ΤΡCI (ΙΘΦΧ) 2021

1. Publications in Refereed Journals

1. "Defect processes in halogen doped SnO_2",
P. P. Filippatos, N. Kelaidis, M. Vasilopoulou, D. Davazoglou, A. Chroneos,
Appl. Sci. **2021**, *11*, 551.
DOI: 10.3390/app11020551

2. "Structural, electronic, and optical properties of group 6 doped anatase TiO_2: A theoretical approach",
P. P. Filippatos, N. Kelaidis, M. Vasilopoulou, D. Davazoglou, A. Chroneos,
Appl. Sci. **2021**, *11*, 1657.
DOI: 10.3390/app11041657

3. "High temperature stability, metalic character and bonding of Si_2BN planar structure"
Z. G. Fthenakis, M. Jaishi, B. Narayanan, A. N. Andriotis, M. Menon,
J. Phys. Cond. Matter **2021**, *33*, 165001.
DOI: 10.1088/1361-648x/abdbe9

4. "N,N- and N,O-6-Membered ring peri-annelation in naphthalene. Is it a heteroring or merely a peri- heterobridge?"
D. Tzeli, P. G. Tsoungas,
Che. Select **2021**, *6*, 951.
DOI: 10.1002/slct.202004237

5. "Preparation of hydrogen, fluorine and chlorine doped and Co-doped titanium dioxide photocatalysts: A theoretical and experimental approach",
P. P. Filippatos, A. Soultati, N. Kelaidis, C. Petaroudis, A. A. Alivisatou, C. Drivas, S. Kennou, E. Agapaki, G. Charalampidis, A. B. Yusoff, N. N. Lathiotakis, A. G. Coutsolelos, D. Davazoglou, M. Vasilopoulou, A. Chroneos,
Sci. Rep. **2021**, *11*, 5700.
DOI:10.1038/s41598-021-81979-x

6. "Quadruple chemical bonding in the diatomic anions TcN^-, RuC^-, RhB^-, and $PdBe^-$",
D. Tzeli,
J. Comput. Chem. **2021**, *42*, 1126.
DOI: 10.1002/jcc.26527

7. "The impact of ionic liquid loading in three-dimensional carbon nanotube networks on the separation of CO_2/CH_4 fluid mixtures: Insights from molecular simulations",
I. Skarmoutsos, E. N. Koukaras, E. Klontzas,
J. Phys. Chem. C **2021**, *125*, 13508.
DOI: 10.1021/acs.jpcc.1c00346

8. "The polar cosolvent effect on caffeine solvation in supercritical CO_2-ethanol mixtures: A molecular modeling approach",
I. Skarmoutsos, I. D. Petsalakis, J. Samios,
Ind. Eng. Chem. Res. **2021**, *60*, 11834.
DOI: 10.1021/acs.iecr.1c00956

9. "The role of electric field, peripheral chains, and magnetic effects on significant H-1 upfield shifts of the encapsulated molecules in chalcogen-bonded capsules",
D. Tzeli, I. D. Petsalakis, G. Theodorakopoulos, F. U. Rahman, Y. Yu, J. Rebek,

Phys. Chem. Chem. Phys. **2021**, *23*, 19647.
DOI: 10.1039/d1cp02277f

10. "On the different faces of the supercritical phase of water at a near-critical temperature: pressure-induced structural transitions ranging from a gaslike fluid to a plastic crystal polymorph",
I. Skarmoutsos, A. Henao, E. Guardia, J. Samios,
J. Phys. Chem. B **2021**, *125*, 10260.
DOI: 10.1021/acs.jpcb.1c05053

11. "Width dependent elastic properties of graphene nanoribbons",
G. Kalosakas, N. N. Lathiotakis, K. Papagelis,
Materials **2021**, *14*, 5042.
DOI: 10.3390/ma14175042

12. "Quantitative account of the bonding properties of a rubredoxin model complex $[Fe(SCH_3)_4]^q$, q =-2,-1,+2,+3",
D. Tzeli, S. Raugei, S. S. Xantheas,
J. Chem. Theory Comput. **2021**, *17*, 6080.
DOI: 10.1021/acs.jctc.1c00485

13. "Generalized Kohn-Sham equations with accurate total energy and single-particle eigenvalue spectrum",
T. C. Pitts, N. N. Lathiotakis, N. Gidopoulos,
J. Chem. Phys. **2021**, *155*, 224105.
DOI: 10.1063/5.0071205

14. "Heterotrimetallic tetrathiomolybdate and tetrathiotungstate complexes of rhodium(I) and copper(I) with Rh-Mo(W)-Cu interactions",
E. Charalampous, N. Xamonaki, A. Asimakopoulos, A. Kritikou, K. Bethanis, A. Chrissanthopoulos, I. Choinopoulos, E. Simandiras, S. Koinis,
Polyhedron **2021**, *210*, 115536.
DOI: 10.1016/j.poly.2021.115536

15. "Biaxial strain engineering of CVD and exfoliated single- and bi-layer MoS2 crystals",
A. Michail, D. Anestopoulos, N. Delikoukos, J. Parthenios, S. Grammatikopoulos, S. A. Tsirkas, N. N. Lathiotakis, O. Frank, K. Filintoglou, K. Papagelis,
2D Mater. **2021**, *8*, 015023.
DOI: 10.1088/2053-1583/abc2de

16. "Unveiling the photoinduced electron-donating character of MoS_2 in covalently linked hybrids featuring perylenediimide",
I. K. Sideri, Y. Jang, J. Garcés-Garcés, A. Sastre-Santos, R. Canton-Vitoria, R. Kitaura, F. Fernández-Lazaro, F. D'Souza, N. Tagmatarchis,
Angew. Chem. Int. Ed. **2021**, *60*, 9120.
DOI: 10.1002/anie.202016249

17. "Enhancing efficiency and decreasing photocatalytic degradation of perovskite solar cells using a hydrophobic copper-modified titania electron transport layer",
A. A. Zaky, E. Christopoulos, K. Gkini, M. K. Arfanis, L. Sygellou, A. Kaltzoglou, A. Stergiou, N. Tagmatarchis, N. Balis, P. Falaras,
Appl. Catal. B **2021**, *284*, 119714.
DOI: 10.1016/j.apcatb.2020.119714

18. “An ion-selective crown ether covalently grafted onto chemically exfoliated MoS_2 as a biological fluid sensor”,
A. Stergiou, C. Stangel, R. Canton-Vitoria, R. Kitaura, N. Tagmatarchis,
Nanoscale **2021**, *13*, 8948.
DOI: 10.1039/D1NR00404B

19. “Controlled chemical functionalization toward 3D-2D carbon nanohorn-MoS_2 heterostructures with enhanced electrocatalytic activity for protons reduction”,
A. Kagkoura, R. Arenal, N. Tagmatarchis,
Adv. Funct. Mater. **2021**, *31*, 2105287.
DOI: 10.1002/adfm.202105287

20. “First synthesis of the inherently chiral trans-4’ bisadduct of $C_{59}N$ azafullerene using cyclo-[2]-dodecylmalonate as a tether”,
K. Asad, A. Stergiou, A. Kourtellaris, N. Tagmatarchis, N. Chronakis,
Chem. Eur. J. **2021**, *27*, 13879.
DOI: 10.1002/chem.202101776

21. “Chemically modified carbon nanostructures and 2D nanomaterials for fabrics performing under conditions of operational tension and extreme environmental conditions”,
I. K. Sideri, N. Tagmatarchis,
Mater. Horiz. **2021**, *8*, 3187.
DOI: 10.1039/d1mh01077h

22. “Interfacing carbon dots for charge transfer processes”,
A. Stergiou, N. Tagmatarchis,
Small **2021**, *17*, 2006005.
DOI: 10.1002/smll.202006005

23. “Robust coherent spin centers from stable azafullerene radicals entrapped in cycloparaphenylene rings”,
Y. Tanuma, A. Stergiou, A. Buzan Bobnar, M. Gaboardi, J. Rio, J. Volkmann, H. A. Wegner, N. Tagmatarchis, C. P. Ewels, D. Arcon,
Nanoscale **2021**, *13*, 19946.
DOI: 10.1039/d1nr06393f

24. “Optically formed rubbery waveguide interconnects”,
G. Violakis, A. Bogris, S. Pispas, G. Fytas, B. Loppinet, S. Pissadakis,
Opt. Lett. **2021**, *46*, 5437.
DOI: 10.1364/OL.435052

25. “Multi-responsive poly(oligo(ethylene glycol) methyl methacrylate)-co-poly(2-(diisopropylamino)ethyl methacrylate) hyperbranched copolymers via reversible addition fragmentation chain transfer polymerization”,
D. Selianitis, S. Pispas,
Polym. Chem. **2021**, *12*, 6582.
DOI: 10.1039/D1PY01320C

26. “Hybrid perovskite/polymer materials: preparation and physicochemical properties”,
M. Kafetzi, S. Pispas, G. Mousdis,
J. Composites Sci. **2021**, *5*, 304.
DOI: 10.3390/jcs5110304

