

CURRICULUM VITAE

Efstratios I. Kamitsos

Director, TPCI/NHRF

Theoretical and Physical Chemistry Institute
National Hellenic Research Foundation
48 Vassileos Constantinou Ave.
Athens 11635, Greece

Phone: +30 210 7273828

Fax: +30 210 7273794

E-mail: eikam@eie.gr



EDUCATION

Ph.D. in Physical-Inorganic Chemistry, Brown University, USA (1983)

Diploma in Chemistry, University of Athens, Greece (1978).

PROFESSIONAL EXPERIENCE AND APPOINTMENTS

- Director & Chairman of the Board, NHRF (03/2012-10/2013)
- Director, TPCI/NHRF (10/1997-10/02, 01/2004-01/09, 06/2009-6/15, 6/2015-)
- Director of Research, TPCI/NHRF (11/1997-)
- Senior Researcher, TPCI/NHRF (03/1990-10/97)
- Assistant Researcher, TPCI/NHRF (03/1984-03/90)
- Research Associate (during military service), National Defense Research Center, Greece (09/1984-04/85)
- Postdoctoral Research Associate, Materials Research Laboratory, Brown University (01/1983-12/83)
- Teaching & Research Assistant, Department of Chemistry, Brown University (01/1979-01/83).

MAIN RESEARCH INTERESTS

Materials physical chemistry:

- Ionic conducting glasses: synthesis, structure and dynamics (vibrational and dielectric spectroscopy, molecular dynamics simulations)
- Nanostructured glassy and organic-inorganic hybrid materials with advance electrical and optical functionalities
- Ion-exchange and thermal-poling processes to induce optical functionalities in inorganic glasses
- Studies of archaeological glass, from Mycenaean to Roman and to the Byzantine period, by non-destructive spectroscopic techniques to trace provenance, technology and trade routes.

EXTERNAL FUNDING

Coordinator or participant in more than forty national and international research projects in collaboration with academic and industrial organizations (national: STRIDE, Networks,

PENED, PAVE, Istos, Bilateral Scientific Schemes, AKMON, KRIPIS I, KRIPIS II, National Infrastructures; NATO: Int'l Scientific Exchange Programs; EU: Human Potential, Marie Curie, INCO, STREP, People, TOK).

CONFERENCES AND INVITED TALKS

Over 75 international conferences. More than 60 invited lectures at conferences, academic and research institutions. Member of organizing or scientific committees of 27 international and 6 national conferences. Co-chairman of the Int'l Symposium on Glass Science and Technology (Athens, 1993); Co-organizer of session on Spectroscopic Studies of Glass Structure, 18th International Congress on Glass (San Francisco, California, 1998); Co-chairman of the 7th ESG Conference on Glass Science and Technology (Athens, 2004).

TEACHING ACTIVITIES

Part of graduate courses in Applied Molecular Spectroscopy (Chem. Dept., U. Crete, 1998-2000), Polymer Science and Applications (Chem. Dept., U. Athens, 2002-2009, 2011), and Cultural Heritage: Materials & Technologies (Dept. of History, Archaeology & Cultural Resources Management, U. Peloponnese, 2017). Supervision at TPCI of seventeen post-doctoral fellows, eleven Ph.D., two MSc and five honors students.

RESEARCH MANAGEMENT AND EVALUATION

Member (09/1992-10/97) and chairman (11/1997-) of the Scientific Advisory Council of the TPCI. Director of the TPCI/NHRF (10/1997-10/02, 01/2004-01/09, 06/2009-6/15, 6/2015-), member of the Board of the NHRF (11/1997-) and Director & Chairman of the Board, NHRF (03/2012-10/2013). Member of numerous electoral committees for researchers and institute directors of Greek Research Centers (1995-) and for faculty members of Greek Universities (2015-). Regular referee for more than fifty international journals in the fields of physical chemistry, physics and materials science. Reviewer for national and international research projects. Member of the TES Natural Sciences of the National Council for Research & Technology (ESET) in Greece (6/2011-10/2017); national expert for the Horizon 2020/EC programs European Research Council, Marie Skłodowska-Curie actions and Future and Emerging Technologies (2/2014-); member of the Board of the Greek Research and Technology Network, GRNET (7/2014-).

