotakis, D. Tzeli,

1st student school on the solid state of organic mate-rials, COST action CA22107 BEST-CSP, University of Rouen, Normandy, May 12-16, 2025 (oral).

11. "A combined computational and experimental study on the origins of polyelectrolyte-protein association",
M. Arnittali, S. N. Tegopoulos, A. Kyritsis, V. Harmandaris, A. Papagiannopoulos and A. N. Rissanou*,
European Polymer Federation (EPF), Groningen, Netherlands, June 22-27, 2025 (oral).

12. "Unraveling the mechanisms of complexation and thermal stabilization of a model protein/polyelectrolyte system",
S. Ektirici, V. Harmandaris, A. N. Rissanou*,
3rd International Conference on Nanotechnologies & Bionanoscience, Heraklion Crete, Greece, September 08-12, 2025 (oral).

13. "Understanding Poly(acrylic acid)-Lysozyme Association via Molecular Simulations across Different Conditions",
S. Ektirici, V. Harmandaris, A. N. Rissanou*,
9th International Soft Matter Conference, Chania Crete, Greece, September 29 – October 03, 2025 (oral).

14. "Computer-aided design of biomolecular nanocarriers for drug delivery applications",
A. N. Rissanou*,
9th International Soft Matter Conference, Patras, Greece, December 03-06, 2025 (invited oral).

15. "Computational-Experimental Synergy in Smart Drug Delivery System Design",
P. Divanach, A. Mitraki, V. Harmandaris, A. N. Rissanou*,
9th International Soft Matter Conference, Patras, Greece, December 03-06, 2025 (poster).

16. "Theoretical study on a ferrocene-naphthalimide derivative that acts as a Molecular Logic Gate",
C. E. Tzeliou,* D. Tzeli,
E-WISPOC, 18th European Winter School on Physical Organic Chemistry, Chemistry of Confined Spaces, Bressanone, Italy, 2-7/2/2025 (poster).

17. "Synthesis of 1h-pyrazole-, 1h-1,2,3-triazole- and 2h-1,2,3-triazole-based n,n′-diaryl ureas and theoretical study as potential cb-1 receptor inhibitors",
T. Boukovinas,* E. Tsemperlidou, N. Georgiou, D. Tzeli, G. Varvounis, N. Karousis,
20th Hellenic Symposium on Medicinal Chemistry, University of Ioannina, Ioannina, Greece, 2-5/4/2025 (poster).

18. "Tuning the absorption and emission spectra of Nickel and Zinc Complexes of N-confused Tetraphenylporphyrin",
E. Papamichalis, I. D. Petsalakis, D. Tzeli*,

2nd Global Action Meeting - LUCES COST Action CA22131, Zadar, Croatia, 28-29/4/2025 (oral).

19. "DFT and Time-Dependent DFT studies on 7-Hydroxy-4-substituted coumarins: efficient photoacids for acetalization reactions",
E. A. Routsi,* M. A. Theodoropoulou, C. G. Kokotos, D. Tzeli, G. Kokotos,
4th Symposium of Graduate Students of the Chemistry Department National and Kapodistrian University of Athens, Athens, Greece, 28-29/5/2025 (oral).

20. "Photophysical Properties of Donor–Acceptor (D-A) BODIPY Fluorescent Dyes",
G. Ampeliatis,* Demeter Tzeli,
4th Symposium of Graduate Students of the Chemistry Department
National and Kapodistrian University of Athens, Athens, Greece, 28-29/5/2025 (poster).

21. "Encapsulation in Chalcogen-Bonded vs Hydrogen-Bonded Cages",
D. Tzeli* (organizing committee),
"Aqueous Systems: The Frontier and Beyond", Kalamata, Greece 16-21/6/2025 (oral).

22. "Vertical vs Adiabatic Singlet-Triplet Energy Gap as a Molecular Descriptor",
K. P. Zois, A. A. Danopoulos, D. Tzeli*,
13th Triennial Congress of the World Association of Theoretical and Computational Chemists (WATOC 2025, Oslo, Norway, 22-27/6, 2025 (poster).

23. "Computational Investigation of photophysical processes of chemosensors",
D. Tzeli, E. Papamichalis, C. E. Tzeliou*,
2nd workshop on benchmarking solid state properties, University of Bologna, Via Zamboni 33, 40126 Bologna, Italy, Bologna, Italy (oral).

24. "Organic Luminescent Cocrystal Based on Benzimidazole: Crystallization, Characterization of Physical Properties and Computational Study",
C. Kolokytha,* D. Tzeli, N. N. Lathiotakis, R. Mani, I. B. Rietveld,
2nd workshop on benchmarking solid state properties, University of Bologna, Via Zamboni 33, 40126 Bologna, Italy, Bologna, Italy (poster).

