

Aristeidis Papagiannopoulos

PUBLICATIONS – January 2014

A. DOCTORATE THESIS

“The Structure and Dynamics of Polyelectrolyte Combs”, School of Physics and Astronomy, University of Leeds, Leeds, United Kingdom (2005).

B. PAPERS IN REFEREED JOURNALS

1. “Thermoresponsive transition of a PEO-b-PNIPAM copolymer: From hierarchical aggregates to well defined ellipsoidal vesicles”, A. Papagiannopoulos, J. Zhao, G. Zhang, S. Pispas and A. Radulescu, *Polymer* 54 (23), 6373-6380 (2013).
2. “Merging High Doxorubicin Loading with Pronounced Magnetic Response and Biorepellent Properties in Hybrid Drug Nanocarriers”, A. Bakandritsos, A. Papagiannopoulos, E. N. Anagnostou, K. Avgoustakis, R. Zboril, S. Pispas et al., *Small*, 8 (15), 2381-2393 (2012).
3. “Biological and Biomimetic Comb Polyelectrolytes”, T.A. Waigh, A. Papagiannopoulos, *Polymers* 2, 57-70 (2010).
4. “Self-Assembled Nanoparticles from a Block Polyelectrolyte in Aqueous Media: Structural Characterization by SANS”, A. Papagiannopoulos, M. Karayianni, G. Mountrichas, S. Pispas and A. Radulescu, *Journal of Physical Chemistry B* 114, 7482-7488 (2010).
5. “Scattering Study of the Structure of Polystyrene Sulfonate Comb Polyelectrolytes in Solution”, A. Papagiannopoulos, C. Fernyhough, T.A. Waigh. and A. Radulescu, *Macromolecular Chemistry and Physics* 209 (24), 2475-2486 (2009).
6. “Optical coherence tomography picorheology of biopolymer solutions”, R.C. Sharma, A.

Papagiannopoulos and T.A. Waigh, Applied Physics Letters 92, 173903 (2008)..

7. "The viscoelasticity of self-assembled proteoglycan combs", A. Papagiannopoulos, T.A. Waigh and T. Hardingham, Faraday Discussion 139: The Importance of Polymer Science for Biological Systems 337-357 (2008).
8. "Charge and Interfacial Behavior of Short Side-Chain Heavily Glycosylated Porcine Stomach Mucin", G. Yakubov, A. Papagiannopoulos, E. Rat and T. Waigh, Biomacromolecules 8(12), 3791-3799 (2007).
9. "Molecular Structure and Rheological Properties of Short-Side-Chain Heavily Glycosylated Porcine Stomach Mucin", G. Yakubov, A. Papagiannopoulos, E. Rat, R. Easton and T. Waigh, Biomacromolecules, 8 (11), 3467 -3477 (2007).
10. "Solution Structure and Dynamics of Cartilage Aggrecan", A. Papagiannopoulos, T.A. Waigh, T. Hardingham and M. Heinrich, Biomacromolecules 7, 2162-2172 (2006).
11. "The microrheology of polystyrene sulfonate combs in aqueous solution", A. Papagiannopoulos, C. Fernyhough and T.A.Waigh., Journal of Chemical Physics, 123, 214904 (2005.)
12. "Microrheology of Polymeric Solutions using X-ray Photon Correlation Spectroscopy", A. Papagiannopoulos, T.A.Waigh. A. Fluerasu, C. Fernyhough and A. Madsen, Journal of Physics: Condensed Matter, 2005, 17, L279-L285 (2005). Selected in Highlights 2005 ESRF.
13. "Entanglement Coupling in Porcine Stomach Mucin", T.A. Waigh, A. Papagiannopoulos, A. Voice, R. Bansil, A.P. Unwin, C. Dewhurst, B. Turner, N. Afdhal, Langmuir, 18, 7188-7195 (2002).