27. “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. **2021**, *21*, 2100346.
DOI: 10.1002/mabi.202100346

28. “Reversible multilayered vesicle-like structures with fluid hydrophobic and interpolyelectrolyte layers”,
A. Murmiliuk, S. K. Filippov, O. Rud, P. Košovan, Z. Tošner, A. Radulescu, A. Skandalis, S. Pispas, M. Slouf, M. Stepanek,
J. Colloid Int. Sci. **2021**, *599*, 313.
DOI: 10.1016/j.jcis.2021.04.050

29. “Thermoresponsive chimeric nanocarriers as drug delivery systems”,
N. Naziris, N. Pippa, A. Skandalis, K. Milowska, L. Balcerzak, S. Pispas, M. Bryszewska, C. Demetzos,
Colloids Surf. B **2021**, *208*, 112141.
DOI: 10.1016/j.colsurfb.2021.112141

30. “P(MMA-co-HPMA)-b-POEGMA copolymers: synthesis, micelle formation in aqueous media and drug encapsulation”,
D. Selianitis, S. Pispas,
Polym. Int. **2021**, *70*, 1508.
DOI: 10.1002/pi.6229

31. “Block copolymer solution self-assembly: Recent advances, emerging trends, and applications”,
M. Karayianni, S. Pispas,
J. Polym. Sci. **2021**, *59*, 1874.
DOI: 10.1002/pol.20210430

32. “Effects of polymer block length asymmetry and temperature on the nanoscale morphology of thermoresponsive double hydrophilic block copolymers in aqueous solutions”,
A. Vagias, A. Papagiannopoulos, L. P. Kreuzer, D. Giaouzi, S. Busch, S. Pispas, P. Müller-Buschbaum,
Macromolecules **2021**, *54*, 7298.
DOI: 10.1021/acs.macromol.1c01005

33. “The influence of hydrophobic blocks of PEO-containing copolymers on glyceryl monooleate lyotropic liquid crystalline nanoparticles for drug delivery”,
A. Forys, M. Chountoulesi, B. Mendrek, T. Konieczny, T. Sentoukas, M. Godzierz, A. Kordyka, C. Demetzos, S. Pispas, B. Trzebicka,
Polymers **2021**, *13*, 2607.
DOI: 10.3390/polym13162607

34. “Complexation behavior of PNIPAM-b-QPDMAEA copolymer aggregates with linear DNAs of different lengths”,
D. Giaouzi, S. Pispas,
Eur. Polym. J. **2021**, *155*, 110575.
DOI: 10.1016/j.eurpolymj.2021.110575

35. “Influences of subphase pH and temperature on the interfacial aggregation behavior of poly(lauryl methacrylate)-block-poly(methacrylic acid)”,
K. Jiang, G. Wen, A. Skandalis, S. Pispas, Y. Ding, H. Chen,

Colloids Surf. A: Phys. Eng. Asp. **2021**, *620*, 126528.
DOI: 10.1016/j.colsurfa.2021.126528

36. "PnBA-b-PNIPAM-b-PDMAEA thermo-responsive triblock terpolymers and their quaternized analogs as gene and drug delivery vectors",
A. Skandalis, D. Selianitis, S. Pispas,
Polymers **2021**, *13*, 2361.
DOI: 10.3390/polym13142361

37. "Chimeric stimuli-responsive liposomes as nanocarriers for the delivery of the anti-glioma agent TRAM-34",
N. Naziris, N. Pippa, E. Sereti, V. Chrysostomou, M. Kędzierska, J. Kajdanek, M. Ionov, K. Milowska, L. Balcerzak, S. Garofalo, C. Limatola, S. Pispas, K. Dimas, M. Bryszewska, C. Demetzos,
Int. J. Mol. Sci. **2021**, *22*, 6271.
DOI: 10.3390/ijms22126271

38. "Recent advances and future perspectives in polymer- based nanovaccines",
N. Pippa, M. Gazouli, S. Pispas,
Vaccines **2021**, *9*, 558.
DOI: 10.3390/vaccines9060558

39. "Latest advances on the synthesis of linear ABC-type triblock terpolymers and star-shaped polymers by RAFT polymerization",
A. Skandalis, T. Sentoukas, D. Giaouzi, M. Kafetzi, S. Pispas,
Polymers **2021**, *13*, 1698.
DOI: 10.3390/polym13111698

40. "Amphiphilic A_xB_y mikto-arm star copolymers with PLMA and POEGMA arms: Self-assembly and drug encapsulation",
E. Vlassi, A. Papagiannopoulos, S. Pispas,
J. Polym. Sci. **2021**, *59*, 775.
DOI: 10.1002/pol.20210082

41. "Modification of the co-assembly behavior of double-hydrophilic block polyelectrolytes by hydrophobic terminal groups: ordered nanostructures with interpolyelectrolyte complex domains",
A. Fanova, I. Davidovich, Y. Talmon, A. Skandalis, S. Pispas, M. Stepanek,
ACS Appl. Polym. Mater. **2021**, *3*, 1956.
DOI: 10.1021/acsapm.1c00033

42. "Thermoresponsive PNIPAM-b-PAA block copolymers as "smart" adsorbents of Cu(II) for water restore treatments",
M. Kafetzi, K. B. L. Borchert, C. Steinbach, D. Schwarz, S. Pispas, S. Schwarz,
Colloids Surf. A: Phys. Eng. Asp. **2021**, *614*, 126049.
DOI: 10.1016/j.colsurfa.2020.126049

43. "Nano-assemblies from amphiphilic PnBA-b-POEGA copolymers as drug nanocarriers",
A. Chroni, T. Mavromoustakos, S. Pispas,
Polymers **2021**, *13*, 1164.
DOI: 10.3390/polym13071164

44. "The micellization of well-defined single graft copolymers in block copolymer/homopolymer blends",
E. Pavlopoulou, K. Chrissopoulou, S. Pispas, N. Hadjichristidis, S. H. Anastasiadis,

Polymers **2021**, *13*, 833.
DOI: 10.3390/polym13050833

45. "Multifaceted pH and temperature induced self-assembly of P(DMAEMA-co-LMA)-b-POEGMA terpolymers and their cationic analogues in aqueous media",
M. Kafetzi, S. Pispas,
Macromol. Chem. Phys. **2021**, *222*, 2000358.
DOI: 10.1002/macp.202000358

46. "Effects of ionic strength and ion specificity on the interface behavior of poly(dimethylaminoethyl methacrylate)-poly(lauryl methacrylate)",
H. Chen, G. Wen, V. Chrysostomou, S. Pispas, H. Li, Z. Sun,
Langmuir **2021**, *37*, 2419.
DOI: 10.1021/acs.langmuir.0c03424

47. "Molecular dynamics and crystallization in polymers based on ethylene glycol methacrylates (EGMAs) with melt memory characteristics: From linear oligomers to comb-like polymers",
O. Vassiliadou, V. Chrysostomou, S. Pispas, P. A. Klonos, A. Kyritsis,
Soft Matter **2021**, *17*, 1284.
DOI: 10.1039/D0SM01666G

48. "Effects of hydrophobic modifications on the solution self-assembly of P(DMAEMA-co-QDMAEMA)-b-POEGMA random diblock copolymers",
M. Kafetzi, S. Pispas,
Polymers **2021**, *13*, 1.
DOI: 10.3390/polym13030338

49. "Physicochemical properties and biological performance of polymethacrylate based gene delivery vector systems: influence of amino functionalities",
E. Haladjova, V. Chrysostomou, M. Petrova, I. Ugrinova, S. Pispas, S. Rangelov,
Macromol. Biosci. **2021**, *21*, 2000352.
DOI: 10.1002/mabi.202000352

50. "Chimeric liposomes incorporating functional copolymers: preparation and pH/thermo-responsive behaviour in aqueous solutions",
T. Sentoukas, C. Demetzos, S. Pispas,
J. Liposome Res. **2021**, *31*, 279.
DOI: 10.1080/08982104.2020.1806873

51. "Formation of uni-lamellar vesicles in mixtures of DPPC with PEO-b-PCL amphiphilic diblock copolymers",
A. Papagiannopoulos, N. Pippa, C. Demetzos, S. Pispas, A. Radulescu,
Polymers **2021**, *23*, 1.
DOI: 10.3390/polym13010004

52. "Lamellarity and size distributions in mixed DPPC/amphiphilic poly(2-oxazoline) gradient copolymer vesicles and their temperature response",
A. Papagiannopoulos, N. Pippa, C. Demetzos, S. Pispas, A. Radulescu,
Chem. Phys. Lipids **2021**, *234*, 105008.
DOI: 10.1016/j.chemphyslip.2020.105008

53. "Liquid crystalline nanoparticles for drug delivery: The role of gradient and block copolymers on the morphology, internal organisation and release profile",

M. Chountoulesi, D. R. Perinelli, A. Forys, G. Bonacucina, B. Trzebicka, S. Pispas, C. Demetzos,
Eur. J. Pharm. Biopharm. **2021**, *158*, 21.
DOI: 10.1016/j.ejpb.2020.08.008