25. "First-principles study of carbon-doped Cu_2O and lead-free A_2ZrX_6 defect perovskites for optoelectronic applications".
N. N. Lathiotakis,* C. Kolokytha, D. Tzeli, M. Zervos,
10th International Symposium on Transparent Conductive Materials & 14th International Symposium on Transparent Oxide and Related Materials for Electronics and Optics (TCM-TOEO 2025), Rethymno, Crete, Greece, 19-13/10/2025 (oral).

26. "A First Principles Investigation of C-doping of Cu2O",
C. Kolokytha,* D. Tzeli, M. Zervos and N. Lathiotakis,
Micro Nano & Chips Tech 2025, 12th International Conference on Micro-Nanoelectronics, Nanotechnology and MEMS, Chania, Greece, 6-9/11/2025 (oral).

27. "Linear, Neutral Copper(I) Complexes with 4-Amido-Imidazol-2-ylidenes: Synthesis, Characterization, Photophysical Properties and Electronic Structures", I. Ligielli,* A. Radojcic, K. P. Zois, D. Tzeli, P. Braunstein, L. Karmazin, A. Steffen, A. A. Danopoulos,
3rd Panhellenic Symposium on Inorganic Chemistry, University of Ioannina, Ioannina, Greece, 7-9/11/2025 (poster).

28. "Resonance Raman mapping of charge-carrier species in electrochemically doped organic photovoltaic materials",
M. Karatzia,* E. Papamichalis, D. Tzeli, S. C. Hayes,
1st Pankyprio Chemistry Conference, Nicosia, Cyprus, 19-21/11/2025 (poster).

29. "Exploring structural and electronic properties of materials via DFT methodology",
D. Tzeli*,
HSSTCM- Hellenic Society for the Science and Technology of Condensed Matter, CMS2025, Athens, Greece, 13-14/12/2025 (oral).

30. "Chemical modification of transition metal dichalcogenides with photoactive components",
N. Tagmatarchis,
HeteroNanoCarb-2024, Benasque (Aragon), Spain, January 13-17, 2025 (invited talk).

31. "Characterisation of host-guest interaction of stabilized $C_{59}N$⊂[10]CPP complex radicals",
Y. Tanuma*, B. Anezo, G. Kladnik, M. van Midden Mavric, H. A. Wegner, N. Tagmatarchis, C. Ewels, D. Cvetko, D. Arcon,
HeteroNanoCarb-2024, Benasque (Aragon), Spain, January 13-17, 2025 (poster).

32. "Electrochemical hydrogen peroxide production by metal-free functionalized graphene featuring electrostatically associated polyacrylate chains",
E. Nikoli*, I. K. Sideri, M.-L. Vorvila, M. Kafetzi, S. Pispas, N. Tagmatarchis,
International Winterschool on Electronic Properties of Novel Materials – IWEPNM, Kirchberg, Austria, March 8-14, 2025 (poster).

33. "Engineering of advanced nanocarbons for MOF post-synthetic modification",
I. K. Sideri*, G. Basina, G. K. Angeli, A. Kumar, C. Serre, G. Muchaham, N. Tagmatarchis,
International Winterschool on Electronic Properties of Novel Materials – IWEPNM, Kirchberg, Austria, March 8-14, 2025 (poster).

34. "Carbon dots for the enhancement of hydrogen evolution reaction (HER) activity",
M. A. Alvarez-Sanchez*, A. Kagkoura, N. Tagmatarchis, W. K. Maser, A. M. Benito,
247th ECS Meeting, Montreal, Canada, May 18-22, 2025 (poster).

35. "Functionalized MoS_2 electrostatically associated with photoactive chromophores",
E. Nikoli*, M. Tsigkou, I. K. Sideri, M. Kardaras, H. J. Ojeda Galvan, M. Quintana, N. Tagmatarchis,
The 25th International Conference on the Science and Applications of Nanotubes and Low-Dimensional Materials – NT'25, Kyoto, Japan, June 15-20, 2025 (poster).

36. "Terpyridine-functionalized single-walled carbon nanotubes as selective electrocatalyst",
I. K. Sideri*, N. Tagmatarchis,
The 25th International Conference on the Science and Applications of Nanotubes and Low-Dimensional Materials – NT'25, Kyoto, Japan, June 15-20, 2025 (poster).

