

TPCI (IOPX) 2022

1. Publications in Refereed Journals

1. “Defect passivation in perovskite solar cells using an amino-functionalized BODIPY fluorophore”,
A. Soultati, M. Tountas, A. Fakharuddin, M.-C. Skoulikidou, A. Verykios, K. K. Armadorou, N. Tzoganakis, V. P. Vidali, I. Sakellis, P. Koralli, C. L. Chochos, I. Petsalakis, E. Nikoloudakis, L. C. Palilis, P. P. Filippatos, P. Argitis, D. Davazoglou, A. R. bin Mohd Yusoff, E. Kymakis, A. G. Coutsolelos, M. Vasilopoulou,
Sustainable Energy Fuels **2022**, *6*, 25702.
DOI: [10.1039/d2se00384h](https://doi.org/10.1039/d2se00384h)
2. “Vapor-liquid-solid growth and properties of one dimensional PbO and PbO/SnO₂ nanowires”,
N. Kelaidis, M. Zervos, N. N. Lathiotakis, A. Chroneos, E. Tanasa, E. Vasile,
Mater. Adv. **2022**, *3*, 1695.
DOI: [10.1039/D1MA00787D](https://doi.org/10.1039/D1MA00787D)
3. “Uniaxially strained graphene: Structural characteristics and G-mode splitting”,
G. Kalosakas, N. N. Lathiotakis, K. Papagelis,
Materials **2022**, *15*, 67.
DOI: [10.3390/ma15010067](https://doi.org/10.3390/ma15010067)
4. “Density inversion method for local basis sets without potential auxiliary functions: inverting densities from RDMFT”,
S. Bousiadi, N. I. Gidopoulos, N. N. Lathiotakis,
Phys. Chem. Chem. Phys. **2022**, *24*, 19279.
DOI: [10.1039/D2CP01866G](https://doi.org/10.1039/D2CP01866G)
5. “Evaluating the performance of ReaxFF potentials for sp² carbon systems (graphene, carbon nanotubes, fullerenes) and a new ReaxFF potential”,
Z. G. Fthenakis, I. D. Petsalakis, V. Tozzini, N. N. Lathiotakis,
Front. Chem. **2022**, *10*, 951261.
DOI: [10.3389/fchem.2022.951261](https://doi.org/10.3389/fchem.2022.951261)
6. “Gas separation utilizing graphene membranes: a theoretical study”,
Z. G. Fthenakis, A. Fountoulakis, I. D. Petsalakis, N. N. Lathiotakis,
Adv. Mater. Lett. **2022**, *13*, 031700.
DOI: [10.5185/amlett.2022.031700](https://doi.org/10.5185/amlett.2022.031700)
7. “A proposed nomenclature for graphene pores: a systematic study of their geometrical features and an algorithm for their generation and enumeration”,
Z. G. Fthenakis,
Carbon **2022**, *199*, 508.
DOI: [10.1016/j.carbon.2022.07.038](https://doi.org/10.1016/j.carbon.2022.07.038)
8. “Optical response, lithiation and charge transfer in Sn-based 211 MAX phases with electron localization function”,
M. A. Hadi, N. Kelaidis, P.-P. Filippatos, S.-R. G. Christopoulos, A. Chroneos, S. H. Naqib, A. K. M. A. Islam,
J. Mat. Res. Tech. **2022**, *18*, 2470.
DOI: [10.1016/j.jmrt.2022.03.083](https://doi.org/10.1016/j.jmrt.2022.03.083)

9. "Effect of halogen doping on the electronic, electrical, and optical properties of anatase TiO₂",
P.-P. Filippatos, N. Kelaidis, M. Vasilopoulou, D. Davazoglou, A. Chroneos,
AIP Adv. **2022**, *12*, 115017.
DOI: [10.1063/5.0129075](https://doi.org/10.1063/5.0129075)
10. "A computational study on phenyldiboronic acid-pillared graphene oxide frameworks for gas storage and separation",
I. Skarmoutsos, E. N. Koukaras, E. Klontzas,
ACS Appl. Nano. Mater. **2022**, *5*, 9286.
DOI: [10.1021/acsanm.2c01617](https://doi.org/10.1021/acsanm.2c01617)
11. "CF₄ capture and separation of CF₄-SF₆ and CF₄-N₂ fluid mixtures using selected carbon nanoporous materials and metal-organic frameworks: A computational study",
I. Skarmoutsos, E. N. Koukaras, E. Klontzas,
ACS Omega **2022**, *7*, 6691.
DOI: [10.1021/acsomega.1c06167](https://doi.org/10.1021/acsomega.1c06167)
12. "Linker functionalization strategy for water adsorption in metal-organic frameworks",
R. M. Giappa, A. G. Papadopoulos, E. Klontzas, E. Tylianakis, G. E. Froudakis,
Molecules **2022**, *27*, 1614.
DOI: [10.3390/molecules27092614](https://doi.org/10.3390/molecules27092614)
13. "XR-RF imaging enabled by software-defined metasurfaces and machine learning: Foundational vision, technologies and challenges",
C. Liaskos, A. Tsioliaridou, K. Georgopoulos, I. Morianos, S. Ioannidis, I. Salem, D. Manassis, S. Schmid, D. Tyrovolas, S. A. Tegos, P.-V. Mekikis, P. D. Diamantoulakis, A. Pitilakis, N. V. Kantartzis, G. K. Karagiannidis, A. C. Tasolamprou, O. Tsilipakos, M. Kafesaki, I. F. Akyildiz, A. Pitsillides, M. Pateraki, M. Vakalellis, I. Spais,
IEEE Access **2022**, *10*, 119841.
DOI: [10.1109/ACCESS.2022.3219871](https://doi.org/10.1109/ACCESS.2022.3219871)
14. "The role of oxidation pattern and water content in the spatial arrangement and dynamics of oxidized graphene-based aqueous dispersions",
A. Rissanou, I. Karnis, F. Krasanakis, K. Chrissopoulou, K. Karatasos,
Int. J. Mol. Sci. **2022**, *23*, 13459.
DOI: [10.3390/ijms232113459](https://doi.org/10.3390/ijms232113459)
15. "The effect of geometry, spin and orbital optimization in achieving accurate, correlated results for Iron-Sulfur cubanes",
C. Mejuto-Zaera, D. Tzeli, D. Williams-Young, N. M. Tubman, M. Matoušek, J. Brabec, L. Veis, S. S. Xantheas, W. A. de Jong,
J. Chem. Theory Comput. **2022**, *18*, 687.
DOI: [10.1021/acs.jctc.1c00830](https://doi.org/10.1021/acs.jctc.1c00830)
16. "Molecular investigation of artificial and natural sweeteners as potential anti-inflammatory agents",
E. Chontzopoulou, C. Papaemmanouil, M. V. Chatziathanasiadou, D. Kolokouris, S. Kiriakidi, A. Konstantinidi, I. Gerogianni, T. Tselios, I. K. Kostakis, E. D. Chrysinia, D. Hadjipavlou-Litina, D. Tzeli, A. G. Tzacos, T. Mavromoustakos,
J. Biomol. Struct. Dyn. **2022**, *40*, 12608.

DOI: [10.1080/07391102.2021.1973565](https://doi.org/10.1080/07391102.2021.1973565)

17. "The molybdenum-sulfur bond: Electronic structure of low-lying states of MoS", D. Tzeli, I. Karapetsas, D. M. Merriles, J. C. Ewigleben, M. D. Morse, *J. Phys. Chem. A* **2022**, *126*, 1168.
DOI: [10.1021/acs.jpca.1c10672](https://doi.org/10.1021/acs.jpca.1c10672)
18. "Losartan interactions with 2-hydroxypropyl- β -CD", V. Palli, G. Leonis, N. Zoupanou, N. Georgiou, M. Chountoulesi, N. Naziris, D. Tzeli, C. Demetzos, G. Valsami, K. D. Marousis, G. A. Spyroulias, T. Mavromoustakos, *Molecules* **2022**, *27*, 2421.
DOI: [10.3390/molecules27082421](https://doi.org/10.3390/molecules27082421)
19. "Conformational properties of new thiosemicarbazone and thiocarbohydrazone derivatives and their possible targets", N. Georgiou, A. Katsogiannou, D. Skourtis, H. Iatrou, D. Tzeli, S. Vassiliou, U. Javornik, J. Plavec, T. Mavromoustakos, *Molecules* **2022**, *27*, 2537.
DOI: [10.3390/molecules27082537](https://doi.org/10.3390/molecules27082537)
20. "3-input AND molecular logic gate with enhanced fluorescence output: The key atom for the accurate prediction of the spectra", C. E. Tzeliou, D. Tzeli, *J. Chem. Inf. Model.* **2022**, *62*, 6436.
DOI: [10.1021/acs.jcim.2c00257](https://doi.org/10.1021/acs.jcim.2c00257)
21. "Review on the QM/MM methodologies and their application to metalloproteins", C. E. Tzeliou, M. A. Mermigki, D. Tzeli, *Molecules* **2022**, *27*, 2660.
DOI: [10.3390/molecules27092660](https://doi.org/10.3390/molecules27092660)
22. "A DFT study towards the amide cis-trans isomerization process of the myc-max inhibitor mycro 3 and its photophysical properties. Synthesis and NMR studies of the trans-conformation", D. Mamalis, A. Panagiotopoulou, E. A. Couladouros, D. Tzeli, V. P. Vidali *Chem. Select* **2022**, *7*, e20220163.
DOI: [10.1002/slct.202201639](https://doi.org/10.1002/slct.202201639)
23. "Breaking covalent bonds in the context of the many-body expansion (MBE). I. The purported "first row anomaly" in XH_n ($X = C, Si, Ge, Sn; n = 1-4$)", D. Tzeli, S. S. Xantheas, *J. Chem. Phys.* **2022**, *156*, 244303.
DOI: [10.1063/5.0095329](https://doi.org/10.1063/5.0095329)
24. "Conformational properties and putative bioactive targets for novel thiosemicarbazone derivatives", N. Georgiou, A. Cheilari, D. Karta, E. Chontzopoulou, J. Plavec, D. Tzeli, S. Vassiliou, T. Mavromoustakos, *Molecules* **2022**, *27*, 4548.
DOI: [10.3390/molecules27144548](https://doi.org/10.3390/molecules27144548)
25. "Analysis of chemical bonding of the ground and low-lying states of Mo_2 and of Mo_2Cl_x complexes, $x = 2-10$ ", T. Depastas, A. Androustopoulos, D. Tzeli,