54. "Poly(2-oxazoline)-based amphiphilic gradient copolymers as nanocarriers for losartan: insights into drug-polymer interactions",
A. Chroni, T. Mavromoustakos, S. Pispas,
Macromol **2021**, *1*, 177.
DOI: 10.3390/macromol1030014

55. "Polyethylene oxide hydrogels crosslinked by peroxide for the controlled release of proteins",
E. Vlassi, S. Pispas, C. Tsitsilianis, A. Radulescu, A. Papagiannopoulos,
Macromol **2021**, *1*, 37.
DOI: 10.3390/macromol1010004

56. "Effect of concentration on the physicochemical properties and drug release profile of cationic block copolymer aggregates",
E. Haladjova, R. Stancheva, S. Pispas, S. Rangelov,
Comptes rendus de l'Academie bulgare des Sciences **2021**, *74*, 1749.
DOI: 10.7546/CRABS.2021.12.04

57. "Current research on polyelectrolyte nanostructures: from molecular interactions to biomedical applications",
A. Papagiannopoulos,
Macromol **2021**, *1*, 155-172.
DOI: 10.3390/macromol1020012

58. "Xanthan-based polysaccharide/protein nanoparticles: preparation, characterization, encapsulation and stabilization of curcumin",
A. Papagiannopoulos, A. Sklapani,
Carbohydr. Polym. Technol. Appl. **2021**, *2*, 100075.
DOI: 10.1016/j.carpta.2021.100075

59. "Lithium ion sites and their contribution to the ionic conductivity of RLi_2O-B_2O_3 glasses with $R \leq 1.85$",
A. Ruckman, G. Beckler, W. Guthrie, M. Jesuit, M. Boyd, I. Slagle, R. Wilson, N. Barrow, N. S. Tagiara, E. I. Kamitsos, S. Feller, C. B. Bragatto,
Solid State Ionics **2021**, *359*, 115530.
DOI: 10.1016/j.ssi.2020.115530

60. "Anomalous deformation behavior in ULE glass upon micro-indentation: A vibrational spectroscopic investigation of the induced structural changes in a Ti-silicate glass",
D. Möncke, F. Lind, B. Topper, E. I. Kamitsos,
J. Phys. Chem. C **2021**, *125*, 4183.
DOI: 10.1021/acs.jpcc.0c09865

61. "Short-range structure, the role of bismuth and property-structure correlations in bismuth borate glasses",
C. P. E. Varsamis, N. Makris, C. Valvi, E. I. Kamitsos,
Phys. Chem. Chem. Phys. **2021**, *23*, 10006.
DOI: 10.1039/D1CP00301A

62. "Structure and magnetic properties of BeO-Fe_2O_3-Al_2O_3-TeO_2 glass-ceramic composites",
N. A. Wójcik, N.S. Tagiara, S. Ali, K. Górnicka, H. Segawa, B. Jonson, T. Klimczuk, D. Möncke, E. I. Kamitsos,
J. Eur. Ceram. Soc. **2021**, *41*, 5214.
DOI: 10.1016/j.jeurceramsoc.2021.04.005

63. "Network former mixing effects in alkali germanotellurite glasses: A vibrational spectroscopic study",
N. S. Tagiara, K. I. Chatzipanagis, H. Bradtmüller, A. C. M. Rodrigues, D. Möncke, E. I. Kamitsos,
J. Alloys Compd. **2021**, *882*, 160782.
DOI: 10.1016/j.jallcom.2021.160782

64. "Structure and fluorescence properties of Dy doped alkaline earth borophosphate glasses",
K. Griebenow, F. Munoz, N. S. Tagiara, R. Klement, A. Prnova, B. Wolfrum, E. I. Kamitsos, A. Duran, D. Galusek,
Int. J. Appl. Glass Sci. **2021**, *12*, 472.
DOI: 10.1111/ijag.16105

65. "Intercalation of N-methylformamide in kaolinite: In situ monitoring by near-infrared spectroscopy and X-ray diffraction",
F. Andreou, B. Barylska, Z. Ciesielsca, M. Szczerba, A. Derkowski, V. Gionis, E. Siranidi, G. D. Chryssikos,
Appl. Clay Sci. **2021**, *212*, 106209.
DOI: 10.1016/j.clay.2021.106209

66. "Efficient CO sensing by a CuO:Au nanocomposite thin film deposited by PLD on a Pyrex tube",
P. Koralli, G. Petropoulou, D.E. Mouzakis, G. Mousdis, M. Kompitsas,
Sens. Actuators, A. **2021**, *332*, 113120.
DOI: 10.1016/j.sna.2021.113120

67. "Photophysical properties of composites based on poly-n-epoxypropylcarbazole and molecules of organic conductors",
A. V. Kukhta, N. A. Davidenko I. I. Davidenko, I. N. Kukhta, E. V. Mokrinskaya, N. G. Vishnevskii D. G. Chuprina, G. A. Mousdis,
J. Appl. Spectrosc. **2021**, *88*, 70.
DOI: 10.1007/s10812-021-01142-2

68. "Temperature effects on the vibrational properties of the Cs_2SnX_6 'defect' perovskites (X = I, Br, Cl)",
G. V. Belessiotis, M. Arfanis, A. Kaltzoglou, V. Likodimos, Y. S. Raptis, P. Falaras, A. G. Kontos,
Mater. Chem. Phys. **2021**, *267*, 124679.
DOI: 10.1016/j.matchemphys.2021.124679

69. "Recent developments on hybrid perovskite materials for solar energy conversion and environmental protection",
A. Kaltzoglou, P. Falaras,
Curr. Opin. Chem. Eng. **2021**, *33*, 100708.
DOI: 10.1016/j.coche.2021.100708

70. "Synthesis, characterization and optoelectronic properties of 2D hybrid $RPbX_4$ semiconductors based on an isomer mixture of hexanediamine-based dications",
A. Ioannou, I. Vareli, A. Kaltzoglou, I. Koutselas,
Z. Naturforschung B. **2021**, *76*, 517.
DOI: 10.1515/znb-2021-0090

71. "Viscoelasticity and noise properties reveal the formation of biomemory in cells",
E. Bakalis, V. Gavriil, A. C. Cefalas, Z. Kollia, F. Zerbetto, E. Sarantopoulou,
J. Phys. Chem. B **2021**, *125*, 10883.
DOI: 10.1021/acs.jpcbb.1c01752

2. Publications in Conference Proceedings

1. "Molecularly pillared graphene with dithiolene and diamine linking groups",
E. Papasouli, R. Lingas, I. Skarmoutsos, E. Klontzas, E. N. Koukaras,
4th Chemistry Conference of Graduate, Postgraduate students and PhD candidates of the Aristotle University of Thessaloniki, Thessaloniki, Greece, March 20-21, 2021,
Proceedings International 2021, 3, 27-28.

2. "Lykion: A case study for medicine in Antiquity",
M. Papageorgiou, V. Boura, H. Brecoulaki, D. Palles, K. Kallintzi, E. I. Kamitsos,
2nd International Conference on Global Issues on Environment and Culture, Delphi, Greece, September 17-19, 2021, pp. 1-2.

3. "Network former mixing effects in alkali germanotellurite glasses by vibrational spectroscopy",
N. S. Tagiara, K. I. Chatzipanagis, H. Bradtmüller, A. C. M. Rodrigues, D. Möncke, E. I. Kamitsos,
XXXV Panhellenic Conference on Solid State Physics and Materials Science, Congress Center - NCSR "Demokritos", Athens, Greece, September 26-29, 2021, pp. 1-2.

4. "Sorption mechanisms of phosphorus and ammonium nitrogen from anaerobically digested wastewater on modified zeolite and fly ash",
D. Mitrogiannis, M. Psychogiou, D. Palles, E. I. Kamitsos, N. Koukouzas, C. Mavrogonatos, I. Baziotis,
Proceedings of the 12th Panhellenic Conference of EGME-2021, October 21-22, 2021.

5. Near-infrared and XRD investigation of N-methylformamide intercalation in kaolinite",
F. Andreou, E. Siranidi, G. D. Chryssikos, Z. Ciesielska, M. Szczerba, A. Derkowski,
XXXV Panhellenic Conference on Solid State Physics and Materials Science, Athens, Greece, September 26-29, 2021. Proceedings, pp. 1-2.

6. "Laser-structured ZnO/p-Si photodetector with enhanced and broadband responsivity",
G. Chatzigiannakis, A. Jaros, R. Leturcq, J. Jungclaus, T. Voss, S. Gardelis, M. Kandyla,
Conference on Lasers and Electro-Optics (CLEO), San Jose, CA USA, May 9-14, 2021,
OSA Technical Digest, 2021, SM3B.2

3. Book Chapters

1. "Functionalized carbon nanohorns as drug delivery platforms",
A. Stergiou, N. Tagmatarchis,
Supramolecules in Drug Discovery and Drug Delivery: Methods and Protocols, Methods in Molecular Biology, Eds.: T. Mavromoustakos, A. G. Tzakos, S. Durdagi, Springer Nature B.V., The Netherlands, 2021, Vol. 2207, Chapter 2, p. 13.