37. "High density fullerene spin networks: $C_{59}N$ on surface encapsulation in [10]CPP corals",
B. Anezo*, Y. Tanuma, G. Kladnik, L. Schio, G. Badvek, M. Van Midden Mavric, E. Zupanic, I. K. Sideri, N. Tagmatarchis, R. Canton Vitoria, J. Volkmann, H. A. Wegner, A. Goldoni, A. Morgante, C. Ewels, L. Floreano, D. Arcon, D. Cvetcko,
The World Conference on Carbon – Carbon 2025, Saint-Malo, Brittany, France, June 29 - July 4, 2025 (oral).

38. "Ni@Pd core-shell nanoparticles immobilized onto MoS_2 nanosheets for electrocatalytic oxygen reduction",
M. P. Minadakis*, Y. Sato, K. Suenaga, N. Tagmatarchis,
Carbon Nanoscience and Nanotechnology-NanoteC25*,* Vienna, Austria, August 26-29, 2025 (oral).

39. "Functionalized nanocarbons for MOF post-synthetic modification",
I. K. Sideri*, G. Basina, F. K. Angeli, A. Kumar, G. Mouchaham, C. Serre, N. Tagmatarchis,
6th European Conference on Metal Organic Frameworks and Porous Polymers – EUROMOF-2025, Heraklion, Crete, Greece, September 21-24, 2025 (poster).

40. "Zr(IV) based metal organic frameworks functionalization with carbon nanostructures for energy related applications"
G. K. Angeli*, G. Basina, I. K. Sideri, C. Tampaxis, G. Charalambidis, N. Tagmatarchis,
6th European Conference on Metal Organic Frameworks and Porous Polymers – EUROMOF-2025, Heraklion, Crete, Greece, September 21-24, 2025 (poster).

41. "Synthesis and self-assembly of branched copolymer systems",
A.M. Gerardos, S. Pispas*,
15th Hellenic Polymer Society International Conference, Patras, Greece, December 3-6, 2025 (invited lecture).

42. "Densely grafted double hydrophilic copolymers for biomedical applications",
A. Pipertzis*, A. Chroni, A. Forys, B. Trzebicka, S. Pispas, J. Swenson,
15th Hellenic Polymer Society International Conference, Patras, Greece, December 3-6, 2025 (poster).

43. “P(DIPAEMA-co-DMAEMA-co-OEGMA) stimuli-responsive linear terpolymers and their nano-assemblies encapsulating curcumin and quercetin”,
M. A. Pantelaiou*, S. Pispas,
15th Hellenic Polymer Society International Conference, Patras, Greece, December 3-6, 2025 (poster).

44. “A macromolecular design platform for self-healable, mechanically robust solid polymer electrolytes for next generation lithium batteries”,
E. Dramountani*, A. D. Nega, S. Pispas, E. Glynos,
15th Hellenic Polymer Society International Conference, Patras, Greece, December 3-6, 2025 (poster).

45. “Development of green biodegradable polysaccharide-super hydrophilic polymer grafts as antifouling coatings”,
T. Sentoukas*, A Utrata-Wesołek, A. Marcinkowski, M. Kowalczuk, A. Papagiannopoulos, S. Pispas, B. Trzebicka,
21st National Symposium POLYMERS 2025, Kazanlak, Bulgaria, June 29-July 02, 2025 (poster).

46. “3D-printed microfluidic vs conventional fabrication of P(DMAEMA-co-SMA)-based lipopolyplexes: A comparative study of stability, morphology and cytotoxicity”,
I. Tsichlis*, A. Vardaxi, K. Rahali, A. Foryś, B. Trzebicka, S. Pispas, D. Douroumis, C. Demetzos,
AAPS 2025 PHarmSCi 360, San Antonio, USA, November 9-12, 2025 (poster).

47. “Smart graft copolymers based on polysaccharides and poly(N-isopropylacrylamide”,
S. Vasiliu, S. Racovita, D. F. Loghin, M. M. Bazarghideanu, S. Pispas, M. Mihai*,
EPF25 European Polymer Congress, Groningen, The Netherlands, June 22-27, 2025 (invited lecture).

48. “Effect of DNA Length on the Formation of Novel Chitosan-graft-Poly(N-isopropylacrylamide) Based Polyplexes”,
M. Karayianni, E.-D.a Lotos, M. Mihai*, S. Pispas,
EPF25 European Polymer Congress, Groningen, The Netherlands, June 22-27, 2025 (oral).

49. Exploring the performance of hybrid lipid/copolymer nanocarriers as potential anticancer therapeutics: A design road map”,
E. Triantafyllopoulou*, G. Valsami, S. Pispas, N. Pippa,
“Joint EUFEPS - ÖPHG meeting, Vienna 2025: Pharmaceutical Sciences in the Heart of Europe”, Vienna, Austria, February 19-21, 2025 (poster).