- J. Chem. Phys.* **2022**, *157*, 054302.
DOI: [10.1063/5.0091907](https://doi.org/10.1063/5.0091907)
26. “The many-body expansion for metals. I: The alkaline earth metals Be, Mg, and Ca”,
J. Mato, D. Tzeli, S. S. Xantheas,
J. Chem. Phys. **2022**, *157*, 084313.
DOI: [10.1063/5.0094598](https://doi.org/10.1063/5.0094598)
27. “Comparative interaction studies of quercetin with 2-hydroxyl-propyl-cyclodextrin and 2,6-methylated-cyclodextrin”,
V. Vakali, M. Papadourakis, N. Georgiou, N. Zoupanou, D. Diamantis, U. Javornik, P. Papakyriakopoulou, J. Plavec, G. Valsami, A. Tzakos, D. Tzeli, Z. Cournia, T. Mavromoustakos,
Molecules **2022**, *27*, 5490.
DOI: [10.3390/molecules27175490](https://doi.org/10.3390/molecules27175490)
28. “Self cycloaddition of o-naphthoquinone nitrosomethide to (B±) spiro{naphthalene (naphthopyranofurazan)}-one oxide. An insight into its formation”,
D. Tzeli, I. E. Gerontitis, I. D. Petsalakis, P. G. Tsoungas, G. Varvounis,
ChemPlusChem **2022**, *87*, e202200313.
DOI: [10.1002/cplu.202200313](https://doi.org/10.1002/cplu.202200313)
29. “One-step covalent hydrophobic/hydrophilic functionalization of chemically exfoliated molybdenum disulfide nanosheets with RAFT derived polymers”,
A. Plantzopoulou, A. Stergiou, M. Kafetzi, R. Arenal, S. Pispas, N. Tagmatarchis,
Chem. Commun. **2022**, *58*, 795.
DOI: [10.1039/D1CC06195J](https://doi.org/10.1039/D1CC06195J)
30. “Methylammonium lead bromide perovskite nanocrystals grown in a poly[styrene-co-(2-(dimethylamino)ethyl methacrylate)] matrix immobilized on exfoliated graphene nanosheets”,
A. Stergiou, I. K. Sideri, M. Kafetzi, A. Ioannou, R. Arenal, G. Mousdis, S. Pispas, N. Tagmatarchis,
Nanomaterials **2022**, *12*, 1275.
DOI: [10.3390/nano12081275](https://doi.org/10.3390/nano12081275)
31. “Graphene featuring imidazolium rings and electrostatically immobilized polyacrylate chains as metal-free electrocatalyst for selective oxygen reduction to hydrogen peroxide”,
M.-L. Vorvila, I. K. Sideri, A. Stergiou, M. Kafetzi, R. Arenal, S. Pispas, N. Tagmatarchis,
Colloids Surf. A: Physicochem. Engin. Aspects **2022**, *648*, 129252.
DOI: [10.1016/j.colsurfa.2022.129252](https://doi.org/10.1016/j.colsurfa.2022.129252)
32. “A solution-processed MoS₂/graphene heterostructure mediated by a bifunctional block copolymer as a non-noble metal platform for hydrogen evolution”,
A. Plantzopoulou, I. K. Sideri, A. Stergiou, M. Kafetzi, R. Arenal, S. Pispas, N. Tagmatarchis,
Sustainable Energy Fuels **2022**, *6*, 2858.
DOI: [10.1039/D2SE00218C](https://doi.org/10.1039/D2SE00218C)
33. “Electrocatalytic activity for proton reduction by a covalent non-metal graphene-

- fullerene hybrid”,
D. D. Chronopoulos, C. Stangel, M. Scheibe, K. Cepe, N. Tagmatarchis, M. Otyepka,
Chem. Commun. **2022**, 58, 8396.
DOI: [10.1039/D2CC02272A](https://doi.org/10.1039/D2CC02272A)
34. “Pyridine vs imidazole axial ligand on cobaloxime grafted graphene: Hydrogen evolution reaction insights”,
I. K. Sideri, G. Charalambidis, A. G. Coutsolelos, R. Arenal, N. Tagmatarchis,
Nanomaterials **2022**, 12, 3077.
DOI: [10.3390/nano12173077](https://doi.org/10.3390/nano12173077)
35. “Molybdenum diselenide-manganese porphyrin bifunctional electrocatalyst for the hydrogen evolution reaction and selective hydrogen peroxide production”,
A. Kagkoura, C. Stangel, R. Arenal, N. Tagmatarchis,
J. Phys. Chem. C **2022**, 126, 14850.
DOI: [10.1021/acs.jpcc.2c04723](https://doi.org/10.1021/acs.jpcc.2c04723)
36. “Photo/electrocatalytic hydrogen peroxide production by manganese and iron porphyrin/molybdenum disulfide nanoensembles”,
D. K. Perivoliotis, C. Stangel, Y. Sato, K. Suenaga, N. Tagmatarchis,
Small **2022**, 18, 2203032.
DOI: [10.1002/sml.202203032](https://doi.org/10.1002/sml.202203032)
37. “Graphene performs the role of an electron donor in covalently interfaced porphyrin-boron azadipyrromethene dyads and manages photoinduced charge-transfer processes”,
R. Canton-Vitoria, A. Z. Alsaleh, G. Rotas, Y. Nakanishi, H. Shinohara, F. D’Souza, N. Tagmatarchis,
Nanoscale **2022**, 14, 15060.
DOI: [10.1039/D2NR03740H](https://doi.org/10.1039/D2NR03740H)
38. “Crystalline phase effects on the nonlinear optical response of MoS₂ and WS₂ nanosheets: Implications for photonic and optoelectronic applications”,
M. Stavrou, N. Chazapis, E. Nikoli, R. Arenal, N. Tagmatarchis, S. Couris,
ACS Appl. Nano Mater. **2022**, 5, 16674.
DOI: [10.1021/acsanm.2c03709](https://doi.org/10.1021/acsanm.2c03709)
39. “Transition metal dichalcogenides interfacing photoactive molecular components for managing energy conversion processes”,
C. Stangel, E. Nikoli, N. Tagmatarchis,
Adv. Energy Sustainability Res. **2022**, 3, 2200097.
DOI: [10.1002/aesr.202200097](https://doi.org/10.1002/aesr.202200097)
40. “Aqueous heat method for the preparation of hybrid lipid–polymer structures: from preformulation studies to protein delivery”,
N. Pippa, N. Lagopati, A. Forys, M. Chountoules, H. Katifelis, V. Chrysostomou, B. Trzebicka, M. Gazouli, C. Demetzos, S. Pispas,
Biomedicines **2022**, 10, 1228.
DOI: [10.3390/biomedicines10061228](https://doi.org/10.3390/biomedicines10061228)
41. “Design and development of DSPC:DAP:PDMAEMA-b-PLMA nanostructures: from the adumbration of their morphological characteristics to in vitro evaluation”,

- N. Pippa, A. Forys, H. Katifelis, V. Chrysostomou, B. Trzebicka, M. Gazouli, C. Demetzos, S. Pispas,
Colloids Surf. A **2022**, *632*, 127768.
DOI: [10.1016/j.colsurfa.2021.127768](https://doi.org/10.1016/j.colsurfa.2021.127768)
42. “Structure of micelleplexes formed between QPDMAEMA-b-PLMA amphiphilic cationic copolymer micelles and DNA of different lengths”,
V. Chrysostomou, A. Forys, B. Trzebicka, C. Demetzos, S. Pispas,
Eur. Polym. J. **2022**, *166*, 111048.
DOI: [10.1016/j.eurpolymj.2022.111048](https://doi.org/10.1016/j.eurpolymj.2022.111048)
43. “Poly[(vinyl benzyl trimethylammonium chloride)]-based nanoparticulate copolymer structures encapsulating insulin”,
A. Chroni, A. Forys, T. Sentoukas, B. Trzebicka, S. Pispas,
Eur. Polym. J. **2022**, *169*, 111158.
DOI: [10.1016/j.eurpolymj.2022.111158](https://doi.org/10.1016/j.eurpolymj.2022.111158)
44. “Non-ionic surfactant effects on innate Pluronic 188 behavior: interactions, and physicochemical and biocompatibility studies”,
O. Kontogiannis, D. Selianitis, D. R. Perinelli, G. Bonacucina, N. Pippa, M. Gazouli, S. Pispas,
Int. J. Mol. Sci. **2022**, *23*, 13814.
DOI: [10.3390/ijms232213814](https://doi.org/10.3390/ijms232213814)
45. “The technology of transdermal delivery nanosystems: from design and development to preclinical studies”,
D. Despotopoulou, N. Lagopati, S. Pispas, M. Gazouli, C. Demetzos, N. Pippa,
Int. J. Pharm. **2022**, *611*, 121290.
DOI: [10.1016/j.ijpharm.2021.121290](https://doi.org/10.1016/j.ijpharm.2021.121290)
46. “Aggregation behavior of the strong amphiphilic cationic diblock polyelectrolytes at the air/water interface”,
Y. Ding, G. Wen, V. Chrysostomou, S. Pispas, K. Jiang, Z. Sun, H. Li,
J. Appl. Polym. Sci. **2022**, *139*, e52079.
DOI: [10.1002/app.52079](https://doi.org/10.1002/app.52079)
47. “Aggregation behavior of symmetric poly(n-butyl acrylate)-block-poly(acrylic acid) on subphases of different ionic strengths”,
S. Yang, G. Wen, S. Pispas, K. You,
J. Appl. Polym. Sci. **2022**, *139*, e52641.
DOI: [10.1002/app.52641](https://doi.org/10.1002/app.52641)
48. “Poly(2-(dimethylamino) ethyl methacrylate)-b-poly(lauryl methacrylate)-b-poly(oligo ethylene glycol methacrylate) triblock terpolymer micelles as drug delivery carriers for curcumin”,
A. Skandalis, D. Selianitis, D. R. Sory, S. M. Rankin, J. R. Jones, S. Pispas,
J. Appl. Polym. Sci. **2022**, *139*, e52899.
DOI: [10.1002/app.52899](https://doi.org/10.1002/app.52899)
49. “Studying the properties of polymer-lipid nanostructures: The role of the host lipid”,
M. Chountoulesi, D. R. Perinelli, A. Forys, H. Katifelis, D. Selianitis, V. Chrysostomou, N. Lagopati, G. Bonacucina, B. Trzebicka, M. Gazouli, C. Demetzos, S. Pispas, N. Pippa,
J. Drug Deliv. Sci. Technol. **2022**, *77*, 103830.