ISBN: 978-1-0716-0919-4.
DOI: 10.1007/978-1-0716-0920-0

2. "Drug delivery: hydrophobic drug encapsulation into amphiphilic block copolymer micelles",
A. Chroni, V. Chrysostomou, A. Skandalis, S. Pispas,
Supramolecules in Drug Discovery and Drug Delivery: Methods and Protocols, Methods in Molecular Biology, Eds.: T. Mavromoustakos, A. G. Tzakos, S. Durdagi, Springer Nature B.V., The Netherlands, 2021, Vol. 2207, Chapter 6, pp. 71.
ISBN: 978-1-0716-0920-0
DOI: 10.1007/978-1-0716-0920-0_6

3. "Association of the thermodynamics with the functionality of thermoresponsive chimeric nanosystems",
N. Naziris, A. Skandalis, T. Mavromoustakos, S. Pispas, C. Demetzos,
Supramolecules in Drug Discovery and Drug Delivery: Methods and Protocols, Methods in Molecular Biology, Eds.: T. Mavromoustakos, A. G. Tzakos, S. Durdagi, Springer Nature B.V., The Netherlands, 2021, Vol. 2207, Chapter 17, pp. 221.
ISBN: 978-1-0716-0920-0
DOI: 10.1007/978-1-0716-0920-0_17

4. "Dynamics and physics of integrin activation in tumor cells by nano-sized extracellular ligands and electromagnetic fields",
A. C. Cefalas, V. Gavriil, A. Ferraro, Z. Kollia, E. Sarantopoulou,
The Integrin Interactome: Methods and Protocols, Methods in Molecular Biology, Eds.: M. Vicente-Manzanares, Springer Nature, Humana, New York NY, 2021, Vol. 2217, Chapter 4, p. 197.
ISBN: 978-1-0716-0962-0
DOI: 10.1007/978-1-0716-0962-0_12

4. Books

5. Dissertations

a. PhD theses

1. "Synthesis, structure and properties of pure TeO_2 glass, binary and ternary tellurite glasses",
N. Tagiara,
Supervisor: Dr E. Kamitsos
School of Applied Mathematics and Physical Sciences, National Technical University of Athens (11.2021).

2. "Optical and electric properties of functional materials at the nanoscale",
V. Gavriil,
Supervisor: Dr E. Sarantopoulou,
Department of Chemical Engineering, Aristotle University of Thessaloniki (10.2021).

b. MSc theses

1. "Synthesis, characterization and assessment of hybrid materials based on two-dimensional nanostructured materials and polymers",
A. Plantzopoulou,
Supervisor: Dr N. Tagmatarchis
Department of Chemistry, National and Kapodistrian University of Athens (10.2021).

2. "Covalent chemical functionalization of two-dimensional nanomaterials, graphene and molybdenum disulfide, with imidazolium cations and poly(acrylate) counter anions",
   M. L. Vorvila,
   Supervisor: Dr N. Tagmatarchis
   Department of Chemistry, National and Kapodistrian University of Athens (10.2021).
3. "Hyperbranched random amphiphilic H-[P(OEGMA-co-LMA)] copolymers: Synthesis, characterization, solution properties and encapsulation of hydrophobic compounds",
   A. Balafouti,
   Supervisor: Dr S. Pispas
   Department of Chemistry, National and Kapodistrian University of Athens (02.2021).
4. "Studies on the interactions of glycogen phosphorylase enzyme with polyelectrolytes",
   D. Neofytos,
   Supervisor: Dr S. Pispas
   Department of Chemistry, National and Kapodistrian University of Athens (02.2021).
5. "Double hydrophilic POEGMA-b-PMETAC and P(OEGMA-co-METAC) copolymers: Synthesis, characterization, self-assembly in aqueous solutions and complexation with DNA",
   D. Zoga,
   Supervisor: Dr S. Pispas
   Department of Chemistry, National and Kapodistrian University of Athens (05.2021).

c. <u>Diploma theses</u>

1. "Physicochemical characterization of biomaterials prepared from polysaccharides and proteins by biocompatible methods",
   A. Sklapani,
   Supervisor: Dr A. Papagiannopoulos
   School of Applied Mathematical and Physical Sciences, National Technical University of Athens (2021).
2. "Study of albumin / chondroitin sulfate biopolymer systems with surface plasmon resonance, adsorption under flow and contact angle techniques",
   A. Syrrakou,
   Supervisor: Dr. A. Papagiannopoulos
   Department of Physics, University of Patras (2021).
3. "Characterization and classification of halloysite",
   L. Renaudat,
   Supervisor: Dr G. D. Chryssikos
   AgroSup, Dijon, France (08.2021).
4. "Fine, reversible and broadband tuning of the group velocity dispersion of tapered silica fibers in a thermo-optic polymer matrix",
   E. Bakoglou,
   Supervisor: Dr G. Kakarantzas
   Department of Materials Science and Technology, University of Crete (09.2021).

d. <u>Internships</u>

1. "Development of software for analysis of data from biomaterial thin film characterization techniques based on reflection of light and neutrons",
   A. Syrrakou,
   Supervisor: Dr. A. Papagiannopoulos

Department of Physics, University of Patras (05-07.2021).

2. "Advanced applications of vibrational spectroscopy",
   K. Kalahurska,
   Supervisor: Dr G. D. Chryssikos
   Department of Chemistry, Jagiellonian University, Cracow, Poland (09-10.2021)

6. Conference Presentations

1. "Insight into the structural, optical and electronic properties of fluorine doped SnO_2: From theory to applications"
   N. Kelaidis, P. P. Filippatos, N. N. Lathiotakis, M. Vasilopoulou, D. Davatzoglou, A. Chroneos,
   EUROMAT 2021, Virtual Conference, September 13-17, 2021 (oral).
2. "Layer dependent electronic properties of SnO and PbO for energy storage and conversion applications"
   N. Kelaidis, P. P. Filippatos, A. Kordatos, M. Zervos, A. Chroneos, N. Lathiotakis,
   EUROMAT 2021, Virtual Conference, September 13-17, 2021 (poster).
3. "A theoretical DFT study of membranes for gas separation based on one and two layers of nano-porous graphene"
   N. N. Lathiotakis, Z. G. Fthenakis, N. Kelaidis, I. D. Petsalakis,
   EUROMAT 2021, Virtual Conference, September 13-17, 2021 (oral).
4. "Electronic density inversion method to obtain the corresponding Kohn Sham potential"
   S. Bousiadi, N. N. Lathiotakis, N. Gidopoulos,
   XXXV Panhellenic Conference on Solid State Physics & Materials Science, Virtual Meeting, Athens, Grecce, September 26-29, 2021 (oral).
5. "Temperature dependent resonant Raman scattering in 2D – TMDCs"
   A. Michail, E. Katsarou, D. Sitaridis, L. Seremetis, N. N. Lathiotakis, J. Parthenios and K. Papagelis,
   XXXV Panhellenic Conference on Solid State Physics & Materials Science, Virtual Meeting, Athens, Grecce, September 26-29, 2021 (oral).
6. "Study of high order Raman spectrum of two dimensional WS_2 under mechanical strain"
   K. Filintoglou, A. Michail, N. N. Lathiotakis, J. Parthenios, and K. Papagelis,
   XXXV Panhellenic Conference on Solid State Physics & Materials Science, Virtual Meeting, Athens, Grecce, September 26-29, 2021 (poster).
7. "Electronic density inversion method to obtain the corresponding Kohn Sham potential"
   S. Bousiadi, N. N. Lathiotakis, N. Gidopoulos,
   Phd-candidate virtual seminars, Section of Condensed Matter Physics, Department of Physics, NKUA, June 15, 2021 (oral).
8. "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 8-9, 2021 (oral).
9. "Encapsulation in chalcogen-bonded vs hydrogen-bonded cages"
   D. Tzeli,

Athens Conference on Advances in Chemistry (acac2020), Department of Chemistry, National and Kapodistrian University of Athens, Athens, Greece, March 10-14, 2021 (oral).