50. “Hybrid nanoparticles and lyophilized powders for possible nose-to-brain delivery of ropinirole hydrochloride”,
E.-M. Saitani*, P. Papakyriakopoulou, S. Kikionis, N. Pippa, S. Pispas, G. Valsami,

"Joint EUFEPS - ÖPHG meeting, Vienna 2025: Pharmaceutical Sciences in the Heart of Europe", Vienna, Austria, February 19-21, 2025 (oral).

51. "Polymeric nanomicelles encapsulating aggregation-induced emission (AIE) natural molecules",
M. A. Pantelaiou*, D. Vagenas, S. Pispas,
The 5th International Online Conference on Nanomaterials (IOCN 2025), September 22-24, 2025 (poster).

52. "pH and thermoresponsive amphiphilic terpolymers: Synthesis and formulation of drug-loaded nanomicelles",
M. A. Pantelaiou*, S. Pispas,
The 3rd International Online Conference on Polymer Science, November 19-21, 2025 (oral).

53. "Effects of polymer architecture on the physicochemical properties of gene delivery systems based on methacrylate copolymers".
R. Stancheva*, E. Haladjova, A. M. Gerardos, S. Pispas, S. Rangelov,
"Young Scientists in the World of Polymers" 2025, Sofia, Bulgaria, March 4, 2025 (poster).

54. "Interaction studies of chitosan-g-PNIPAM multiresponsive chains with a model protein",
F. Bucatariu*, M.-M. Zaharia, L.-M. Petrila, M. Mihai, S. Pispas,
International Conference Progress in Organic and Macromolecular Compounds, 30th Edition, Iasi, Romania, September 23-26, 2025 (oral).

55. "Eco-friendly synthesis of chitosan-g-PNIPAM/AuNPs thermoresponsive nanocomposites",
M.-M. Zaharia*, M.-M. Bazarghideanu, A.-P. Moraru, F. Bucatariu, M. Mihai S. Pispas,
International Conference Progress in Organic and Macromolecular Compounds, 30th Edition, Iasi, Romania, September 23-26, 2025 (poster).

56. "Chitosan-g-poly(N-isopropylacrylamide) based polyplexes: effect of DNA length",
M. Karayianni*, E.-D. Lotos, M. Mihai, S. Pispas,
International Conference Progress in Organic and Macromolecular Compounds, 30th Edition, Iasi, Romania, September 23-26, 2025 (poster).

57. "In situ AuNPs synthesis using as stabilizer/mediator amylopectin-g-poly(acrylic acid)",
M.-M. Bazarghideanu*, M.-M. Zaharia, A.-P. Moraru, F. Bucatariu, S. Pispas, M. Mihai,
International Conference Progress in Organic and Macromolecular Compounds, 30th Edition, Iasi, Romania, September 23-26, 2025 (poster).

58. Natural–synthetic hybrid nanostructures by interaction of chitosan with carboxylate ended PNIPAM",

E.-D. Lotos*, M. Karayianni, M. Mihai, S. Pispas,
International Conference Progress in Organic and Macromolecular Compounds, 30th Edition, Iasi, Romania, September 23-26, 2025 (poster).

59. "Hybrid materials based on graft copolymers containing potato starch and poly(acrylic acid)",
D.-F. Loghin*, S. Racovita, S. Vasiliu, M. I. Avadanei, A.-M. Macsim, M.-M. Bazarghideanu, S. Pispas, M. Mihai,
International Conference Progress in Organic and Macromolecular Compounds, 30th Edition, Iasi, Romania, September 23-26, 2025 (poster).

60. "Enzyme/polysaccharide nanoassemblies: preparation, characterisation and potential applications",
L.-M. Petrila*, M. Karayianni, T.-A. Ciobanu, T. Vasiliu, S. Pispas, M. Mihai,
International Conference Progress in Organic and Macromolecular Compounds, 30th Edition, Iasi, Romania, September 23-26, 2025 (poster).

61. "New thermoresponsive composites containing chitosan-g-PNIPAM and in situ formed gold nanoparticles",
M.-M. Zaharia*, M.-M. Bazarghideanu, A.-P. Moraru, F. Bucatariu, M. Mihai, S. Pispas,
International Conference Progress in Organic and Macromolecular Compounds, 30th Edition, Iasi, Romania, September 23-26, 2025 (oral).