- DOI: [10.1016/j.jddst.2022.103830](https://doi.org/10.1016/j.jddst.2022.103830)
50. “Interfacial aggregation behavior of triblock terpolymers”,
G. He, G. Wen, A. Skandalis, S. Pispas, D. Liu, W. Zhang,
J. Polym. Res. **2022**, *29*, 383.
DOI: [10.1007/s10965-022-03244-7](https://doi.org/10.1007/s10965-022-03244-7)
 51. “P(OEGMA-co-LMA) hyperbranched amphiphilic copolymers as self-assembled nanocarriers”,
A. Balafouti, S. Pispas,
J. Polym. Sci. **2022**, *60*, 1931.
DOI: [10.1002/pol.20220078](https://doi.org/10.1002/pol.20220078)
 52. “Hydrophilic random cationic copolymers as polyplex-formation vectors for DNA”,
V. Chrysostomou, H. Katifelis, M. Gazouli, K. Dimas, C. Demetzos, S. Pispas,
Materials **2022**, *15*, 2650.
DOI: [10.3390/ma15072650](https://doi.org/10.3390/ma15072650)
 53. “Nano-sized polyelectrolyte complexes formed between poly(vinyl benzyl trimethylammonium chloride) and insulin”,
A. Chroni, S. Pispas,
Micro **2022**, *2*, 313.
DOI: [10.3390/micro2020020](https://doi.org/10.3390/micro2020020)
 54. “Amphiphilic P(OEGMA-Co-DIPAEMA) hyperbranched copolymer/magnetic nanoparticle hybrid nanostructures by co-assembly”,
D. Selianitis, A. Forys, B. Trzebicka, A. Alemayehu, V. Tyrpekl, S. Pispas,
Nanomanufacturing **2022**, *2*, 53.
DOI: [10.3390/nanomanufacturing2010004](https://doi.org/10.3390/nanomanufacturing2010004)
 55. “Lyotropic liquid crystalline nanostructures as drug delivery systems and vaccine platforms”,
M. Chountoulesi, S. Pispas, I. K. Tseti, C. Demetzos,
Pharmaceuticals **2022**, *15*, 429.
DOI: [10.3390/ph15040429](https://doi.org/10.3390/ph15040429)
 56. “Polymeric nanostructures containing proteins and peptides for pharmaceutical applications”,
A. Vardaxi, M. Kafetzi, S. Pispas,
Polymers **2022**, *14*, 777.
DOI: [10.3390/polym14040777](https://doi.org/10.3390/polym14040777)
 57. “Development of double hydrophilic block copolymer/porphyrin polyion complex micelles towards photofunctional nanoparticles.
M. Karayianni, D. Koufi, S. Pispas,
Polymers **2022**, *14*, 5186.
DOI: [10.3390/polym14235186](https://doi.org/10.3390/polym14235186)
 58. “Ecofriendly removal of aluminum and cadmium sulfate pollution by adsorption on hexanoyl-modified chitosan”,
B. Reis, K. B. L. Borchert, M. Kafetzi, M. Müller, K. H. Carrasco, N. Gerlach, C. Steinbach, S. Schwarz, R. Boldt, S. Pispas, D. Schwarz,
Polysaccharides **2022**, *3*, 589.
DOI: [10.3390/polysaccharides3030035](https://doi.org/10.3390/polysaccharides3030035)

59. “Dual-responsive amphiphilic P(DMAEMA-co-LMA-co-OEGMA) terpolymer nano-assemblies in aqueous media”,
M. Tomara, D. Selianitis, S. Pispas,
Nanomaterials **2022**, *12*, 3791.
DOI: [10.3390/nano12213791](https://doi.org/10.3390/nano12213791)
60. “Grafted copolymer electrolytes based on the poly(acrylic acid-co-oligo ethylene glycol acrylate) (P(AA-co-OEGA)) ion-conducting and mechanically robust block”,
A. Pipertzis, A., M. Kafetzi, D. Giaouzi, S. Pispas, G. A. Floudas,
ACS Appl. Polym. Mater. **2022**, *4*, 7070.
DOI: [10.1021/acsapm.2c00987](https://doi.org/10.1021/acsapm.2c00987)
61. “Sustainable production of novel oleogels valorizing microbial oil rich in carotenoids derived from spent coffee grounds”,
A. Mavria, E. Tsouko, S. Protonotariou, A. Papagiannopoulos, M. Georgiadou, D. Selianitis, S. Pispas, I. Mandala, A. Koutinas,
J. Agric. Food Chem. **2022**, *70*, 10807.
DOI: [10.1021/acs.jafc.2c03478](https://doi.org/10.1021/acs.jafc.2c03478)
62. “Valorization of wheat milling by-products into bacterial nanocellulose via ex-situ modification following circular economy principles”,
A. Natsia, E. Tsouko, C. Pateraki, M.-N. Efthymiou, A. Papagiannopoulos, D. Selianitis, S. Pispas, K. Bethanis, A. Koutinas,
Sustain. Chem. Pharm. **2022**, *29*, 100832.
DOI: [10.1016/j.scp.2022.100832](https://doi.org/10.1016/j.scp.2022.100832)
63. “Sustainable production of novel oleogels valorizing microbial oil rich in carotenoids derived from spent coffee grounds”,
A. Mavria, E. Tsouko, S. Protonotariou, A. Papagiannopoulos, M. Georgiadou, D. Selianitis, S. Pispas, I. Mandala, A. A. Koutinas,
J. Agric. Food Chem. **2022**, *70* (35), 10807.
DOI: [10.1021/acs.jafc.2c03478](https://doi.org/10.1021/acs.jafc.2c03478)
64. “Property evaluation of bacterial cellulose nanostructures produced from confectionery wastes”,
M.N. Efthymiou, E. Tsouko, C. Pateraki, A. Papagiannopoulos, P. Tzamalidis, S. Pispas, K. Bethanis, I. Mantala, A. Koutinas,
Biochem. Eng. J. **2022**, *186*, 108575.
DOI: [10.1016/j.bej.2022.108575](https://doi.org/10.1016/j.bej.2022.108575)
65. “Development of biodegradable films using sunflower protein isolates and bacterial nanocellulose as innovative food packaging materials for fresh fruit preservation”,
M. N. Efthymiou, E. Tsouko, A. Papagiannopoulos, I. G. Athanasoulia, M. Georgiadou, S. Pispas, D. Briassoulis, T. Tsironi, A. Koutinas,
Sci. Rep. **2022**, *12*, 6935.
DOI: [10.1038/s41598-022-10913-6](https://doi.org/10.1038/s41598-022-10913-6)
66. “Current advances of polysaccharide-based nanogels and microgels in food and biomedical sciences”,
A. Papagiannopoulos, K. Sotiropoulos,
Polymers **2022**, *14*, 813.
DOI: [10.3390/polym14040813](https://doi.org/10.3390/polym14040813)

67. "Preparation of trypsin-based nanoparticles, colloidal properties and ability to bind bioactive compounds",
A. Papagiannopoulos, D. Selianitis, A. Chroni, J. Allwang, Y. Li, C.M. Papadakis,
Int. J. Biol. Macromol. **2022**, 208, 678.
DOI: [10.1016/j.ijbiomac.2022.03.131](https://doi.org/10.1016/j.ijbiomac.2022.03.131)
68. "Formation and physicochemical properties of glycogen phosphorylase in complex with a cationic polyelectrolyte",
D. D. Neofytos, A. Papagiannopoulos, E. D. Chrysina, S. Pispas,
Int. J. Biol. Macromol. **2022**, 206, 371.
DOI: [10.1016/j.ijbiomac.2022.02.136](https://doi.org/10.1016/j.ijbiomac.2022.02.136)
69. "Star polyelectrolytes with mixed arms of PDMAEMA and POEGMA: Self assembly and coassembly with insulin",
E. Vlassi, A. Papagiannopoulos, S. Pispas,
Macromol. Chem. Phys. **2022**, 223, 2200008.
DOI: [10.1002/macp.202200008](https://doi.org/10.1002/macp.202200008)
70. "Length-scale dependence of pH- and temperature-response of PDMAEMA-b-PHPMA block copolymer self-assemblies in aqueous solutions",
A. Papagiannopoulos, T. Sentoukas, S. Pispas, A. Radulescu, V. Pipich, C. Lang,
Polymer **2022**, 239, 124428.
DOI: [10.1016/j.polymer.2021.124428](https://doi.org/10.1016/j.polymer.2021.124428)
71. "Polysaccharide–protein multilayers based on chitosan–fibrinogen assemblies for cardiac cell engineering",
M. Kitsara, G. Tassis, A. Papagiannopoulos, A. Simon, O. Agbulut, S. Pispas,
Macromol. Biosci. **2022**, 22, 2100346.
DOI: [10.1002/mabi.202100346](https://doi.org/10.1002/mabi.202100346)
72. "Niobate in silicate and phosphate glasses: Effect of glass basicity on crucible dissolution",
N. A. Wójcik, S. Ali, E. I. Kamitsos, D. Möncke,
Int. J. Appl. Glass Sci. **2022**, 13, 121.
DOI: [10.1111/ijag.16505](https://doi.org/10.1111/ijag.16505)
73. "Yttrium and rare-earth modified lithium orthoborates: Glass formation and vibrational activity",
B. Topper, N. S. Tagiara, A. Herrmann, E. I. Kamitsos, D. Möncke,
J. Non-Cryst. Solids **2022**, 575, 121152.
DOI: [10.1016/j.jnoncrysol.2021.121152](https://doi.org/10.1016/j.jnoncrysol.2021.121152)
74. "Mechanism of hopping conduction in Be-Fe-Al-Te-O semiconducting glasses and glass-ceramics",
N. A. Wójcik, N. S. Tagiara, D. Möncke, E. I. Kamitsos, S. Ali, J. Ryl, R. J. Barczyński,
J. Mater. Sci. **2022**, 57, 1633.
DOI: [10.1007/s10853-021-06834-w](https://doi.org/10.1007/s10853-021-06834-w)
75. "Archaeological and historical study of the Lykion complemented by IR and Raman spectroscopic investigation",
M. Papageorgiou, V. Boura, D. Palles, H. Brecolaki, K. Kallintzi, M. Chrysaphi, E. I. Kamitsos,
Sci. Cult. **2022**, 8, 95.
DOI: [10.5281/zenodo.5717172](https://doi.org/10.5281/zenodo.5717172)