10. "Analysis of the double, quadruple and sextuple chemical bonding of diatomic molecules of 2nd row transition metals"
    A. Androutsopoulos, T. Depastas, I. Karapetsas, D. Tzeli,
    Athens Conference on Advances in Chemistry (acac2020), Department of Chemistry, National and Kapodistrian University of Athens, Athens, Greece, March 10-14, 2021 (flash oral presentation).
11. "Tuning the absorption spectra of nickel and zinc complexes of N-confused tetraphenylporphyrin"
    E. Papamichalis, I. D. Petsalakis, D. Tzeli,
    Athens Conference on Advances in Chemistry (acac2020), Department of Chemistry, National and Kapodistrian University of Athens, Athens, Greece, March 10-14, 2021 (flash oral presentation).
12. "Theoretical study of the photophysical processes of a three-input AND molecular logic gate with an enhanced fluorescent output"
    C. Tzeliou, D. Tzeli,
    Athens Conference on Advances in Chemistry (acac2020), Department of Chemistry, National and Kapodistrian University of Athens, Athens, Greece, March 10-14, 2021 (flash oral presentation).
13. "Electronic structure and Bonding properties of iron–sulfur clusters"
    M. A. Mermigki, D. Tzeli,
    Athens Conference on Advances in Chemistry (acac2020), Department of Chemistry, National and Kapodistrian University of Athens, Athens, Greece, March 10-14, 2021 (flash oral presentation).
14. "Unreveling the catalytic mechanism of proton reduction by a copper(I) diamine catalyst"
    M. Drosou, F. Kamatsos, G. Ioannidis, A. Zarkadoulas, C. A. Mitsopoulou, C. Papatriantafyllopoulou, D. Tzeli,
    Athens Conference on Advances in Chemistry (acac2020), Department of Chemistry, National and Kapodistrian University of Athens, Athens, Greece, March 10-14, 2021 (oral).
15. "Time-evolution study of photoinduced charge-transfer in fluorophore systems"
    D. Tzeli, Th. Mercouris, G. Theodorakopoulos, I. D. Petsalakis,
    MD-GAS WG1 & WG2 Meeting, COST Action: CA18212 - Molecular Dynamics in the GAS phase. Virtual Conference, March 15-19, 2021 (poster).
16. "Theoretical study of the photophysical processes of three-input AND molecular logic gates"
    C. Tzeliou, D. Tzeli, G. Theodorakopoulos, I. D. Petsalakis,
    eSSENCE-EMMC e-Meeting June 7-8, 2021 (poster).
17. "Electronic structure and Bonding Properties of Diatomic Molecule FeS"
    M. A. Mermigki, D. Tzeli,
    VI-EGAS52, 52nd Conference of the European Group of Atomic Systems, Virtual Conference, Zagreb, Croatia, July 6-8, 2021 (poster).
18. "Accurate theoretical study of the spectroscopic properties of diatomic molecules including 2nd row transition metals"

A. Androutsopoulos, T. Depastas, I. Karapetsas, D. Tzeli,
VI-EGAS52, 52nd Conference of the European Group of Atomic Systems, Virtual Conference, Zagreb, Croatia, July 6-8, 2021 (poster).

19. "The effect of acidity, oxidisability, metal coordination, light, and solvent polarity" C. Tzeliou, D. Tzeli
MD-GAS Cost Action 2nd General Meeting COST Action: CA18212 - Molecular Dynamics in the GAS phase, Virtual Conference, October 4-8, 2021 (poster).
20. "Modulation of the absorption spectra of metal complexes of N-confused tetraphenylporphyrin"
E. Papamichalis, I. D. Petsalakis, D. Tzeli
MD-GAS Cost Action 2nd General Meeting COST Action: CA18212 - Molecular Dynamics in the GAS phase, Virtual Conference, October 4-8, 2021 (poster).
21. "Gas storage and separation using three-dimensional pillared graphene oxide frameworks with phenyldiboronic acid linkers: A computational approach."
I. Skarmoutsos, E. N. Koukaras, E. Klontzas,
Graphene 2021, Grenoble, France, October 26-29, 2021 (oral).
22. "F-gas adsorption in pillared graphene materials. Insights from molecular simulations."
E. Klontzas, I. Skarmoutsos, E. N. Koukaras,
Graphene 2021, Grenoble, France, October 26-29, 2021 (poster).
23. "Confined ionic liquids (IL) in carbon-based materials for CO_2/CH_4 separation: insights from computer simulations."
E. N. Koukaras, I. Skarmoutsos, E. Klontzas,
Graphene 2021, Grenoble, France, October 26-29, 2021 (poster).
24. "Computational study of 3D structures of pillared graphene"
E. Papasouli, R. Lingas, I. Skarmoutsos, E. Klontzas, E. N. Koukaras,
Graphene 2021, Grenoble, France, October 26-29, 2021 (poster).
25. "Molecularly pillared graphene-based materials with diamine crosslinking: Synthesis and characterization"
M. Douka, D. Andreou, I. N. Lykakis, E. Klontzas, E. N. Koukaras,
Graphene 2021, Grenoble, France, October 26-29, 2021 (poster).
26. "Molecularly pillared graphene with dithiolene and diamine linking groups"
E. Papasouli, R. Lingas, I. Skarmoutsos, E. Klontzas, E. N. Koukaras,
XXXV Panhellenic Conference on Solid State Physics & Materials Science, Virtual Meeting, Athens, Grecce, September 26-29, 2021 (oral).
27. "SF_6 Capture and separation of SF_6-N_2 fluid mixtures using porous carbon nanotube networks and pillared graphene materials"
I. Skarmoutsos, E. N. Koukaras, C. Galiotis, G. E. Froudakis, E. Klontzas,
XXXV Panhellenic Conference on Solid State Physics & Materials Science, Virtual Meeting, Athens, Grecce, September 26-29, 2021 (oral).
28. "Role of the loading of ionic liquid $[EMIM]^+$ $[BF_4]^-$ in the separation of CO_2/CH_4 in 3D carbon nanotube networks."
I. Skarmoutsos, R. Lingas, E. N. Koukaras, E. Klontzas,
XXXV Panhellenic Conference on Solid State Physics & Materials Science, Virtual Meeting, Athens, Grecce, September 26-29, 2021 (poster).
29. "Multiscale modeling of hydrogen sulfide capture using functionalized metal-organic

frameworks"
M. Tsanai, E. Klontzas, E Tylianakis, G. E. Froudakis,
XXXV Panhellenic Conference on Solid State Physics & Materials Science, Virtual Meeting, Athens, Grecce, September 26-29, 2021 (poster).

30. "Computational study of 5-fluorouacil interaction with zeolite imidazolate frameworks (ZIFs)"
M. Vlachos, G. Froudakis, M. Tylianakis, M. Klontzas,
XXXV Panhellenic Conference on Solid State Physics & Materials Science, Virtual Meeting, Athens, Grecce, September 26-29, 2021 (poster).

31. "Synthesis and characterization of 3D graphene-based materials with diamine crosslinking"
M. Douka, D. Andreou, I. N. Lykakis, E. Klontzas, E. N. Koukaras,
XXXV Panhellenic Conference on Solid State Physics & Materials Science, Virtual Meeting, Athens, Grecce, September 26-29, 2021 (poster).

32. "Role of the loading of ionic liquid $[EMIM]^+$ $[BF_4]^-$ in the Separation of CO_2/CH_4 in 3D carbon nanotube networks."
I. Skarmoutsos, R. Lingas, E. N. Koukaras, E. Klontzas,
XXXV Panhellenic Conference on Solid State Physics & Materials Science, Virtual Meeting, Athens, Grecce, September 26-29, 2021 (poster).

33. "Adsorption of phenol in linker deficient Zr/Ti metal-organic frameworks (MOFs)"
A. G. Papadopoulos, E. Klontzas,
eSSENCE-EMMC2021, Virtual Meeting, June 7-8, 2021 (poster).

34. "Adsorption of phenol in Zr-based metal-organic frameworks (MOFs). A DFT study."
A. G. Papadopoulos, E. Klontzas,
A Virtual Winter School on Computational Chemistry, February 15-19, 2021 (flash oral presentation).

35. "Design and development of carbon nanohorn/liposome delivery platforms"
N. Pippa, C. Stangel, I. Kastanas, E. Triantafyllopoulou, N. Naziris, D. Stellas, M. Zhang, M. Yudasaka, C. Demetzos, N. Tagmatarchis,
18th Hellenic Symposium on Medicinal Chemistry, Virtual Meeting, Athens, Greece, February 25-27, 2021 (oral).

36. "Visualizing outer surface functionalization of carbon nanohorn spherical aggregates by highly spatially resolved SEM-EDS"
H. Nakajima, T. Marimoto, K. Kobashi, M. Zhang, I. K. Sideri, N. Tagmatarchis, T. Okazaki,
The 60th Fullerenes-Nanotubes-Graphene General Symposium, Nagoya, Japan, March 1-3, 2021 (oral).

37. "Innovative industrial materials with advanced multifunctionality, prolonged lifetime and improved performance against environmental conditions for versatile protective equipment",
I. K. Sideri, N. S. Heliopoulos, T. Zikos, D. Siamidis, G. C. Vougioukalakis, N. Tagmatarchis,
Athens Conference on Advances in Chemistry, Virtual Meeting, National and Kapodistrian University of Athens, Athens, Greece, March 10-14, 2021 (oral).

38. "Excited state charge transfer in BODIPY linked 2D transition metal dichalcogenide hybrids"

F. D'Souza, S. Shao, R. Canton-Vitoria, Y. Jang, H. B. Gobeze, N. Tagmatarchis,
11th International Conference on Porphyrins and Phthalocyanines (ICPP), Buffalo, USA, June 28 – July 3, 2021 (oral).