62. "Synthesis and characterization of pH-responsive graft copolymer based on potato starch and poly (acrylic acid)",
D. F. Loghin*, S. Racovita, S. Vasiliu, M. I. Avadanei, A.-M. Macsim, M.-M. Bazarghideanu, S. Pispas, M. Mihai,
International Conference Progress in Organic and Macromolecular Compounds, 30th Edition, Iasi, Romania, September 23-26, 2025 (oral).

63. "New polysaccharide grafting method pairing chitosan with PNIPAM bearing carboxyl end group",
E.-D. Lotos*, M. Karayianni, M. Mihai, S. Pispas,
International Conference Progress in Organic and Macromolecular Compounds, 30th Edition, Iasi, Romania, September 23-26, 2025 (oral).

64. "Thermoresponsive nanoparticles for gene delivery",
I. Tsichlis*, A. Vardaxi, K. Rahali, S. Pispas, D. Douroumis, C. Demetzos,
MEDICTA 2025, Thessaloniki, Greece, July 9-11, 2025 (oral).

65. "Calcium-Mediated DNA Encapsulation in Cardiolipin Liposomes: Physicochemical Characterization and Thermal Analysis,
I. Tsichlis*, S. Pispas, D. Douroumis, C. Demetzos,
MEDICTA 2025, Thessaloniki, Greece, July 9-11, 2025 (poster).

66. "From Heating to Healing: Thermal analysis in rational design of a hybrid lipid/copolymer nanocarrier",
E. Triantafyllopoulou*, D. R. Perinelli, G. Bonacucina, G. Valsami, S. Pispas, N.

Pippa,
MEDICTA 2025, Thessaloniki, Greece, July 9-11, 2025 (oral).

67. "Supramolecular nanostructures of aggregation-induced emission (AIE) dye and amphiphilic terpolymers",
M. A. Pantelaiou*, G. Rotas, S. Pispas,
Applications of Chemistry in Nanosciences and Biomaterials Engineering NanoBioMat 2025 – Winter Edition Online, November 26-28, 2025 (poster).

68. "Microfluidic-mediated development of lipopolyplexes for gene delivery",
I. Tsichlis*, A. Vardaxi, K. Rahali, A. Foryś, B. Trzebicka, S. Pispas, D. Douroumis, C. Demetzos,
Nanomed Europe 2025, NME25, Barcelona, Spain, May 27-30, 2025 (poster).

69. "Preparation, physicochemical characterization and in vitro evaluation of hybrid lipid-polymer nanoparticles for DNA delivery,
I. Tsichlis*, T. Gomez, A. Vardaxi, S. Pispas, S. Richardson, D. Douroumis, C. Demetzos,
Nanomed Europe 2025, NME25, Barcelona, Spain, May 27-30, 2025 (poster).

70. "Amphiphilic random copolymers as nanocarriers of anticancer molecules with Aggregation-Induced Emission (AIE) properties relevant to bioimaging",
M. A. Pantelaiou*, D. Vagenas, S. Pispas*,
13th Hellenic Society of Biomaterials Conference, Ioannina, Greece, March 28-29, 2025 (poster).

71. "Aggregation-induced emission of anticancer natural substances: nanoformulation with random copolymers and physicochemical studies",
M. A. Pantelaiou*, D. Vagenas, S. Pispas,
2nd Panhellenic Conference of Natural Sciences in Health: Innovations and Perspectives and 11th Panhellenic Conference on Biomedical Technology, ELEVIT2025, Athens, Greece, March 21-23, 2025 (oral).

72. "Tailored biopolymer nanocarriers from protein–polysaccharide complexes for delivery of bioactive molecules",
A. Papagiannopoulos*,
15th Hellenic Polymer Society International Conference, Patras, Greece, December 3-6, 2025 (invited oral).

73. "Rheological tuning of nanoclay–hyaluronic acid hydrogels for biomedical and food structuring applications",
T. Biza, T. Moschakis, A. Papagiannopoulos*,
15th Hellenic Polymer Society International Conference, Patras, Greece, December 3-6, 2025 (poster).

74. "Surface plasmon resonance study of albumin–chondroitin multilayer growth",
A. Pavlopoulos*, N. Katsenou, A. Papagiannopoulos, D. L. Anastassopoulos, N. Spiliopoulos,

15th Hellenic Polymer Society International Conference, Patras, Greece, December 3-6, 2025 (poster).

75. "Electrostatic self-assembly of xanthan gum and diethylaminoethyl dextran: preparation, characterization, encapsulation of β-carotene and interaction with mucus-mimicking systems",
I. Pispas*, E. Pavlova, M. Slouf, A. Papagiannopoulos,
15th Hellenic Polymer Society International Conference, Patras, Greece, December 3-6, 2025 (oral).