76. "Structure of lead borate glasses by Raman, ^{11}B MAS, and ^{207}Pb NMR spectroscopies",
K. I. Chatzipanagis, N. S. Tagiara, E. I. Kamitsos, N. Barrow, I. Slagle, R. Wilson, T. Greiner, M. Jesuit, N. Leonard, A. Phillips, B. Reynolds, B. Royle, K. Ameku, S. Feller,
J. Non-Cryst. Solids **2022**, 589, 121660.
DOI: [10.1016/j.jnoncrysol.2022.121660](https://doi.org/10.1016/j.jnoncrysol.2022.121660)
77. "Phosphorus and potassium recovery from anaerobically digested olive mill waste water using modified zeolite, fly ash and zeolitic fly ash: a comparative study",
D. Mitrogiannis, M. Psychogiou, G. Manthos, K. Tsigkou, M. E. Kornaros, N. Koukouzas, D. Michailidis, D. Palles, E. I. Kamitsos, C. Mavrogonatos, I. Baziotis,
J. Chem. Technol. Biotechnol. **2022**, 97, 1860.
DOI: [10.1002/jctb.7059](https://doi.org/10.1002/jctb.7059)
78. "The dual role of bismuth in $\text{Li}_2\text{O}-\text{Bi}_2\text{O}_3-\text{B}_2\text{O}_3$ glasses along the orthoborate join",
B. Topper, E. M. Tsekrekas, L. Greiner, R. Youngman, E. I. Kamitsos, D. Möncke,
J. Am. Ceram. Soc. **2022**, 105, 7302.
DOI: [10.1111/jace.18699](https://doi.org/10.1111/jace.18699)
79. "Thermodynamic properties of tellurite ($\beta\text{-TeO}_2$), paratellurite ($\alpha\text{-TeO}_2$), TeO_2 glass, and Te(IV) phases with stoichiometry $\text{M}_2\text{Te}_3\text{O}_8$, $\text{MTe}_6\text{O}_{13}$, MTe_2O_5 ($\text{M} = \text{Co}, \text{Cu}, \text{Mg}, \text{Mn}, \text{Ni}, \text{Zn}$)",
J. Majzlan, S. Notz, P. Haase, E. I. Kamitsos, N. S. Tagiara, E. Dachs,
Geochem. **2022**, 82, 125915.
DOI: [10.1016/j.chemer.2022.125915](https://doi.org/10.1016/j.chemer.2022.125915)
80. "Influence of phosphate on network connectivity and glass transition in highly polymerized aluminosilicate glasses",
T. Grammes, D. de Ligny, F. Scheffler, A. Nizamutdinova, L. van Wüllen, E. I. Kamitsos, J. Massera, D. S. Brauer,
J. Phys. Chem. B **2022**, 126, 9911.
DOI: [10.1021/acs.jpcc.2c06530](https://doi.org/10.1021/acs.jpcc.2c06530)
81. "Comparative studies of undoped/Al-doped/In-doped ZnO transparent conducting oxide thin films in optoelectronic applications",
P. Koralli, S. Fiat Varol, G. Mousdis, D. E. Mouzakis, Z. Merdan, M. Kompitsas,
Chemosensors **2022**, 10, 162.
DOI: [10.3390/chemosensors10050162](https://doi.org/10.3390/chemosensors10050162)
82. "Review of technology-specific degradation in c-Si, CdTe, CIGS, dye sensitised, organic and perovskite solar cells in photovoltaic modules: Understanding how reliability improvements in mature technologies can enhance emerging technologies",
J. Kettle, M. Aghaei, S. Ahmad, A. Fairbrother, S. Irvine, J. Jacobsson, S. Kazim, V. Kazukauskas, D. Lamb, K. Lobato, G. Mousdis, G. Oreski, A. Reinders, J. Schmitz, P. Yilmaz, M. Theelen,
Prog. Photovolt. Res. Appl. **2022**, 30, 1365.
DOI: [10.1002/ppp.3577](https://doi.org/10.1002/ppp.3577)
83. "Synthesis, crystal structure and broadband emission of $(\text{CH}_3)_3\text{SSnCl}_3$ ",

- M. Elsenety, A. Kaltzoglou, I. Koutselas, V. Psycharis, C. P. Raptopoulou, A. G. Kontos, K. Papadokostaki, N. K. Nasikas, P. Falaras,
Inorg. Chem. **2022**, *61*, 4769.
DOI: [10.1021/acs.inorgchem.2c00181](https://doi.org/10.1021/acs.inorgchem.2c00181)
84. “Silver decorated TiO₂/g-C₃N₄ bifunctional nanocomposites for photocatalytic elimination of water pollutants under UV and artificial solar light”,
I. Ibrahim, G. V. Belessiotis, M. Antoniadou, A. Kaltzoglou, E. Sakellis, F. Katsaros, L. Sygellou, M. K. Arfanis, T. M. Salama, P. Falaras,
Results Engin. **2022**, *14*, 100470.
DOI: [10.1016/j.rineng.2022.100470](https://doi.org/10.1016/j.rineng.2022.100470)
85. “Optimum coupling of photovoltaic devices and Peltier coolers for improved performance and stability”,
D. N. Kossyvakis, E. V. Christoforou, P. Falaras, A. Kaltzoglou,
Int. J. Sustain. Energy **2022**, *41*, 1667.
DOI: [10.1080/14786451.2022.2092481](https://doi.org/10.1080/14786451.2022.2092481)
86. “Temperature dependence of the vibrational and emission spectra in the 0D vacancy-ordered Cs₂SnI₆ perovskite”,
G. V. Belessiotis, M. Arfanis, A. Kaltzoglou, V. Likodimos, Y. S. Raptis, P. Falaras, A. G. Kontos
Mater. Today: Proc. **2022**, *67*, 971.
DOI: [10.1016/j.matpr.2022.07.260](https://doi.org/10.1016/j.matpr.2022.07.260)
87. “On the unusual temperature dependence of kaolinite intercalation capacity for N-methyl formamide”,
F. T. Andreou, E. Siranidi, A. Derkowski, G. D. Chryssikos,
Clays Clay Miner. **2022**, *70*, 796.
DOI: [10.1007/s42860-023-00217-9](https://doi.org/10.1007/s42860-023-00217-9)
88. “Regulating MDA-MB-231 breast cancer cell adhesion on laser-patterned surfaces with micro- and nanotopography”,
M. Kanidi, A. Papadimitropoulou, C. Charalampous, Z. Chakim, G. Tsekenis, A. Sinani, C. Riziotis, M. Kandyla,
Biointerphases **2022**, *17*, 021002.
DOI: [10.1116/6.0001564](https://doi.org/10.1116/6.0001564)
89. “Broadband wavelength-selective isotype heterojunction n⁺-ZnO/n-Si photodetector with variable polarity”,
G. Chatzigiannakis, A. Jaros, R. Leturcq, J. Jungclaus, T. Voss, S. Gardelis, M. Kandyla,
J. Alloy. Compd. **2022**, *903*, 163836.
DOI: [10.1016/j.jallcom.2022.163836](https://doi.org/10.1016/j.jallcom.2022.163836)
90. “Physical differences between man-made and cosmic microwave electromagnetic radiation and their exposure limits, and radiofrequencies as generators of biotoxic free radicals”,
C. D. Georgiou, E. Kalaitzopoulou, M. Skipitari, P. Papadea, A. Varemменou, V. Gavrili, E. Sarantopoulou, Z. Kollia, A. C. Cefalas,
Radiation **2022**, *2*, 285.
DOI: [10.3390/radiation2040022](https://doi.org/10.3390/radiation2040022)
91. “Universal Markers Unveil Metastatic Cancerous Cross-Sections at Nanoscale”,

E. Bakalis, A. Ferraro, V. Gavriil, F. Pepe, Z. Kollia, A.-C. Cefalas, U. Malapelle, E. Sarantopoulou, G. Troncone, F. Zerbetto,
Cancers **2022**, *14*, 3728.