PROFESSIONAL AFFILIATIONS & ACTIVITIES – PAST & PRESENT

Association of Greek Chemists; Hellenic Ceramic Society; Advisory Panel on Physical and Engineering Science & Technology of the NATO Science Committee (11/2002-6/04); Int'l Board of Advisers of the Int'l Materials Institute for New Functionality in Glass (2004-2007); Technical Committees on Basic Glass Science (2001-) & Vibrations and Glass Structure (2009-) of the Int'l Commission on Glass (ICG); Council of the ICG (09/2004-).

AWARDS AND DISTINCTIONS

State Scholarships Foundation of Greece (1973-77); Brown University Fellowship by Du Pont (1979); Brown University Fellowships (1980-83); Sigma Xi-Elected (1981); The Potter Prize in chemistry for the best Ph.D. thesis, Brown University (1984).

PUBLICATIONS

- Over 190 papers in refereed journals
- 2 int'l patents

- 6 invited papers/chapters in books
- over 65 articles in proceedings of int'l and national conferences
- co-editor of 2 books
- More than 5,800 citations and h-index=38 (ISI Web of Science, Jan. 2018).

RECENT PUBLICATIONS

1. "Mixed-modifier effect in alkaline earth metaphosphate glasses", K. Griebenow, C.B. Bragatto, E.I. Kamitsos, and L. Wondraczek, [J. Non-Cryst. Solids 481, 447 \(2018\)](#).
2. "Molecular dynamics study of structural reorganization by electro-thermal poling in sodium diborate glass", A. Vegiri and E.I. Kamitsos, [J. Non-Cryst. Solids 472, 14 \(2017\)](#).
3. "Synthesis, thermal and structural properties of pure TeO₂ glass and zinc-tellurite glasses", N.S. Tagiara, D. Palles, E.D. Simandiras, V. Psycharis, A. Kyritsis, and E.I. Kamitsos, [J. Non-Cryst. Solids 457, 116 \(2017\)](#).
4. "Structural stability, vibrational properties and photoluminescence in undoped and SnF₂-doped CsSnI₃ perovskites", A. Kontos, A. Kaltzoglou, E. Siranidi, D. Palles, G. Angeli, M. Afranis, V. Psycharis, Y.S. Raptis, E.I. Kamitsos, P. Trikalitis, C. Stoumpos, M. Kanatzidis, and P. Falaras, [Inorg. Chem. 56, 84 \(2017\)](#).
5. "Transition and post-transition metal ions in borate glasses: Borate ligand speciation, cluster formation and their effect on glass transition and mechanical properties", D. Möncke, E.I. Kamitsos, D. Palles, R. Limbach, A. Winterstein-Beckmann, T. Honma, Z. Yao, T. Rouxel, and L. Wondraczek, [J. Chem. Phys. 145, 124501 \(2016\)](#).
6. "Technology issues of Byzantine glazed pottery from Corinth, Greece", E. Palamara, N. Zacharias, M. Xanthopoulou, Zs. Kasztovszky, I. Kovacs, D. Palles, and E.I. Kamitsos, [Microchem. J. 129, 137 \(2016\)](#).
7. "Halogen effects on ordering, orientation and bonding of CH₃NH₃⁺ in CH₃NH₃PbX₃ (X = Cl, Br, I) hybrid perovskites: A vibrational spectroscopic study", R.G. Niemann, A.G. Kontos, D. Palles, E.I. Kamitsos, A. Kaltzoglou, F. Brivio, P. Falaras, and P.J. Cameron, [J. Phys. Chem. C 120, 2509 \(2016\)](#).
8. "Vibrational spectroscopic and bond valence study of structure and bonding in Al₂O₃-containing AgI-AgPO₃ glasses", D. Palles, I. Konidakis, C.P.E. Varsamis, and E.I. Kamitsos, [RSC Adv. 6, 16697 \(2016\)](#).
9. "Ultrashort pulse induced modifications in ULE - from nanograting formation to laser darkening", S. Richter, D. Möncke, F. Zimmermann, E.I. Kamitsos, L. Wondraczek, A. Tünnermann, and S. Nolte, [Opt. Mater. Express 5, 1834 \(2015\)](#).
10. "Ionic conductivity and self-assembly in poly(isoprene-b-ethylene oxide) electrolytes doped with LiTf and EMITf", G. Zardalidis, E.F. Ioannou, K.D. Gatsouli, S. Pispas, E.I. Kamitsos, and G. Floudas, [Macromolecules 48, 1473 \(2015\)](#).