76. "A study on the fabrication and physicochemical properties of chondroitin sulfate and diethylaminoethyl dextran carrier nanocomplexes",
I. Pispas*, A. Papagiannopoulos,
15th Hellenic Polymer Society International Conference, Patras, Greece, December 3-6, 2025 (poster).

77. "Design and optimization of electrostatically assembled protein-polysaccharide nanostructures for nutrient and drug delivery systems",
A. Papagiannopoulos*,
The 3rd International Online Conference on Polymer Science, November 19-21, 2025 (poster).

78. "Self-assembled polysaccharide-based multilayer nanofilms of xanthan gum and diethylaminoethyl dextran on gold substrate and their interaction with model biomacromolecules",
I. Pispas*, N. Spiliopoulos, A. Papagiannopoulos,
The 3rd International Online Conference on Polymer Science, November 19-21, 2025 (selected poster presentation).

79. "Small-angle scattering methods for the study of self-assembled protein/polysaccharide nanostructures",
A. Papagiannopoulos*,
Hellenic Biomaterials Conference, Ioannina, Greece, March 28-29, 2025 (oral).

80. "Preparation and Physicochemical Characterization of Xanthan Gumand Diethylaminoethyl Dextran Nanocomplexes",
I. Pispas*, A. Papagiannopoulos,
Hellenic Biomaterials Conference, Ioannina, Greece, March 28-29, 2025 (oral).

81. "N-methyl formamide (NMF) intercalation in Halloysites",
E. Siranidi*, A.A. Kouseri, G. D. Chryssikos, S. Hillier,
XVIII International Clay Conference, 13-18 July 2025, Dublin, Ireland (oral).

82. "Layer Charge measurements for the industrial characterization of bentonite: The past and future of the OD method",
G. D. Chryssikos*, E. Siranidi,
XVIII International Clay Conference, 13-18 July 2025, Dublin, Ireland (oral).

83. “Infrared spectroscopy in clay mineralogy”,
G. D. Chryssikos,
11th International DTTG Workshop, "Qualitative and Quantitative Analysis of Clays and Clay Minerals”, Institute of Geological Sciences, Polish Academy of Sciences, March 10-14th 2025. Krakow, Poland (invited, oral).

84. “Infrared spectroscopic techniques for the non-invasive study of clays”,
G. D. Chryssikos,
XVIII ICC Pre-conference workshop ‘An introduction to key determinative methods in clay science’, 13 July 2025, Dublin, Ireland (organizer, oral).
Video: https://youtu.be/x-aFbVgTH20?si=qrlajKq4oVnrmWae

85. “Infrared spectroscopy in clay mineralogy: Non-invasive techniques,
G. D. Chryssikos,
2025 ClayLab School of Clay Mineralogy, Institute of Geological Sciences, Polish Academy of Sciences, November 17-21st 2025. Krakow, Poland (invited, oral).

86. “Shocked minerals in the Northwest Africa 807 meteorite: Investigating the formation conditions of the high-pressure fayalite polymorph asimowite”,
M. Simopoulou*, I. Baziotis, J. Hu, C. Ma, L. Ferrière, D. Palles and P. Asimow,
Goldschmidt 2025 Conference, Prague, 6-11 July 2025 (remote oral).

87. “A computational study on type-I Sn clathrates with inorganic and organic guests”,
N. Kelaidis*, N. Moutzouris, E. Klontzas, A. Kaltzoglou,
21st European Conference on Thermoelectrics 2025, Nancy, France, September 8-12, 2025 (oral).

88. “Synthesis and characterization of polycationic Sn clathrates via ball milling”,
N. Moutzouris*, N. Tagiara, A. Kaltzoglou,
18th European Congress and Exhibition on Advanced Materials and Processes (FEMS 2025 Euromat), Granada, Spain, September 14-18, 2025 (poster).

89. “Synthesis, Crystal Structure and Optoelectronic properties of n-butyldimethylsulfonium lead triiodide”,
J. Koutsoubogeras*, N. Tsoureas, N. Tagiara, A. Philippopoulos, A. Kaltzoglou,
European Materials Research Society 2025 Fall Meeting (EMRS25), Warsaw, Poland, September 15-19, 2025 (poster).

90. “Semiconducting tin clathrates for thermoelectric applications”,
N. Moutzouris, N. Kelaidis, P. Mangelis, M. Vasilakaki, N. S. Tagiara, S. Hadjipanteli, E. Klontzas, T. Kyratsi, A. Kaltzoglou*,
4th International chemistry Conference, Athens, Greece, September 29 - October 1, 2025 (oral).