DOI: [10.3390/cancers14153728](https://doi.org/10.3390/cancers14153728)

92. “Comparative assessment and experimental validation of a prototype phase-optical time-domain reflectometer for distributed structural health monitoring”, M. L. Filigrano, G. Piniotis, V. Gikas, V. Papavasileiou, C. J. Gantes, M. Kandyla, C. Riziotis,
J. Sensors **2022**, *2022*, 6856784.
DOI: [10.1155/2022/6856784](https://doi.org/10.1155/2022/6856784)
93. “Dynamic control of light chirality with nanostructured monolayer black phosphorus for broadband terahertz applications”, N. Matthaiakakis, S. Droulias, G. Kakarantzas,
Adv. Opt. Mater. **2022**, *10*, 2102273.
DOI: [10.1002/adom.202102273](https://doi.org/10.1002/adom.202102273)

2. Publications in Conference Proceedings

1. “First discovery of asimowite in an antarctic meteorite (GRO 17151, L6, Ordinary chondrite)”, I. Baziotis, S. Fliemetakis, S. Xydous, C. Sanchez-Valle, D. Palles, E. I. Kamitsos, K. Mavrogonatos, C. Vollmer, J. Berndt, S. Klemme, P. D. Asimow, Proceedings of the 53rd Lunar and Planetary Science Conference (LPSC); March 7–11, 2022. Lunar and Planetary Science XLVIII, pp. X/1-2 (2022).
2. “Synthesis, structure and properties of pure TeO₂ glass and tellurite glasses”, N. S. Tagiara, E. I. Kamitsos, Optical Materials Division Meeting - ACerS (May 22-26, 2022, Baltimore, USA); N. S. Tagiara - Nobert J. Kreidl Award for Young Scholars extended abstract, Am. Ceram. Soc. Bull. 101 (4), pp. 22-23 (2022).
3. “Fragments of luxury: Decorated glass from the Palace of Mystras, Greece”, E. Palamara, V. Valantou, D. Palles, E. I. Kamitsos, N. Zacharias, 7th ARCH-RNT Symposium on Archaeological Research and New Technologies; Kalamata, Greece; 6-8 October, 2022, pp. 1-12.
DOI: [10.2139/ssrn.4225774](https://doi.org/10.2139/ssrn.4225774)
4. “Temperature effect on the intercalation of kaolinite”, F. T. Andreou, E. Siranidi, A. Derkowski, G. D. Chryssikos, 13th Panhellenic Chemical Engineering Conference, Patras, Greece; June 2-4, 2022, pp. 1-5.

3. Book Chapters

1. “Progress in electronic-structure based computational methods: From small molecules to large molecular systems of biological significance”, L. Bytautas, D. J. Klein, D. Tzeli, M. Ferrer, J. Elguero, I. Alkorta, J. M. Oliva-Enrich, Frontiers in Computational Chemistry, Eds: Z. Ul-Haq, A. K. Wilson, Bentham Science, 2022, Vol. 6, pp. 235-284.
eISBN: 978-981-5036-84-8
DOI: [10.2174/9789815036848122060008](https://doi.org/10.2174/9789815036848122060008)

2. “Nanovesicular systems for protein and peptide delivery”,
T. Sentoukas, A. Skandalis, S. Pispas,
Applications of Nanovesicular Drug Delivery, Eds: A. K. Nayak, M. S. Hasnain,
T. M. Aminabhavi, V. Torchilin, Elsevier, 2022, Chapter 23, pp. 441–456.
ISBN: 978-0-323-91865-7
DOI: [10.1016/B978-0-323-91865-7.00022-5](https://doi.org/10.1016/B978-0-323-91865-7.00022-5)
3. “Targeting cellular and molecular mechanisms of nanovesicular systems for the treatment of different diseases”,
N. Pippa, H. Katifelis, M. Gazouli, S. Pispas,
Applications of Nanovesicular Drug Delivery, Eds: A. K. Nayak, M. S. Hasnain,
T. M. Aminabhavi, V. Torchilin, Elsevier, 2022, Chapter 1, pp. 1–20.
ISBN: 978-0-323-91865-7
DOI: [10.1016/B978-0-323-91865-7.00006-7](https://doi.org/10.1016/B978-0-323-91865-7.00006-7)
4. “Lipoplexes and polyplexes for targeted gene delivery”,
D. Selianitis, M. Kafetzi, N. Pippa, S. Pispas, M. Gazouli,
Pharmaceutical Nanobiotechnology for Targeted Therapy, Nanotechnology in the Life Sciences, Eds: H. Barabadi, E. Mostafavi, M. Saravanan, Springer Nature, 2022, Chapter 3, pp 65-92.
ISBN 978-3-031-12657-4, ISBN 978-3-031-12658-1 (eBook)
DOI: [10.1007/978-3-031-12658-1_3](https://doi.org/10.1007/978-3-031-12658-1_3)
5. “Bio-based and nanostructured hybrids for green and active food packaging”,
M.-N. Efthymiou, E. Tsouko, E. Vlasi, A. Papagiannopoulos, A. Koutinas, S. Pispas,
Bio and nano-sensing technologies for food processing and packaging, Eds.: A. K. Shukla, Royal Society of Chemistry, 2021, Chapter 5, p. 81.
ISBN: 978-1-83916-432-3
DOI: [10.1039/9781839167966-00081](https://doi.org/10.1039/9781839167966-00081)
6. “Applications of nanotechnology in Alzheimer’s disease”,
M. Chountoulesi, N. Naziris, A. Gioran, A. Papagiannopoulos, B. R. Steele, M. Micha-Screttas, S. G. Stavriniades, M. Haniyas, N. Chondrogianni, S. Pispas, C. Arbez-Gindre, C. Demetzos,
Handbook of Computational Neurodegeneration, Eds.: P. Vlamos, I. S. Kotsireas, I. Tarnanas, Springer, 2022, Chapter 6, p. 1.
ISBN: 978-3-319-75479-6
DOI: [10.1007/978-3-319-75479-6_16-1](https://doi.org/10.1007/978-3-319-75479-6_16-1)
7. “Polymeric bionanomaterials for diabetes applications”,
Papagiannopoulos, E. Stefanopoulou, E. Vlasi, S. Pispas,
Bionanotechnology: Emerging Applications of Bionanomaterials, Micro and Nano Technologies, Eds.: A. Barhoum, J. Jeevanandam, M. K. Danquah, Elsevier, 2022, Section 3: Biomedical Applications, Chapter 9, p. 305.
ISBN: 978-0-12-823915-5
DOI: [10.1016/B978-0-12-823915-5.00013-7](https://doi.org/10.1016/B978-0-12-823915-5.00013-7)
8. “Biological macromolecules for growth factor delivery in bone regeneration”,
A. Papagiannopoulos, E. Vlasi,
Biological Macromolecules: Bioactivity and Biomedical Applications, Eds.: A. K. Nayak, A.K. Dhara, D. Pal, Elsevier, Academic Press, 2022, Chapter 19, p. 439.

ISBN: 978-0-323-85759-8

DOI: [10.1016/B978-0-323-85759-8.00019-1](https://doi.org/10.1016/B978-0-323-85759-8.00019-1)

9. “Nanogels as theranostic platforms: Drug delivery, targeting and imaging”,
A. Papagiannopoulos, E. Stefanopoulou,
Theranostic Nanosystems Vol. 3: Advanced Nanoformulations, Eds.: S. Hasnain, A. K. Nayak, T. M. Aminabhavi, Elsevier, 2022, Vol. 3, Chapter 7.
ISBN: 9780323857857
10. “Nanocellulose production from different sources and their self-assembly in composite materials”,
D. Selianitis, M.-N. Efthymiou, E. Tsouko, A. Papagiannopoulos, A. Koutinas, S. Pispas,
Handbook of Nanocelluloses, Eds.: A. Barhoum, Springer, 2022, Chapter 16, p.
ISBN: 978-3-030-62976-2
DOI: [10.1007/978-3-030-62976-2_7-1](https://doi.org/10.1007/978-3-030-62976-2_7-1)
11. “Role of nanospectroscopy in the development of 3rd generation photovoltaics”,
A. Kaltzoglou, A. G. Kontos, P. Falaras,
Optical Nanospectroscopy – Applications, Eds.: A. Meixner, M. Fleischer, D. Kern, E. Sheremet, N. McMillan, de Gruyter Publisher, 2022, Chapter 2.2, p. 43.
ISBN: 978-3110442892.
DOI: [10.1515/9783110442908-004](https://doi.org/10.1515/9783110442908-004)

4. **Books**

5. **Dissertations**

a. **PhD theses**

b. **MSc theses**

1. “Computational spectroscopic study of tetraphenyl porphyrins in solution and on 2D-MoS₂ surface”,
E. Papamichalis,
Supervisor: Dr. D. Tzeli,
Department of Chemistry, National and Kapodistrian University of Athens (06.2022).
2. “Mixed copolymer-based micelles for the encapsulation of hydrophobic drugs”,
A. M. Gerardos,
Supervisor: Dr. S. Pispas,
School of Medicine, National and Kapodistrian University of Athens (09.2022).
3. “Preparation and physicochemical characterization hydrogel of polysaccharites with enclosed clay nanoparticles”,
S. P. Nikolakis.
Supervisor: Dr. A. Papagiannopoulos,
Department of Chemistry, National and Kapodistrian University of Athens (09.2022).
4. “Adulteration control and geographic-botanical categorization in honey by simultaneous scanning fluorimetry (SFS)”,
E. Kotos,

Supervisor: Dr. G. A. Mousdis,
Department of Chemistry, National and Kapodistrian University of Athens
(10.2022).

c. Diploma theses

1. “Development of titanium dioxide (TiO₂) nanopowders: Application in the manufacture of films for the study of photocatalytic decomposition of water pollutants”,
I. Kosma,
Supervisor: Dr. G. A. Mousdis,
School of Mining and Metallurgical Engineering, Department of Metallurgy and Material Science, National Technical University of Athens (07.2022).
2. “Development of a robust structural health monitoring framework for detecting damages in cylindrical geometries”,
N. Cholevas
Supervisor: Dr. C. Riziotis
School of Naval Architecture and Marine Engineering, National Technical University of Athens (12.2022)

d. Internships

1. “Modified molybdenum disulfide as receptor for electrochemical recognition of barbiturate derivatives”,
A. Liapi,
Supervisor: Dr. N. Tagmatarchis,
Department of Materials Science, University of Patras (07-09.2021).
2. “Supramolecular complexation of azafullerene with para-cyclophenylene rings for electrocatalytic applications”,
I. Maniatis,
Supervisor: Dr. N. Tagmatarchis,
Department of Chemistry, University of Patras (07-09.2021).
3. “Electrostatic complexes between PMAA stars and lysozyme in aqueous media”,
D. Fotaki,
Supervisor: Dr. S. Pispas,
Department of Physics, University of Ioannina (07-08.2022).
4. “Physicochemical characterization of polymer functionalized gellan”,
M. Trofin,
Supervisor: Dr S. Pispas,
“Petru Poni” Institute of Macromolecular Chemistry, Iasi, Romania (09-10.2022).
5. Synthesis of organic ligand (L) modified RE-TiO₂ (RE: Er, Sm, Pr)
Rostom Lakhder
Supervisor: Dr G. A. Mousdis,
Faculté des Sciences – Université of Gafsa-Tunisia (10-12.2022).
6. “Synthesis and characterization of materials for photovoltaic and thermoelectric applications”,
N. Potiris,
Supervisor: A. Kaltzoglou

School of Mining & Metallurgical Engineering, National Technical University of Athens (07.2022).