39. "Excited state charge transfer in covalently decorated photosensitizer – 2D transition metal dichalcogenides"
F. D'Souza, Y. Jang, H. Gobeze, R. Canton-Vitoria, I. K. Sideri, J. Garces-Garces, J. Ortiz, A. Sastre-Santos, F. Fernadez-Lazaro, N. Tagmatarchis,
XXIX International Materials Research Congress (iMRC), A7 Symposium: Advanced Structural Materials: Mechanics, properties and applications of emerging materials, Cancun, Mexico, August 15-20, 2021 (oral).

40. "Chemical functionalization of two-dimensional transition metal disulfides"
N. Tagmatarchis,
XXXV Panhellenic Conference on Solid State Physics & Materials Science, Athens, Greece, September 26-29, 2021 (invited talk).

41. "Covalently functionalized MoS_2 with dithiolenes"
I. K. Sideri, N. Tagmatarchis,
Graphene 2021, Grenoble, France, October 26-29, 2021 (oral).

42. "Nanostructures from cationic block copolymers and DNA by electrostatic co-assembly"
S. Pispas,
International Online Conference on Nano Materials-ICN 2021, Mahatma Gandhi University, Kottayam, Kerala, India, April 9-11, 2021 (plenary lecture).

43. "Thermoresponsive copolymers of different macromolecular architectures by RAFT polymerization"
S. Pispas,
International Online Conference on Macromolecules: Synthesis, Morphology, Processing, Structure, Properties and Applications-ICM 2021, Mahatma Gandhi University, Kottayam, Kerala, India, September 10-12, 2021 (invited lecture).

44. "Responsive copolymers by RAFT polymerization as building blocks for constructing self-assembled bio-hybrid nanostructures"
S. Pispas,
International Conference Progress in Organic and Macromolecular Compounds, 28th Edition, Petru Poni Institute of Macromolecular Chemistry, Iasi, Romania, October 7 - 9, 2021 (invited lecture).

45. "Chitosan nanoparticles by electrostatic crosslinking: Effects of cross-linker nature and concentration"
D. Selianitis, A. Chroni, M. D. Charavgi, M. Karayianni, A. Papagiannopoulos, S. Pispas, D. Tsiriva, L. Laskaridis,
35th Conference of the European Colloid & Interface Society-ECIS2021, Athens, Greece, September 5-10, 2021 (poster).

46. "Development of stimuli-responsive lyotropic liquid crystalline nanosystems with incorporated PDMAEMA-b-PLMA block copolymer for drug delivery"
M. Chountoulesi, A. Forys, V. Chrysostomou, B. Trzebicka, S. Pispas, C. Demetzos,
35th Conference of the European Colloid & Interface Society-ECIS2021, Athens, Greece, September 5-10, 2021 (poster).

47. "Partially hydrophobically-modified random diblock copolymer colloids for insulin delivery"

M. Kafetzi, S. Pispas,
35th Conference of the European Colloid & Interface Society-ECIS2021, Athens, Greece, September 5-10, 2021 (poster).

48. "Electrostatic colloidal complexes between amphiphilic cationic block copolymer micelles and DNA"
V. Chrysostomou, A. Forys, B. Trzebicka, C. Demetzos, S. Pispas,
35th Conference of the European Colloid & Interface Society-ECIS2021, Athens, Greece, September 5-10, 2021 (poster).

49. "Poly[(vinyl benzyl trimethylammonium chloride)]-based hybrid colloids encapsulating insulin"
A. Chroni, S. Pispas,
35th Conference of the European Colloid & Interface Society-ECIS2021, Athens, Greece, September 5-10, 2021 (poster).

50. "Liquid crystalline nanoparticles: the effect of polymeric stabilizer on internal organization and drug release profile"
M. Chountoulesi, D. R. Perinelli, A. Forys, G. Bonacucina, B. Trzebicka, S. Pispas, C. Demetzos,
35th Conference of the European Colloid & Interface Society-ECIS2021, Athens, Greece, September 5-10, 2021 (poster).

51. "Biophysical studies of Glycogen Phosphorylase in complex with the cationic polyelectrolyte QPDMAEMA"
D. Neofytos, A. Papagiannopoulos, E. D. Chrysina, S. Pispas,
35th Conference of the European Colloid & Interface Society-ECIS2021, Athens, Greece, September 5-10, 2021 (poster).

52. "Hyperbranched H-[P(OEGMA-co-LMA)] random amphiphilic copolymers as self-assembled nanocarriers for curcumin"
A. Balafouti, S. Pispas,
35th Conference of the European Colloid & Interface Society-ECIS2021, Athens, Greece, September 5-10, 2021 (poster).

53. "pH and thermo responsive schizophrenic self-assembly of PDEGMA-b-PDIPAEMA copolymers in aqueous media"
D. Selianitis, S. Pispas,
35th Conference of the European Colloid & Interface Society-ECIS2021, Athens, Greece, September 5-10, 2021 (poster).

54. "Mikto-arm star cationic polyelectrolytes as insulin nanocarriers"
E. Vlassi, S. Pispas,
35th Conference of the European Colloid & Interface Society-ECIS2021, Athens, Greece, September 5-10, 2021 (poster).

55. "Biopolymer based organic/inorganic hybrid nanoparticles relevant to bioimaging applications"
M. Karayianni, S. Pispas,
13th Hellenic Polymer Society International Conference, Virtual Event, Athens, Greece, December 12-16, 2021 (oral).

56. "$(PDMAEMA)_x(POEGMA)_y$ mikto-arm star-shaped copolymers via RAFT polymerization and their hydrophobic modifications towards amphiphilic star copolymers"

M. Kafetzi, S. Pispas,
13th Hellenic Polymer Society International Conference, Virtual Event, Athens, Greece, December 12-16, 2021 (poster).

57. "Synthesis and characterization of poly(DMAEMA-co-LMA-co-OEGMA) terpolymers"
M. Tomara, D. Selianitis, S. Pispas,
13th Hellenic Polymer Society International Conference, Virtual Event, Athens, Greece, December 12-16, 2021 (poster).

58. "Calorimetric and dielectric studies on poly(lauryl methacrylate)-co-poly(oligo ethylene glycol methacrylate) (PLMA-co-POEGMA) random copolymers"
O. Vassiliadou, A. Balafouti, S. Pispas, A. Kyritsis,
13th Hellenic Polymer Society International Conference, Virtual Event, Athens, Greece, December 12-16, 2021 (poster).

59. "Chitosan nanoparticles by electrostatic interactions with multifunctional acids"
A. Chroni, D. Selianitis, M. D. Charavgi, M. Karayianni, A. Papagiannopoulos, S. Pispas, D. Tsiriva, L. Laskaridis,
13th Hellenic Polymer Society International Conference, Virtual Event, Athens, Greece, December 12-16, 2021 (poster).

60. "Nano-assemblies from amphiphilic PnBA-b-POEGA copolymers as drug nanocarriers: structure and drug–polymer interactions"
A. Chroni, T. Mavromoustakos, S. Pispas,
13th Hellenic Polymer Society International Conference, Virtual Event, Athens, Greece, December 12-16, 2021 (poster).

61. "H-[P(OEGMA-co-LMA)]: novel hyperbranched random amphiphilic copolymers as self-assembled nanocarriers for drug delivery and bio-imaging applications"
A. Balafouti, S. Pispas,
13th Hellenic Polymer Society International Conference, Virtual Event, Athens, Greece, December 12-16, 2021 (poster).

62. "Formation of micelleplexes between cationic block copolymer micelles and DNA"
V. Chrysostomou, A. Forys, B. Trzebicka, C. Demetzos, S. Pispas,
13th Hellenic Polymer Society International Conference, Virtual Event, Athens, Greece, December 12-16, 2021 (poster).

63. "Multi-responsive P(OEGMA-co-DIPAEMA) hyperbranched copolymers via RAFT polymerization",
D. Selianitis, S. Pispas,
13th Hellenic Polymer Society International Conference, Virtual Event, Athens, Greece, December 12-16, 2021 (poster).

64. "Design and development of DSPC:DAP:PDMAEMA-b-PLMA nanostructures: from the adumbration of their morphological characteristics to in vitro evaluation"
N. Pippa, V. Chrysostomou, A. Forys, H. Katifelis, B. Trzebicka, M. Gazouli, C. Demetzos, S. Pispas,
Annual Meeting of the European Federation for Pharmaceutical Sciences – EUFEPS, Virtual Meeting, Chalmers University of Technology, Sweden, June 07-09, 2021 (oral).

65. "Biodegradable edible films in food packaging using sunflower protein isolates and bacterial nanocellulose"
M. N. Efthymiou, E. Tsouko, A. Papagiannopoulos, D. Selianitis, I. G. Athanasoulia, M. Georgiadou, S. Pispas, D. Briassoulis, T. Tsironi, A. Koutinas,

5th European Conference on Green and Sustainable Chemistry, Virtual Conference, Thessaloniki, Greece, September 26-29, 2021 (oral).

66. "Sustainable production of novel oleogels employing rich in carotenoids microbial oil derived from spent coffee grounds"
A. Mavria, E. Tsouko, A. Papagiannopoulos, S. Protonotariou, M. Georgiadou, S. Pispas, I. Mandala, A. Koutinas,
5th European Conference on Green and Sustainable Chemistry, Virtual Conference, Thessaloniki, Greece, September 26-29, 2021 (oral).