91. “Synthesis, crystal structure and electronic properties of n-butyldimethylsulfonium lead triiodide”,
J. Koutsoubogeras*, N. Tsoureas, A. Philippopoulos, A. Kaltzoglou,

6th Meeting of the Hellenic Crystallographic Association's Young Researchers, November 1-2, 2025, Athens, Greece (oral).

92. "Synthesis and characterization of hybrid organic/inorganic halide perovskites for optoelectronic applications",
J. Koutsoubogeras*, N. Tsoureas, A. Philippopoulos, A. Kaltzoglou,
4th Symposium of graduate students of the Chemistry Department, National and Kapodistrian University of Athens, Greece, May 28-29, 2025 (oral).

93. "Post synthetically modified MOF-808 as a porous Platform for Molecule Recognition and Optical Sensing",
G.K. Angeli*, A.A. Terzopoulou, E. Sakellis, P. Dallas,
Micro Nano & Chips Tech 2025 International Conference, (Chania), Greece November 06-09, 2025 (oral).

94. "Reticular Chemistry and the Rational Synthesis of Metal–Organic Frameworks",
G.K. Angeli*,
4th Symposium of Graduate Students of the Department of Chemistry, NKUA, Athens (Greece), 28-29 May 2025 (invited oral).

95. Efficient integration of quantum emitters in laser written optical channel waveguides in silica",
S. I. Tsintzos, K. Tsimvrakidis, J. C. Gates, O. Buchnev, A. W. Elshaari, V. Zwiller, P. G. R. Smith, and C. Riziotis*,
Conference on Lasers and Electro-Optics/Europe (CLEO/Europe 2025) and European Quantum Electronics Conference (EQEC 2025), Munich, Germany, June 23-27, 2025 (oral).

96. "Hybrid integrated quantum circuits in silica: limitations & perspectives towards quantum computing & sensing",
C. Riziotis*, S.I. Tsintzos, K. Tsimvrakidis, J.C. Gates, A.W. Elshaari, V. Zwiller, P.G.R. Smith,
12th International Conference on Micro-Nanoelectronics Nanotechnology and MEMS, Chania, Greece, November 6-9, 2025 (oral).

97. "Engineering photonic solutions at NHRF: from structural health monitoring to quantum computing",
Christos Riziotis*,
BEYOND Innovation Arena, International Exhibition – Digital Technology & Innovation Conference. Metropolitan Expo, Athens, Greece April 04-06, 2025 (oral).

98. "Laser written hybrid integrated circuits in silica platform: limitations & approaches towards scalable quantum computing & sensing devices",
Christos Riziotis*,
1st International Conference of PanHellenic Optical Society (PHOS), FORTH, Heraklion, Greece, October 10-11, 2025 (oral).

99. "Micro/nano-structures of transparent oxides by laser processing for optoelectronics and smart surfaces",
M. Kandyla*,
10th International Symposium on Transparent Conductive Materials, Rethymno, Greece, October 19-23, 2025 (invited).

100. "Isotype heterojunction n^+-ZnO/n-Si photodetector with tunable wavelength-selective, high-speed, and self-powered operation",
M. D. Tsanakas, A. Jaros, Y. Fleming, M. Efthimiadou, T. Voss, R. Leturcq, S. Gardelis, M. Kandyla*,
Conference on Lasers and Electro-Optics Europe (CLEO/Europe-EQEC), Munich, Germany, June 23-27, 2025 (poster).

101. "Viscoelastic properties and bending dynamics of red blood cells under oxidative stress at the single-cell level using optical tweezers",
T. Giannakis*, S. Fortis, M.-A. Kosma, E. Meletis, E. Papageorgiou, S. Valsami, A. Kriebardis, M. Kandyla,
36th Congress of the Hellenic Society of Haematology, Athens, Greece, November 6-8, 2025 (poster).

102. "Multifunctional Ultrafast Metasurfaces: All-Optical Modulation of Amplitude, Phase, and Polarization with Graphene Nanoribbons",
N. Matthaiakakis, S. Droulias and G. Kakarantzas*,
1st International Conference of PanHellenic Optical Society (PHOS), FORTH, Heraklion, Greece, October 10- 11, 2025 (oral).

7. University and Research Organization Presentations

1. "Metasurfaces and 2D materials for photonics and optoelectronics",
O. Tsilipakos,
Joint INN-COSANet seminar, National Centre for Scientific Research "Demokritos", Athens, Greece, May 8, 2025.