7. “Infrared characterization of clay minerals”,
I. Efstathiadis,
Supervisor: G. D. Chryssikos,
Department of Geology, National and Kapodistrian University of Athens (02-12.2022).
8. “Development of wavelength-selective photodetectors based on Si/ZnO heterodiodes”,
Danae Spathi,
Supervisor: Dr. M. Kandyla,
School of Electrical and Computer Engineering, National Technical University of Athens (09-10.2022).
9. “Development of wavelength-selective photodetectors based on Si/ZnO heterodiodes”,
Achilleas Peolidis,
Supervisor: Dr. M. Kandyla,
School of Electrical and Computer Engineering, National Technical University of Athens (09-10.2022).
10. “Many-body analysis of elementary particles in the atomic nucleus”,
T. Depastas,
Supervisor: Dr. D. Tzeli,
Department of Chemistry, National and Kapodistrian University of Athens (05-08.2022).

6. Conference Presentations

1. “Successes and failures of ReaxFF potentials for 3-fold coordinated carbon systems and graphene interactions with small molecules and atoms”,
Z. G. Fthenakis*, I. D. Petsalakis, V. Tozzini, N. N. Lathiotakis,
AutoCheMo International Reactive Force Field Workshop, Ghent, Belgium,
December 8, 2021 (oral).
2. “An algorithm for the generation, identification and enumeration of graphene pores, flakes and edges in an effective and systematic way”,
Z. G. Fthenakis*,
33rd IUPAP Conference on Computational Physics (CCP2022), The University of Texas at Austin, Texas, USA, August 1-4, 2022 (oral).
3. “Density inversion method for local basis sets without potential auxiliary functions”,
S. Bousiadi*, N. N. Lathiotakis,
PSI-K conference, EPFL, Lausanne, Switzerland, August 22-25, 2022 (poster).
4. “Gas separation utilizing graphene membranes: a theoretical study”,
Z. G. Fthenakis*, A. Fountoulakis, I. D. Petsalakis, N. N. Lathiotakis,
European Assembly of Advanced Materials Congress, Stockholm, Sweden,
August 28-31, 2022 (invited talk).
5. "Temperature Dependent Resonant Raman Scattering in 2D - TMDCs",
A. Michail*, E. Katsarou, D. Sitaridis, L. Seremetis, N. N. Lathiotakis, J.

- Parthenios, K. Papagelis,
XXXVI Pan-Hellenic conference on Solid-State Physics and Materials Science
Heraklion, Crete, Greece, September 26-28, 2022 (oral).
6. “Strain-induced frequency shifts of the second order Raman modes of monolayer WS₂”,
A. Michail*, K. Filintoglou, N. Balakeras, N. N. Lathiotakis, J. Parthenios, K. Papagelis,
XXXVI Pan-Hellenic conference on Solid-State Physics and Materials Science
Heraklion, Crete, Greece, September 26-28, 2022 (poster).
 7. “Multiscale Computational study of 5-fluorouracil delivery by zeolite imidazole frameworks (ZIFs)”,
M. Vlachos*, E. Tylianakis, E. Klontzas, M. Severi, G. Turtu, F. Zerbetto, G. Froudakis,
36th Panhellenic Conference on Solid State Physics and Materials Science, Virtual
Conference, September 26-29, 2022 (poster).
 8. “Multi-scale modeling of complex systems”
A. Rissanou*,
Online Workshop on Computational Materials Science, Department of Materials
Science and Technology, University of Ioannina, Greece, December 10, 2022
(oral).
 9. “Effects of the structure of lipid-based agents in their complexation with a single
stranded mRNA fragment as studied by molecular dynamics simulations”
A. Rissanou*,
12th Panhellenic Conference on Biomaterials, Athens, Greece, December 15-17,
2022 (oral).
 10. “Computational study of Fe_xS_y clusters”
M. A. Mermigki*, D. Tzeli,
1st Symposium of Graduate Students of the Chemistry Department, National and
Kapodistrian University of Athens, Greece, March 17-18, 2022 (oral).
 11. “Conformational properties of new thiosemicarbazone and thiocarbohydrazone
derivatives and their possible targets”
N. Georgiou*, A. Katsogiannou, D. Tzeli, S. Vassiliou, T. Mavromoustakos,
1st Symposium of Graduate Students of the Chemistry Department, National and
Kapodistrian University of Athens, Greece, March 17-18, 2022 (oral).
 12. “Theoretical investigation of MoO”
A. Androutsopoulos*, T. Depastas, D. Tzeli,
1st Symposium of Graduate Students of the Chemistry Department, National and
Kapodistrian University of Athens, Greece, March 17-18, 2022 (oral).
 13. “The bonding and spectroscopy of MoC, Mo₂ and Mo₂Cl_n (n=2-10): An ab initio
study”,
T. Depastas*, A. Androutsopoulos, D. Tzeli
1st Symposium of Graduate Students of the Chemistry Department, National and
Kapodistrian University of Athens, Greece, March 17-18, 2022 (poster).
 14. “A 3-input AND molecular logic gate with enhanced fluorescence output: The key
atom for the accurate prediction of the spectra”,
C. Tzeliou*, D. Tzeli,

- 1st Symposium of Graduate Students of the Chemistry Department, National and Kapodistrian University of Athens, Greece, March 17-18, 2022 (poster).
15. “DFT and Semiempirical Calculations: Powerful tools for drug and materials”
D. Tzeli*,
2nd BRFAA Mini Symposium: Computational methods in drug and materials design, Biomedical Research Foundation of the Academy of Athens, Greece, June 20, 2022 (oral).
 16. “Electronic structure and bonding properties of iron-sulfur model complexes: [Fe(SMe)₄]^q, [Fe₂S₂(SMe)₄]^q, [Fe₃S₄(SMe)₃]^q, & [Fe₄S₄(SMe)₄]^q”,
D. Tzeli*,
Athens Conference on Advances in Chemistry (acac2022), Department of Chemistry, National and Kapodistrian University of Athens, Greece, June 26 – July 1, 2022 (oral).
 17. “First-principles exploration of the MoX (X = Li, Be, B, C, N, O, F) diatomic molecules”,
A. Androutsopoulos*, T. Depastas, D. Tzeli,
Athens Conference on Advances in Chemistry (acac2022), Department of Chemistry, National and Kapodistrian University of Athens, Greece, June 26 – July 1, 2022 (poster).
 18. “The effect of transition metals on the absorption spectra of metallocene-naphthalimide derivatives”,
C. E. Tzeliou*, D. Tzeli,
Athens Conference on Advances in Chemistry (acac2022), Department of Chemistry, National and Kapodistrian University of Athens, Greece, June 26 – July 1, 2022 (poster).
 19. “Computational Study of triatomic FeS₂ and MoS₂ molecules”,
M. A. Mermigki*, I. Karapetsas, D. Tzeli,
Athens Conference on Advances in Chemistry (acac2022), Department of Chemistry, National and Kapodistrian University of Athens, Greece, June 26 – July 1, 2022 (poster).
 20. “Structure assignment, conformational analysis and discovery of potential targets of the thiosemicarbazone and thiocarbohydrazone derivatives”,
N. Georgiou*, A. Katsogiannou, D. Tzeli, S. Vassiliou, U. Javornik, J. Plavec, T. Mavromoustakos,
Athens Conference on Advances in Chemistry (acac2022), Department of Chemistry, National and Kapodistrian University of Athens, Greece, June 26 – July 1, 2022 (oral).
 21. “Molecular studies on lipoxygenase enzyme and its potent inhibitors”,
E. Chontzopoulou*, C. Papaemmanouil, M. V. Chatziathanasiadou, D. Kolokouris, S. Kiriakidi, A. Konstantinidi, I. K. Kostakis, E. D. Chrysinia, D. Hadjipavlou-Litina, D. Tzeli, A. G. Tzakos, J. Jose Nogueira Perez, T. Mavromoustakos,
Athens Conference on Advances in Chemistry (acac2022), Department of Chemistry, National and Kapodistrian University of Athens, Greece, June 26 – July 1, 2022 (oral).
 22. “Quadruple and sextuple bonds in diatomic molecules”,
D. Tzeli*,

- DEEP-GAS 2022: Dynamics of Energetic & Electronic Processes in molecules and clusters in the GAS phase, Madrid, Spain, October 4-7, 2022 (oral).
23. “The key atom for the accurate prediction of the absorption and emission spectra of a 3-input AND molecular logic gate”
C. E. Tzeliou, D. Tzeli*,
DEEP-GAS 2022: Dynamics of Energetic & Electronic Processes in molecules and clusters in the GAS phase, Madrid, Spain, October 4-7, 2022 (poster).
 24. “Controlled chemical functionalization toward 3D-2D carbon nanohorn-MoS₂ heterostructures with enhanced electrocatalytic activity for protons reduction”,
A. Kagkoura*, R. Arenal, N. Tagmatarchis,
NT22: The 22nd International Conference on the Science and Applications of Nanotubes and Low-Dimensional Materials, Suwon, Republic of Korea, June 19-24, 2022 (poster).
 25. “Chemically modified carbon nanostructures as carriers of enhanced qualities for fabrics performing under critical operational conditions”,
A. Kagkoura*, C. Stangel, S. Vasilakos, D. Siamidis, S. Pavlidou, N. Iliopoulos, P. Perimenis, N. Tagmatarchis,
NT22: The 22nd International Conference on the Science and Applications of Nanotubes and Low-Dimensional Materials, Suwon, Republic of Korea, June 19-24, 2022 (poster).
 26. “Engineered graphene featuring covalently incorporated amphoteric imidazole rings and electrostatically immobilised polyacrylic acid chains for selective electrochemical hydrogen peroxide production”,
I. K. Sideri*, M.-L. Vorvila, A. Stergiou, M. Kafetzi, S. Pispas, R. Arenal, N. Tagmatarchis,
NT22: The 22nd International Conference on the Science and Applications of Nanotubes and Low-Dimensional Materials, Suwon, Republic of Korea, June 19-24, 2022 (poster).
 27. “Chemical functionalization of two-dimensional transition metal disulfides”,
R. Canton-Vitoria*, N. Tagmatarchis,
X Mediterranean Organic Chemistry Meeting”, Valencia, Spain, October 19-21, 2022 (oral).
 28. “Thermoresponsive linear and hyperbranched copolymers using RAFT polymerization”,
S. Pispas*,
POLYMAT 2022, Zabrze, Poland, March 12, 2022 (invited lecture).
 29. “Hyperbranched copolymers by RAFT: Synthesis and solution nano-assemblies”,
S. Pispas*,
POLYMERS 2022, Velingrad, Bulgaria, July 5-8, 2022 (invited lecture).
 30. “Functional nanostructures based on smart copolymers”,
S. Pispas*,
7th Edition Smart Materials and Surfaces, Athens, Greece, October 26-28, 2022 (invited lecture).
 31. “Thermo-responsive self-assembled micelles from diblock copolymers”,
Y. Li*, V. Chrysostomou, S. Da Vela, S. Pispas, C. M. Papadakis,
EUPOC 2022, Bertinoro, Italy, May 15-19, 2022 (poster).