67. "Amphiphilic block copolymer micelles with a random hydrophobic core forming block for curcumin and indomethacin encapsulation"
D. Selianitis, S. Pispas,
18th Hellenic Symposium on Medicinal Chemistry, Virtual Meeting, Athens, Greece, February 25-27, 2021 (poster).

68. "Self-assembly of cationic mikto-arm star polyelectrolytes and their interactions with insulin"
E. Vlassi, S. Pispas,
International Online Conference on Macromolecules: Synthesis, Morphology, Processing, Structure, Properties and Applications-ICM-2021, Kottayam, Kerala, India, September 10-12, 2021 (poster).

69. "Micellization of a multi-responsive block copolymers"
Y. Li, C-H. Ko, A. Skandalis, D. Molodenskiy, X. Jiang, S. Pispas, C. M. Papadakis,
Annual Meeting of DPG and DPG Meeting of the Condensed Matter Section (SKM, virtual event), September 27-October 1, 2021 (poster).

70. "Effect of concentration on the physico-chemical properties and drug release profile of cationic polymer micelles"
M. Sabeva, R. Stancheva, E. Haladjova, S. Pispas, S. Rangelov,
12th Scientific Session "Young researchers in the World of Polymers", Sofia, Bulgaria, June 6, 2021 (poster).

71. "Development of spherical nucleic acids from novel polystyrene/poly(chloromethylstyrene)/oligonucleotide conjugates via initiator-free click chemistry"
E. Dimitrov, N. Toncheva-Moncheva, K. Mladenova, J. A. Doumanov, E. Vlassi, S. Pispas, S. Rangelov,
12th Scientific Session "Young researchers in the World of Polymers", Sofia, Bulgaria, June 6, 2021 (poster).

72. "Polymer concentration relationship with physicochemical properties and drug release kinetics of cationic polymer aggregates"
R. Stancheva, E. Haladjova, S. Pispas, S. Rangelov,
Scientific Conference "Kliment's days", Sofia, Bulgaria, November 5, 2021 (poster).

73. "Application of thermal analysis in combination with physicochemical characterization methods for the assessment of behavior and morphology of nanoparticles from lyotropic liquid crystals"
M. Chountoulesi, D. R. Perinelli, A. Forys, N. Pippa, V. Chrysostomou, G. Bonacucina, B. Trzebicka, S. Pispas, C. Demetzos,
9th Panhellenic Conference on Thermal Analysis and Calorimetry-Therma 2021, Virtual event, Thessaloniki, Greece, October 23-24, 2021 (oral).

74. “Complexation of glycogen with magnetic nanoparticles towards the formulation of biocompatible nanocarriers”
M. Karayianni, S. Pispas, E. D. Chrysina,
Applied Nanotechnology and Nanoscience International Conference, Virtual event, March 24-26, 2021 (oral).

75. “Glycogen/magnetic nanoparticles formulations towards biocompatible stimuli-responsive carriers”
M. Karayianni, S. Pispas, E. D. Chrysina,
35th Conference of the European Colloid & Interface Society-ECIS2021, Athens, Greece, September 5-10, 2021 (oral).

76. “Nanostructured biomaterials based on biopolymers with potential in biomedical and food sciences”
A. Papagiannopoulos,
13th Hellenic Polymer Society International Conference, Virtual Event, Athens, Greece, December 12-16, 2020 (oral).

77. “The binding kinetics of a multilayer film composed of alternating protein-polysaccharide layers and its responsiveness on pH changes”
N. Katsenou, N. Spiliopoulos, D. Anastassopoulos, A. Papagiannopoulos, C. Toprakcioglu,
13th Hellenic Polymer Society International Conference, Virtual Event, Athens, Greece, December 12-16, 2020, (poster).

78. “Using xanthan-based polysaccharide/protein nanoparticles to encapsulate and preserve curcumin”
A. Papagiannopoulos, A. Sklapani,
13th Hellenic Polymer Society International Conference, Virtual Event, Athens, Greece, December 12-16, 2020 (poster).

79. “Protein-Polysaccharide Nanoparticles stabilized by thermal treatment”
J. Allwang, Y. Li, S. Da Vela, D. Seliantis, A. Chroni, A. Papagiannopoulos, C. M. Papadakis,
Annual Meeting of DPG and DPG-Tagung (DPG Meeting) of the Condensed Matter Section (SKM), German Physical Society, Online Event, September 27-October 1, 2021 (poster).

80. “Protein and polysaccharide co-assemblies for applications in food and biomedical sciences”
A. Papagiannopoulos,
Sustainable Production of Biobased Products in the Bioeconomy Era, Online Worskhop, Agricultural University of Athens, Athens, Greece, November 10, 2021 (invited talk).

81. “Polysaccharide-protein alternating multilayers at the solid/water interface with potential in biomedical sciences”
A. Papagiannopoulos,
XXXV Panhellenic Conference on Solid State Physics and Materials Science, Virtual Conference, Athens, Greece, September 26-29, 2021 (oral).

82. “Preparations of protein nanoparticles by electrostatic complexation with polysaccharides and thermal denaturation”
A. Papagiannopoulos,

International online Conference on Macromolecules: Synthesis, Morphology, Processing, Structure, Properties and Applications (ICM-2021), Virtual Conference, September 10-12, 2021 (invited talk).

83. "Biocompatible nanoformulations of proteins by polysaccharides for the encapsulation of bioactive compounds"
A. Papagiannopoulos,
35th Conference of the European Colloid & Interface Society (hybrid conference), Athens, Greece, September 5-10, 2021 (oral).

84. "Thermally stabilized trypsin-chondroitin sulfate nanoparticles with tunable response in pH"
A. Chroni, D. Selianitis, J. Allwang, Y. Li, C. M. Papadakis, A. Papagiannopoulos,
35th Conference of the European Colloid & Interface Society (hybrid conference), Athens, Greece, September 5-10, 2021(poster).

85. "Growth of a multilayer film composed of alternating protein-polysaccharide layers on gold surface. A Surface Plasmon Resonance Study"
N.Katsenou, N. Spiliopoulos, D. L. Anastassopoulos, A.Papagiannopoulos, C.Toprakcioglu,
35th Conference of the European Colloid & Interface Society, Hybrid Conference, Athens, Greece, September 5-10, 2021, (poster).

86. "Xanthan-based polysaccharide/protein nanoparticles for the encapsulation of curcumin"
A. Papagiannopoulos,
4th International Conference on Applied Biochemistry and Biotechnology (ABB 2021) Virtual Conference, August 9-11, 2021 (invited talk).

87. "Structure-property correlations in tellurite glasses"
E.I. Kamitsos,
Glass Science Discussions (virtual conference), ISIS Facility, Rutherford Appleton Laboratory, United Kingdom; January 20, 2021 (invited talk).

88. "Ion conducting glasses in thin film forms by infrared techniques"
E.I. Kamitsos,
3rd Workshop on Size-Dependent Effects in Materials for Environmental Protection and Energy Applications (hybrid conference), Pomorie, Bulgaria; September 12-15, 2021 (invited plenary lecture).

89. "Alfred R. Cooper Distinguished Lecture in structure and ion dynamics in glass"
E.I. Kamitsos,
MS&T21: Materials Science & Technology (hybrid conference), Columbus, Ohio, USA; October 17-21, 2021 (2021 Alfred R. Cooper Distinguished Lecture).

90. "Optical basicity in oxy-nitride systems"
D. Möncke, E.I. Kamitsos,
MS&T21: Materials Science & Technology (hybrid conference), Columbus, Ohio, USA; October 17-21, 2021 (oral).

91. "Effect of the type of modifier cation on the bulk structure and nickel speciation in alkali borosilicate glasses"
L. Greiner, B. Topper, E.I. Kamitsos, R.E. Youngman, D. Möncke,
MS&T21: Materials Science & Technology (hybrid conference), Columbus, Ohio, USA; October 17-21, 2021 (poster).

92. "Structure and ion dynamics in glass"

E.I. Kamitsos,
14th Pacific Rim Conference on Ceramic and Glass Technology- PACRIM 14 / Glass & Optical Materials Division 2021 Annual Meeting GOMD 2021 (virtual conference), Vancouver, British Columbia Canada (December 12-17, 2021 (invited talk).

93. "Structural study of alkaline earth aluminosilicate glasses by spectroscopy"
J. Hunt, R.E. Youngman, A. Herrmann, E.I. Kamitsos, D. Möncke,
14th Pacific Rim Conference on Ceramic and Glass Technology- PACRIM 14 / Glass & Optical Materials Division 2021 Annual Meeting GOMD 2021 (virtual conference), Vancouver, British Columbia Canada (December 12-17, 2021 (virtual poster).

94. "Intercalation of kaolinite. New insights from a combined near-infrared and XRD investigation",
F. Andreou, E. Siranidi, G. D. Chryssikos, Z. Ciecielska, M. Szczerba, A. Derkowski, 3rd European Mineralogical Conference EMC 2020, Cracow, Poland, 29 August – 2 September 2021 (oral).