2. "Engineering the dispersion and mode profile of guided waves with metasurfaces",
O. Tsilipakos,
Microwave online seminar, ITMO Physics Department, October 23, 2025.

3. "Computational Exploration of Nanoscale Materials with Density Functional Theory: Uncovering Structural, Mechanical, and Electronic Properties",
N. N. Lathiotakis,
Seminar of the Chemistry Department, National and Kapodistrian University of Athens, Athens, Greece, November 24, 2025.

4. "Bridging the Scales through Systematic Modeling of Complex Polymeric and Biological Systems",
A. N. Rissanou,
Lecture in the Department of Biology, National and Kapodistrian University of Athens, Athens, Greece, January 24, 2025.

5. “Systematic Modeling of Complex Polymeric Systems: A Multiscale Approach”,
   A. N. Rissanou,
   Seminar of the Institute of Nanoscience and Nanotechnology of the NCSR "Demokritos”, Athens, Greece, March 20, 2025.

6. “Computational Modeling of Soft Matter Across Scales”,
   N. Rissanou,
   Lecture in the Summer School – Computational Methods, EU-funded FORGreenSoft project. FORTH and European centers of excellence, Heraklion, Greece, September 25, 2025.

7. “Measurement techniques in fluorescence and their use in biological samples”
   Dr. G. A. Mousdis,
   Cost Action CA21159, Training school Spitsbergen, Svalbard-Norway, 8-10 April 2025.

8. “Developing Functional Porous Frameworks: From Reticular Chemistry to Energy and Environmental Applications”,
   G.K. Angeli,
   Department of Chemistry, National and Kapodistrian University of Athens, 13 October 2025.

9. “Solar-Driven Photocatalysis for Hydrogen Production and Carbon Dioxide Conversion”,
   G. Charalambidis,
   Department of Chemistry, National and Kapodistrian University of Athens, Greece. December 15, 2025.

10. “Photonic technology for biomedical, defence and quantum applications”,
    Christos Riziotis*,
    Marie Curie Action Open Webinars “Light as a tool in modern science & technology”, NHRF, Athens, June 11, 2025 (oral).

8. Wider Public Dissemination

1. “Υπέρλεπτες πολύρυθμες μεταεπιφάνειες για έλεγχο ηλεκτρομαγνητικών κυμάτων: Εφαρμογή στην ευρυζωνική αντιστάθμιση διασποράς”,
   Ο. Τσιλιπάκος,
   ΑΝΟΙΚΤΟ ΔΙΑΔΙΚΤΥΑΚΟ ΣΕΜΙΝΑΡΙΟ «Το φως σαν εργαλείο της σύγχρονης επιστήμης και τεχνολογίας», ΙΘΦΧ/ΕΙΕ, 11 Ιουνίου 2025.

2. “Efstratios Kamitsos: Honoree of the Tenth Conference on Borate Glasses, Crystals and Melts”,
   S. Feller, G. D. Chryssikos, D. Mönk,
   Phys. Chem. Glasses – Eur. J. Glass Sci. Technol. B, **2025**, *66*, 38-48.
   DOI: 10.13036/17533562.65.2.18

3. "Energy: Challenges and future technological solutions",
Dr. G. A. Mousdis,
Physics Enchantments 17th Cycle (Union of Greek Physicists) 19-20-21 December Univ. of West Attika, 2025.

4. "Modified melamine sponges for crude oil and heavy metal removal"
Green Chemistry and Technology workshop
Dr. P. Dallas,
Hellenic Green Chemistry Network & Chemistry Department of Aristotle University of Thessaloniki. 28-29 November 2025.

5. "Thermoelectric materials for building-integrated applications",
A. Kaltzoglou,
BEYOND2025, Metropolitan Expo, Athens, April 4-6, 2025.

6. "Semiconducting materials for thermoelectric modules",
N. Tagiara,
ΔΕΘ2025, Thessaloniki, Greece September 6-14 (exhibition).

7. "Light as a tool of modern science and technology",
Organizer: Dr. M. Kandyla,
Webinar for the general public, June 11, 2025.

8. "Light as a tool for manipulation at the micro/nanoscale",
T. Giannakis*, S. V. Starinskiy, M. Kandyla,
Thessaloniki International Fair, Thessaloniki, Greece, September 5-11, 2025.

9. Patent Applications

1. "Light coupling between nanowire and optical waveguide by microsphere photonic nanojet",
Inventor: Dr. C. Riziotis,
Hellenic Industrial Property Organization, HIPA/OBI, Application Number #20230100588, Patent Award #1010889 (16.02.2025).