32. "Utilization of thermal analysis to the evaluation of lyotropic lipidic liquid crystalline nanostructures intended for drug delivery applications",
M. Chountoulesi*, D. R. Perinelli, A. Forys, N. Pippa, V. Chrysostomou, G. Bonacucina, B. Trzebicka, S. Pispas, C. Demetzos,
13th European Symposium for Thermal Analysis and Calorimetry, September 19-22, 2022 (oral).
33. "Association between albumin and chimeric lipid nanosystems",
N. Naziris*, Ł. Balcerzak, V. Chrysostomou, S. Pispas, M. Ionov, M. Bryszewska,
18th Congress of the Polish Biophysical Society, Warsaw, Poland, September 6-9, 2022 (poster).
34. "Hyperbranched copolymer colloids",
A. Balafouti, D. Selianitis, S. Pispas*,
36th European Colloid & Interface Society Conference-ECIS 2022, Chania, Greece, September 4-9, 2022 (oral).
35. "Development of double hydrophilic block copolymer/porphyrin ion complex micelles towards photofunctional nanoparticles",
M. Karayianni*, D. Koufi, S. Pispas,
36th European Colloid & Interface Society Conference-ECIS 2022, Chania, Greece, September 4-9, 2022 (oral).
36. "Dual-responsive P(DEGMA-co-DIPAEMA) hyperbranched copolymers as drug-loaded self-assembled nanocarriers",
D. Selianitis*, S. Pispas,
36th European Colloid & Interface Society Conference-ECIS 2022, Chania, Greece, September 4-9, 2022 (poster).
37. "The micellization of well-defined single graft copolymers in block copolymer/homopolymer blends",
E. Pavlopoulou*, K. Chrissopoulou, S. Pispas, N. Hadjichristidis, S. Anastasiadis,
36th European Colloid & Interface Society Conference-ECIS 2022, Chania, Greece, September 4-9, 2022 (poster).
38. "Poly[oligo(ethylene glycol) methacrylate]-b-poly[(vinyl benzyl trimethylammonium chloride)]-based ternary hybrid complexes encapsulating magnetic nanoparticles and DNA",
A. Chroni*, A. Forys, B. Trzebicka, A. Alemayehu, V. Tyrpekl, S. Pispas,
Athens Conference in Advances in Chemistry-ACAC 2022, Athens, Greece, June 26-July 1, 2022 (oral).
39. "Novel hyperbranched amphiphilic P(OEGMA-co-MAA-co-tBMA) copolymers via RAFT polymerization",
A. Balafouti*, S. Pispas,
Athens Conference in Advances in Chemistry-ACAC 2022, Athens, Greece, June 26-July 1, 2022 (poster).
40. "Hydrophilic random cationic copolymers as DNA carriers",
V. Chrysostomou*, H. Katifelis, M. Gazouli, K. Dimas, C. Demetzos, S. Pispas,
Athens Conference in Advances in Chemistry-ACAC 2022, Athens, Greece, June 26-July 1, 2022 (poster).
41. "Mixed copolymer-based micelles for the encapsulation of curcumin",
A. M. Gerardou*, A. Balafouti, S. Pispas,

- Athens Conference in Advances in Chemistry-ACAC 2022, Athens, Greece, June 26-July 1, 2022 (poster).
42. “Mixed copolymer-based micelles, a promising avenue for drug delivery applications”,
A. M. Gerardou*, A. Balafouti, S. Pispas,
1st Hellenic Conference on Medicinal Physics, Athens, Greece, September 23-25, 2022 (poster).
 43. “Biopolymer based hybrid nanostructures incorporating lanthanide ions with diagnostic imaging potential”,
M. Karayianni*, S. Pispas,
12th Hellenic Conference on Biomaterials, Athens, Greece, December 15-17, 2022 (oral).
 44. “Influence of non-ionic surfactants on the inherent properties of Pluronic 188. Biocompatibility, physicochemical and thermal properties”,
O. Kontogiannis*, D. Selianitis, N. Pippa, M. Gazouli, S. Pispas,
12th Hellenic Conference on Biomaterials, Athens, Greece, December 15-17, 2022 (oral).
 45. “Preparation and physicochemical characterization of hybrid systems from PEO-b-PCL block copolymers and cyclodextrines”,
E. M. Seitani*, D. Selianitis, N. Pippa, G. Valsami, S. Pispas,
12th Hellenic Conference on Biomaterials, Athens, Greece, December 15-17, 2022 (oral).
 46. “Pre-formulation and formulation studies on DSPC:DOPC:P(OEGMA-DIPAEMA) hybrid nanoparticles”,
E. Triantafyllopoulou*, D. Selianitis, G. Valsami, S. Pispas, N. Pippa,
12th Hellenic Conference on Biomaterials, Athens, Greece, December 15-17, 2022 (oral).
 47. “Doubly responsive P(DEGMA-co-DIPAEMA) hyperbranched copolymers. Self-assembly and complexation with DNA”,
D. Selianitis*, S. Pispas,
12th Hellenic Conference on Biomaterials, Athens, Greece, December 15-17, 2022 (oral).
 48. “Amphiphilic copolymer-lipid chimeric nanosystems as DNA vectors”,
V. Chrysostomou*, A. Foryś, B. Trzebicka, C. Demetzos, S. Pispas,
12th Hellenic Conference on Biomaterials, Athens, Greece, December 15-17, 2022 (poster).
 49. “Electrostatic complexation between zwitterionic grafted gellan gum and zein”,
M. A. Trofin, M. Karayianni*, S. Vasiliu, S. Racoviță, M. Mihai, S. Pispas,
12th Hellenic Conference on Biomaterials, Athens, Greece, December 15-17, 2022 (poster).
 50. “Mixed copolymer-based micelles: innovative formulation strategies for drug delivery and imaging”,
A. M. Gerardos*, A. Balafouti, S. Pispas,
12th Hellenic Conference on Biomaterials, Athens, Greece, December 15-17, 2022 (poster).
 51. “Nanogels from complexation between a random terpolymer and tannic acid for

- drug delivery”,
D. Vagenas*, S. Pispas,
12th Hellenic Conference on Biomaterials, Athens, Greece, December 15-17,
2022 (poster).
52. “Novel hyperbranched P(OEGMA-co-tBMA-co-MAA) copolymers and their potential as biomaterials”,
A. Balafouti*, S. Pispas,
12th Hellenic Conference on Biomaterials, Athens, Greece, December 15-17,
2022 (poster).
53. “Physicochemical and spectroscopic characterization of glycogen and glycogen phosphorylase complexes”,
P. Karakousi*, M. Karayianni, E. D. Chrysina, S. Pispas,
12th Hellenic Conference on Biomaterials, Athens, Greece, December 15-17, 2022
(poster).
54. “Tailored-made random DMAEMA/OEGMA nanocarriers for complexation with ovalbumin”,
A. Vardaxi*, S. Pispas,
12th Hellenic Conference on Biomaterials, Athens, Greece, December 15-17,
2022 (poster).
55. “Preparation of magnetic ternary DNA nanohybrids based on a biocompatible poly[(vinyl benzyl trimethylammonium chloride)] polyelectrolyte”,
A. Chroni*, A. Forys, B. Trzebicka, A. Alemayehu, V. Tyrpekl and S. Pispas,
12th Hellenic Conference on Biomaterials, Athens, Greece, December 15-17, 2022
(poster).
56. “Development of nanoparticles and multilayer films from polysaccharides and proteins for applications in pharmaceutical and food sciences”,
A. Papagiannopoulos*,
12th Conference of the Hellenic Society of Biomaterials, Athens, Greece,
December 15-17, 2022 (invited, keynote presentation).
57. “Investigation of albumin/carrageenan multilayer biopolymer system”,
A. Syrrakou*, A. Papagiannopoulos,
12th Conference of the Hellenic Society of Biomaterials, Athens, Greece,
December 15-17, 2022 (poster).
58. “Nanoparticles from hemoglobin and chondroitin sulfate: electrostatic complexation, thermal stabilization and interaction with bioactive substances”,
A. Sklapani*, A. Papagiannopoulos,
12th Conference of the Hellenic Society of Biomaterials, Athens, Greece,
December 15-17, 2022 (poster).
59. “Small angle scattering methods for nanostructured complex biomaterials”,
A. Papagiannopoulos*,
12th Conference of the Hellenic Society of Biomaterials, Athens, Greece,
December 15-17, 2022 (oral).
60. “Preparation of nanoparticles through electrostatic interaction with the biopolymer chitosan”,
A. Chroni*, D. Selianitis, M. Karagianni, A. Papagiannopoulos, S. Pispas, D. Giaouzi, D. Tsiriva, L. Laskaridis,