11. "Structure and properties of orthoborate glasses in the $\text{Eu}_2\text{O}_3\text{-(Sr,Eu)O-B}_2\text{O}_3$ quaternary", A. Winterstein-Beckmann, D. Möncke, D. Palles, E.I. Kamitsos, and L. Wondraczek, [J. Phys. Chem. B 119, 3259 \(2015\)](#).
12. "Partitioning and structural role of Mn and Fe ions in ionic sulfophosphate glasses", S. Sirotkin, D. Möncke, E. Stavrou, E.I. Kamitsos, and L. Wondraczek, [J. Chem. Phys. 141, 224509 \(2014\)](#).
13. "Effect of temperature on the direct synthesis of gold nanoparticles mediated by poly(dimethyl aminoethyl methacrylate) homopolymer", G. Mountrichas, S. Pispas, and E.I. Kamitsos, [J. Phys. Chem. C 118, 22754 \(2014\)](#).
14. "Raman spectroscopic study of structural changes induced by micro-indentation in low alkali borosilicate glasses", A. Winterstein-Beckmann, D. Möncke, D. Palles, E.I. Kamitsos, and L. Wondraczek, [J. Non-Cryst. Solids 401, 110 \(2014\)](#).
15. "Lithium ion conducting boron-oxynitride amorphous thin films: Synthesis and molecular structure by infrared spectroscopy and density functional theory modeling", M. Dussauze, E.I. Kamitsos, P. Johansson, A. Matic, C.P. Varsamis, D. Cavagnat, P. Vinatier, and Y. Hamon, [J. Phys. Chem. C 117, 7202 \(2013\)](#).
16. "Formation of an outer borosilicate glass layer on Late Bronze Age Mycenaean blue vitreous relief fragments", D. Möncke, D. Palles, N. Zacharias, M. Kaparou, E.I. Kamitsos, and L. Wondraczek, [Phys. Chem. Glasses: Eur. J. Glass Sci. Technol. B 54, 52 \(2013\)](#).
17. "Synthesis and multiscale evaluation of LiNbO_3 -containing silicate glass-ceramics with efficient isotropic SHG response", H. Vigouroux, E. Fargin, S. Gomez, B. Le Garrec, G. Mountrichas, E.I. Kamitsos, F. Adamietz, M. Dussauze, and V. Rodriguez, [Adv. Funct. Mater. 22, 3985 \(2012\)](#).
18. "Investigation of CuI-containing molybdophosphate glasses by infrared reflectance spectroscopy", C.P.E. Varsamis, E.I. Kamitsos, T. Minami, and N. Machida, [J. Phys. Chem. C 116, 11671 \(2012\)](#).
19. "Crystallization and second harmonic generation of lithium niobium silicate glass ceramics", H. Vigouroux, E. Fargin, A. Fargues, B. Le Carrec, M. Dussauze, V. Rodriguez, F. Adamietz, G. Mountrichas, E.I. Kamitsos, S. Lotarev, and V. Sigaev, [J. Am. Ceram. Soc. 94, 2080 \(2011\)](#).
20. "SHG and orientation phenomena in chromophore DR1 containing polymer films", D. Möncke, G. Mountrichas, S. Pispas, E.I. Kamitsos, and V. Rodriguez, [Photonics Nanostuct. 9, 119 \(2011\)](#).