# Asterios (Stergios) Pispas

Director of Research Theoretical and Physical Chemistry Institute

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# Education

Diploma in Chemistry, University of Athens, Greece (1989) Ph. D. in Polymer Chemistry, University of Athens, Greece (1994)

## **Research and Teaching Appointments**

2014-	Director	of	Research,	Theoretical	and	Physical	Chemistry	Institute,
	National Hellenic Research Foundation, Athens, Greece.							

- 2009-2014 Senior Researcher, Theoretical and Physical Chemistry Institute, National Hellenic Research Foundation, Athens, Greece.
- 2004-2009 Associate Researcher, Theoretical and Physical Chemistry Institute, National Hellenic Research Foundation, Athens, Greece.
- 2001-2004 Visiting Researcher, National Hellenic Research Foundation, Athens, Greece.
- 1997-2004 Research Associate, Department of Chemistry, University of Athens, Greece.
- 1994-1995 Post Doctoral Fellow, Department of Chemistry, University of Alabama at Birmingham, USA.

#### **Main Research Interests**

- Synthesis and molecular characterization of well defined polymers by anionic polymerization and controlled free radical polymerization.
- Amphiphilic block copolymers and polyelectrolytes.
- Block copolymer self-assembly in solutions.
- Nanoscale complexes from polyelectrolytes, surfactants, proteins and DNA.
- Morphology, bulk properties and phase transitions of block copolymers of various architectures.
- Polymer nanostructures in hybrid materials synthesis.

• Nanostructured organic-inorganic hybrid materials based on polymers.

## **External Funding Projects**

Coordinator or collaborator in 20 national and international research projects in collaboration with academic and industrial organizations.

## **Conferences and Invited Talks**

Over 260 announcements in international and national conferences. 28 invited lectures in academic/research institutions and conferences. Member of the organizing committee of the IUPAC-International Symposium on Ionic Polymerization-IP 2001" (Athens, 2001), the XXIII Panhellenic Conference on Solid State Physics and Materials Science (Athens, 2007) and the ICO-Photonics 2009 Topical Meeting (Delphi, 2009). Member of the scientific committee of the 74<sup>th</sup> Prague Meeting on Macromolecules (Prague, 2010).

## **Teaching Activities**

Participation in the teaching of four graduate courses in the framework of the Graduate Program "Polymer Science and its Applications" (Department of Chemistry, University of Athens, 1998-2008). Supervision of 12 Ph. D., 18 Masters and 14 honors students and 7 post-doctoral fellows. Member of several Ph.D. and Masters examination committees.

#### **Honors and Awards**

The American Institute of Chemists Foundation Award for Outstanding Post-doctoral Fellow (1995). A. K. Doolittle Award (2003, American Chemical Society).

#### **Professional Affiliations and Activities**

Member of the TPCI Scientific Council (2013- ). Associate Editor for the European Physical Journal E: Soft Matter (2003-2012). Member of the Editorial Board of The Open Macromolecules Journal (2007- ) and of Journal of Materials (2011- ). Member of the Advisory Board of REGPOT project POLINNOVA (Institute of Polymers, Bulgarian Academy of Sciences, 2012- ). Member of the Association of Greek Chemists and Greek Polymer Society. Reviewer of national and international project proposals. Reviewer for several international journals on macromolecules, materials science and physical chemistry.

## Publications

Over 190 original research papers in refereed journals. 13 invited review articles. 25 publications in conference proceedings. Seven chapters in books and encyclopedias. Co-author of two books. Over 5000 citations and h-index=34.

# **Selected Recent Publications**

- "Metal-free controlled ring-opening polymerization of ε-caprolactone in bulk using tris(pentafluorophenyl)borane as a catalyst", J. Xu, J. Song, S. Pispas and G. Zhang, <u>Polymer Chemistry</u>, 5, 4726 (2014)
- "Amphiphilic diblock copolymer-based multiagent photonic sensing scheme", L. Athanasekos, A. El Sachat, S. Pispas and C. Riziotis, <u>J. Polym. Sci. Part B;</u> <u>Polym. Phys., 52, 46 (2014)</u>
- "PEO-b-PCL/DPPC chimeric nanocarriers: self-assembly aspects in aqueous and biological media and drug incorporation", N. Pippa, E. Kaditi, S. Pispas and C. Demetzos, <u>Soft Matter 9, 4073 (2013)</u>
- "Polyplexes based on cationic polymers with strong nucleic acid binding properties", A. K. Varkouhi, G. Mountrichas, R. M. Schiffelers, T. Lammers, G. Storm, S. Pispas and W. E. Hennik, <u>Eur. J. Pharm. Sci., 45, 459 (2012)</u>
- "Complexation of stimuli-responsive star-like amphiphilic block polylectrolyte micelles with lysozyme", M. Karayianni and S. Pispas, <u>Soft Matter, 8, 8758</u> (2012)
- "Self-assembled nanostructures in mixed anionic-neutral double hydrophilic block copolymer/cationic vesicle-forming surfactant solutions", S. Pispas, <u>Soft</u> <u>Matter, 7, 474 (2011)</u>
- "How does a star chain (nanooctopus) crawl through a nanopore?", H. Ge, S. Pispas and C. Wu, <u>Polym. Chem., 2, 1071 (2011)</u>
- "Thermoresponsive core-shell brush copolymers with poly(propylene oxide)block-poly(ethylene oxide) side chains via a "grafting from" technique", J. Zhao, G. Mountrichas, G. Zhang and S. Pispas, <u>Macromolecules 43, 1771 (2010)</u>
- "Multicompartment nanoparticles formed by a heparin-mimicking block terpolymer in aqueous solutions", M. Uchman, M. Stepanek, K. Prochazka, G. Mountrichas, S. Pispas, I. K. Voets and A. Walther, <u>Macromolecules 42, 5605</u> (2009)

10. "Polymer mediated formation of corona-embedded gold nanoparticles in block polyelectrolyte micelles", A. Meristoudi and S. Pispas, <u>Polymer, 50, 2743 (2009)</u>