- 12th Conference of the Hellenic Society of Biomaterials, Athens, Greece, December 15-17, 2022 (poster).
61. “Alternating multilayers of polysaccharides and proteins at the solid/water interface with potential in biomedical sciences”,
A. Papagiannopoulos*,
International Online Conference on Nano Materials (ICN 2022), Kottayam, Kerala, India, August 12-14, 2022 (invited talk).
 62. “Synthesis, structure and properties of pure TeO₂ glass and tellurite glasses”,
N. S. Tagiara*, E. I. Kamitsos,
Optical Materials Division Meeting - ACerS (May 22-26, 2022, Baltimore, USA (Invited Lecture, N.S. Tagiara - Nobert J. Kreidl Award for Young Scholars).
 63. “Introduction to IR reflectance spectroscopy and its use in glass studies”,
E. I. Kamitsos*,
MetMat2022: Training Workshop on Methods and Materials for Clean Technologies, Sandanski, Bulgaria, September 7-10, 2022; hybrid conference (plenary lecture).
 64. “Fragments of luxury: Decorated glass from the Palace of Mystras, Greece”,
E. Palamara*, V. Valantou, D. Palles, E. I. Kamitsos, N. Zacharias,
7th ARCH-RNT Symposium on Archaeological Research and New Technologies; Kalamata, Greece; October 6-8, 2022 (oral).
 65. “Detailed compositional and Raman study of high-pressure minerals in shocked Chondrite North West Africa 12841 (L6)”,
I. Baziotis*, L. Ferrière, D. Topa, D. Palles, C. Ma, J. Hu, E. I. Kamitsos, P. D. Asimow,
23rd International Mineralogical Association (IMA) General Meeting, Lyon, France, July 18-22, 2022 (oral).
 66. “Structural study of ZnO-B₂O₃-WO₃ glasses modified with Nb₂O₅”,
M. Milanova*, R. Iordanova, L. Alexandrov, D. Palles, E. I. Kamitsos,
16th International Conference on the Physics of Non-Crystalline Solids (PNCS16), Canterbury, UK, July 10-16, 2022 (poster).
 67. “Graph theoretical analysis as an aid in the elucidation of structure-property relations of perovskite materials”,
V. Raptis*, A. Kaltzoglou,
18th International Conference of Computational Methods in Sciences and Engineering, Heraklion, Greece, October 26-29, 2022 (oral).
 68. “Vibrational study of the halloysite-(10Å) to -(7Å) transition”,
E. Siranidi*, G. D. Chryssikos, S. Hillier,
XVII International Clay Conference, Istanbul, Turkey, July 25-29, 2022 (oral).
 69. “Temperature dependence of intercalation capacity of kaolinite”,
F. T. Andreou*, E. Siranidi, A. Derkowski, G. D. Chryssikos,
XVII International Clay Conference, Istanbul, Turkey July 25-29, 2022 (oral).
 70. “In-situ H/D exchange in clays by infrared spectroscopy”,
G. D. Chryssikos*, E. Siranidi,
10th Mid-European Clay Conference, Kliczkow, Poland, September 11-15, 2022 (oral).

71. “New aspects of kaolinite intercalation by NIR spectroscopy”,
E. Siranidi*, F.T. Andreou, G.D. Chryssikos, A.D. Derkowski
10th Mid-European Clay Conference, Kliczkow, Poland, September 11-15, 2022
(oral).
72. “Broadband wavelength-selective isotype heterojunction n⁺-ZnO/n-Si
photodetector”,
G. Chatzigiannakis, A. Jaros, R. Leturcq, J. Jungclaus, T. Voss, S. Gardelis, M.
Kandyla*,
8th International Symposium on Transparent Conductive Materials TCM-TOEO,
Hersonissos, Greece, October 16-21, 2022 (oral).
73. “Laser micro/nano processing for photonics, optoelectronics, and smart
surfaces”,
M. Kandyla*,
36th Panhellenic Conference on Solid-State Physics and Materials Science,
Heraklion, Greece, September 26-28, 2022 (invited talk).
74. “Measuring optical forces using single beam optical tweezers”,
T. Giannakis*, M. Kandyla,
36th Panhellenic Conference on Solid-State Physics and Materials Science,
Heraklion, Greece, September 26-28, 2022 (poster).
75. “Regulating breast cancer cell adhesion on laser-patterned surfaces”,
M. Kanidi, A. Papadimitropoulou, C. Charalampous, Z. Chakim, G. Tsekenis, A.
Sinani, C. Riziotis, M. Kandyla*,
European Materials Research Society (E-MRS) Spring Meeting, Virtual
Conference, May 30-June 3, 2022 (oral).
76. “Wavelength-selective isotype heterojunction n⁺-ZnO/n-Si photodetector”,
G. Chatzigiannakis, A. Jaros, R. Leturcq, J. Jungclaus, T. Voss, S. Gardelis, M.
Kandyla*,
European Materials Research Society (E-MRS) Spring Meeting, Virtual
Conference, May 30-June 3, 2022 (oral).
77. “Viscoelastic properties of stored red blood cells using single beam optical
tweezers”,
T. Giannakis*, M. Kandyla,
European Materials Research Society (E-MRS) Spring Meeting, Virtual
Conference, May 30-June 3, 2022 (poster).
78. “Formamidinium lead bromide perovskite as visible-light detector”,
A. Anastasopoulos, A. Kaltzoglou, A. Sinani, A. Bogris, C. Riziotis, M. Kandyla*,
36th Panhellenic Conference on Solid-State Physics and Materials Science,
Heraklion, Greece, September 26-28, 2022 (poster).
79. “Engineering optical structures and functional materials towards photonic devices
development”,
C. Riziotis*,
7th Edition Smart Materials and Surfaces / Sensors 2022- SMS Conference &
Exhibition, SMS 2022, Athens, Greece, October 26-28, 2022 (invited, keynote
talk).
80. “Gene p53 tissue microarray based protein expression analysis combined with
chromosome 17 chromogenic in situ hybridization analysis in meningiomas ”,

E. Tsiambas*, D. Roukas, C. Riziotis, A. Kouzoupis, A. Stamatelopoulos, P. Fotiadis, A. Lazaris, N. Kavantzias,
28th Hellenic Military Medical Congress, November 2022, Thessaloniki, Greece
(Awarded the Prize “Georgios PAPANIKOLAOU”) (oral).

81. “Functionalization of optical fibers: The role of new materials”,
G. Antonopoulos, E. Bakoglou, G. Kakarantzias*,
25th World General Congress for Optics and Photonics of the International
Commission for Optics (ICO) and the 16th International Conference on Optics
Within Life Sciences (OWLS), ICO-25-OWLS-16. Dresden, Germany, September
5-9, 2022 (invited talk).

7. Wider Public Dissemination

1. Application of quantum mechanics/molecular mechanics methodologies to metalloproteins
C. E. Tzeliou, M. A. Mermigki, D. Tzeli,
Online encyclopedia: <https://encyclopedia.pub/entry/22516>
2. “Chemically modified two-dimensional nanomaterials for managing charge-transfer phenomena and for energy conversion applications”,
E. Nikoli, R. Canton-Vitoria, N. Tagmatarchis,
Researchers Night, NTUA, Athens, Greece, September 30, 2022.
3. “Introduction to vibrational spectroscopy”,
E. I. Kamitsos,
International Year of Glass 2022 / International Graduate Course on the Structure of Glass, Organized by Prof. Steve Martin (Iowa State University) and distinguished scientists, under the auspices of the American Ceramic Society (ACerS) and the International Commission on Glass (ICG), Sept. 6 – Dec. 15, 2022; Virtual Graduate Course. E. I. Kamitsos: Invited 90 minutes lecture, October 13, 2022.
4. “Infrared spectroscopy”,
E. I. Kamitsos,
International Year of Glass 2022 / International Graduate Course on the Structure of Glass, Organized by Prof. Steve Martin (Iowa State University) and distinguished scientists, under the auspices of the American Ceramic Society (ACerS) and the International Commission on Glass (ICG), Sept. 6–Dec. 15, 2022; Virtual Graduate Course. E. I. Kamitsos: Invited 90 minutes lecture, October 18, 2022.
5. “Sensors: Building blocks of automation technology”,
G. A. Mousdis,
National Hellenic Research Foundation, Science in Society Lectures, Athens, Greece, 6 December 20, 2022.
6. “Sensors: Building blocks of automation technology”,
G. A. Mousdis,
Physics Enchants, University of Western Attica, Athens, Greece, December 16-18, 2022.
7. “Photovoltaics - The energy source of the future”,
G. A. Mousdis
Summer School of Aegina, Union of Greek Physicists, Greece, June 29 – July 1,

2022.

8. “Materials and devices for light detectors”,
A. Kaltzoglou,
National Hellenic Research Foundation, Science in Society Lectures, Athens,
Greece, December 13, 2022.
9. Sensor development via laser processing: dangerous and medical gas sensing and
structural health monitoring”,
M. Kandyla,
National Hellenic Research Foundation, Science in Society Lectures, Athens,
Greece, December 20, 2022.
10. “Nanoscale prognosis of colorectal cancer metastasis from AFM image processing
of histological sections”,
V. Gavriil, A. Ferraro, A.C. Cefalas, Z. Kollia, F. Pepe, U. Malapelle, C. De Luca,
G. Troncone, E. Sarantopoulou,
bioRxiv 2022, 05.06, 490873.
DOI: [10.1101/2022.05.06.490873](https://doi.org/10.1101/2022.05.06.490873)
11. “Development and application of the innovative Grid technology in cytological
diagnosis of PAP TEST”,
C. Riziotis,
Special Anniversary Scientific Conference “Knowledge and Prevention for
Modern Woman”,
Amphitheatre of the 417 Army Veterans General Hospital (NIMTS), May 24,
2022. (Award to Dr. C. Riziotis with presentation of the honorary military plaque
of NIMTS).
12. “PAP TEST: Development of innovative microscopy grid for cytological diagnosis
by Greek researchers”,
C. Riziotis, E. Tsiambas
Greek Medical Magazine “about health / περί υγείας”, September 2022, Issue 22,
p. 23.