95. "The effect of deuteration and dehydration on the vibrational spectrum of expanded halloysites",
E. Siranidi, G. D. Chryssikos, S. Hillier,
3rd European Mineralogical Conference, EMC 2020, Cracow, Poland, 29 August – 2 September 2021 (oral).

96. "A palygorskite-smectite specialty clay from Ventzia basis, Western Macedonia, Greece, showing enhanced metal sorption capacity",
A. Argyraki, Z. Kypritidou, G. D. Chryssikos, M. Stamatakis, RawMat2021 International Conference on Raw Materials and Circular Economy, Athens, Greece, September 5-9, 2021 (oral).

97. "Near-infrared and XRD investigation of N-methylformamide intercalation in kaolinite",
F. Andreou, E. Siranidi, G. D. Chryssikos, Z. Ciesielska, M. Szczerba, A. Derkowski, XXXV Panhellenic Conference on Solid State Physics and Materials Science, Athens, Greece, September 26-29, 2021 (oral).

98. "Hybrid perovskites from two dimentional to three dimentiona",
G. A. Mousdis, M. Girtan,
XXXV Panhellenic Conference on Solid State Physics and Materials Science, Athens, Greece, September 26-29, 2021 (poster).

99. "Monitoring Deep Frying through front face Fluorescence Spectroscopy",
E. Ioannou, G. A. Mousdis, C. A. Georgiou,
9th Virtual Panhellenic Conference of Greek Lipid Forum, "Current Trends in the Field of Lipids", 22 October 2021 (oral).

100. "Incorporation of Peltier coolers on perovskite solar cells"
D. N. Kossyvakis, E. Christopoulos, V. Raptis, E. V. Christoforou, P. Falaras, A. Kaltzoglou,
Nanotexnology 2021, Thessaloniki, Greece, July 3-10, 2021 (invited talk).

101. "A study of halide perovskite structures combining Hirshfeld analysis with theoretical considerations"
V. Raptis, A. Kaltzoglou, P. Falaras,
Nanotexnology 2021, Thessaloniki, Greece, July 3-10, 2021 (poster).

102. "Temperature dependence of vibrational and emission characteristics in the 0D vacancy ordered Cs_2SnI_6 double perovskite"

G. V. Belessiotis, M. Arfanis, A. Kaltzoglou, V. Likodimos, Y. S. Raptis, P. Falaras, A. G. Kontos,
Nanotexnology 2021, Thessaloniki, Greece, July 3-10, 2021 (poster).

103. "Manipulating the preferred orientation of $(CH_3)_3SPbI_3$ hybrid perovskite"
G. K. Manolis, A. Kaltzoglou, P. Falaras,
XXXV Panhellenic Conference on Solid State Physics and Materials Science, Virtual Conference, Athens, Greece, September 26-29, 2021 (oral).

104. "Hirshfeld surface analysis and graph-theoretical considerations in the study of halide perovskite compounds and their structure-property relations"
V. Raptis, P. Falaras, A. Kaltzoglou,
XXXV Panhellenic Conference on Solid State Physics and Materials Science, Virtual Conference, Athens, Greece, September 26-29, 2021 (oral).

105. "Laser-structured ZnO/p-Si photodetector with enhanced and broadband responsivity"
G. Chatzigiannakis, A. Jaros, R. Leturcq, J. Jungclaus, T. Voss, S. Gardelis, M. Kandyla, Conference on Lasers and Electro-Optics (CLEO), San Jose, CA USA, May 9-14, 2021 (oral).

106. "Laser-structured ZnO/p-Si photodetector with enhanced and broadband UV-Vis-NIR responsivity"
G. Chatzigiannakis, A. Jaros, R. Leturcq, J. Jungclaus, T. Voss, S. Gardelis, M. Kandyla, European Materials Research Society (E-MRS) Spring Meeting, Strasbourg, France, May 31-June 4, 2021 (oral).

107. "Hierarchical surfaces with reversible photoinduced and heat-induced wettability: ZnO nanorods on laser-microstructured silicon"
M. Kanidi, A. Bardakas, A. Kerasidou, A. Anastasopoulos, C. Tsamis, M. Kandyla,
18th International Conference on Nanosciences and Nanotechnologies, Thessaloniki, Greece, July 3-10, 2021 (oral).

108. "Laser-microstructured ZnO/Si heterojunction photodetectors"
G. Chatzigiannakis, A. Jaros, R. Leturcq, J. Jungclaus, T. Voss, S. Gardelis, M. Kandyla, European Congress and Exhibition on Advanced Materials and Processes (EUROMAT), Virtual Conference, September 13-17, 2021 (oral).

109. "Hierarchical surfaces with reversible photoinduced and heat-induced wettability: ZnO nanorods on laser-microstructured silicon"
M. Kanidi, A. Bardakas, A. Kerasidou, A. Anastasopoulos, C. Tsamis, M. Kandyla,
Micro and Nano Engineering Conference (MNE), Turin, Italy, September 20-23, 2021 (poster).

110. "Growth of breast cancer cells on patterned surfaces"
A. Papadimitropoulou, Z. Chakim, M. Kanidi, C. Charalampous, G. Tsekenis, M. Kandyla, 35th Panhellenic Conference on Solid-State Physics and Materials Science, Athens, Greece, September 26-29, 2021 (poster).

111. "Isotype ZnO/n-Si photodetector with broadband wavelength-selective operation and variable polarity"
G. Chatzigiannakis, A. Jaros, R. Leturcq, J. Jungclaus, T. Voss, S. Gardelis, M. Kandyla,
35th Panhellenic Conference on Solid-State Physics and Materials Science, Athens, Greece, September 26-29, 2021 (oral).

112. "Chaotic and thermodynamic interplay in nanocavities"
V. Gavriil, A. C. Cefalas, Z. Kollia, E. Sarantopoulou,

Entropy 2021: The Scientific Tool of the 21st Century (MDPI), May 5-7, 2021 (oral).

113. "Ultrathin dynamically tunable black phosphorus polarization state converters"
N. Matthaiakakis, S. Droulias, G. Kakarantzas,
XXXV Panhellenic Conference on Solid State Physics and Materials Science, Athens, Greece, September 26-29, 2021 (oral).

7. Wider Public Dissemination

1. "Ion-selective electrochemical sensor for biological fluids"
A. Stergiou, C. Stangel, N. Tagmatarchis
International Exhibition Thessaloniki, Greece, September 11-19, 2021.
2. "Ion-selective electrochemical sensor for biological fluids",
A. Stergiou, C. Stangel, N. Tagmatarchis,
Researchers Night, NTUA, Athens, Greece, September 24, 2021.
3. "Nanoscale surface topology is connected with physical interactions in materials and cells",
V. Gavriil, D. Christofilos, G. Kourouklis, E. Sarantopoulou,
5th 2-day workshop of PhD Candidates and Postdoctoral researchers of Department of Chemical Engineering (AUTh), Thessaloniki, Greece, April 26-27, 2021.
4. "Vibrational spectroscopy masterclass: infrared"
G. D. Chryssikos
Spectroscopy Days 2021, Institute of Nanoscience and Nanotechnology, NCSR "Demokritos", Athens, Greece, May 13, 2021.
5. "New organic – inorganic hybrid materials as possible replacement for lead perovskites at photovoltaic applications"
G. A. Mousdis
JUMP2Excel School 2 school (a EU program training for young researchers and high-level technical staff addressing topics in the field of PV integration, related technologies and electricity markets) Malta, March 22-26, 2021.
6. "Detecting the world around us (Sensors and Chemometric Applications)"
G. A. Mousdis.
Physics Enchants a series of lectures for Lyceum students of the Greek Physicists Union Online, March 28, 2021.
7. "Flexible Photovoltaics"
G. A. Mousdis.
Physics Enchants a series of lectures for Lyceum students of the Greek Physicists Union, University of West Attica, Athens, Greece, December 17-19, 2021.
8. "Detecting the world around us (Sensors and Chemometric Applications"
G. A. Mousdis,
Lectures to Sumer school for Lyceum students, Aigina, Greece, June 27-29, 2021.
9. "Enhancing the performance and durability of perovskite solar cells via Peltier cooling",
A. Kaltzoglou,
Online PEARL PV Workshop WG2: Early Career Forum on Photovoltaic Module and System Reliability, December 15, 2021.
10. "Materials synthesis for photovoltaic and thermoelectric applications",
A. Kaltzoglou,

Department of Chemistry, National and Kapodistrian University of Athens, Athens, Greece, December 17, 2021.

11. “Laser processing for photonics and optoelectronics”
    M. Kandyla,
    Foundation for Research and Technology – Hellas (FORTH), Heraclion, Greece, February 2021 (invited seminar).
12. “Heavy metal ions removal from water by “smart” temperature responsive block copolymer nanoparticles”
    M. Kafetzi, S. Pispas
    International Exhibition Thessaloniki, Greece, September 11-19, 2021.