C. PUBLICATIONS IN INTERNATIONAL CONFERENCE PROCEEDINGS

1. "Water and protein dynamics in protein water mixtures studied by dielectric techniques", A. Papagiannopoulos, P. Pissis, A. Kyritsis, N. Shinyashiki, S. Yagihara, W. Yamamoto, T. Yoshinari, Proc. ISEMA 2009, "8th International Conference on

Electromagnetic Wave Interaction with Water and Moist Substances”, June 2009, Helsinki (Finland), (2009)

2. “Synthesis and characterization of biomimetic polystyrene sulfonate combs”, C. M. Fernyhough*, A. J. Ryan, T. A. Waigh and A. Papagiannopoulos, 2005 Fall National ACS Meeting, Division of Polymer Chemistry, Washington DC, USA August 28-Sept. 1, 2005 (oral presentation).

D. INTERNATIONAL CONFERENCE PRESENTATIONS

3. “Microrheology of Self-Assembled Proteoglycans”, A. Papagiannopoulos*, T.E.Hardingham and T.A. Waigh, Microrheology and Rheological Phenomena in Microfluidics; Karlsruhe, Germany, October 4-5, 2006 (poster presentation).
4. “The Solution Structure and Dynamics of Cartilage Aggrecan”, A. Papagiannopoulos*, T.A. Waigh, T. Hardingham and M. Heinrich, Branched Macromolecular Structures EUPOC 2006; Milan, Italy, May 7-12, 2006 (oral presentation).
5. “The Structure and Dynamics of Polyelectrolyte Combs”, A. Papagiannopoulos *, C.Fernyhough, T.E. Hardingham and T.A.Waigh, Soft Condensed Matter Physics in Molecular and Cell Biology, NATO ASI and SUSSP59, Edinburgh, United Kingdom, March 29- April 8, 2004 (poster presentation).
6. “The Structure and Dynamics of Polyelectrolyte Combs”, A. Papagiannopoulos*, C.Fernyhough, T.E. Hardingham and T.A.Waigh, Colloidal, Macromolecular & Polyelectrolyte Solutions, Ventura Beach California, USA, February 1-6, 2004 (poster presentation).
7. “Particle Tracking Microrheology Methods for the Study of Synthetic and Biological Polymer Solutions”, A. Papagiannopoulos*, C.Fernyhough, T.E. Hardingham and T.A.Waigh, IOP Polymer Group - The Physics of Biological Polymers, IOP Conference Centre, Portland Place, London, United Kingdom, August 4, 2003 (poster presentation).

E. NATIONAL CONFERENCE PRESENTATIONS

8. “Thermoresponsive Transition of a PEO-b-PNIPAM block copolymer: from Hierarchical Aggregates to Well Defined Ellipsoidal Vesicles”, A. Papagiannopoulos*, J. Zhao, G. Zhang, S. Pispas and A. Radulescu, XXIX Panhellenic Conference on Solid State Physics and Materials Science; Athens, Greece, September 22-25, 2013 (oral presentation).
9. “Scattering Study of Complexation of Lysozyme with Triblock Polyelectrolyte Micelles”, A. Papagiannopoulos*, M. Karayianni, G. Mountrichas, S. Pispas and A. Radulescu, XXIX Panhellenic Conference on Solid State Physics and Materials Science; Athens, Greece, September 22-25, 2013 (poster presentation).
10. “Thermoresponsive Aggregation of PS-PNIPAM-PS triblock copolymer in aqueous solutions”, A. Papagiannopoulos*, J. Zhao, S. Pispas and A. Radulescu, XXIX Panhellenic Conference on Solid State Physics and Materials Science; Athens, Greece, September 22-25, 2013 (poster presentation).

G. OTHER ORAL PRESENTATIONS & INVITED TALKS

1. “Small Angle Neutron Scattering on Self-Assembled Nanoparticles”, Technical University of Munich, Department of Physics, Munich, Germany, seminar, January 28, 2013.
2. “Microrheology of Comb Polyelectrolyte Solutions”, Institute of Electronic Structure and Laser, Heraklion, Greece, seminar, January 15, 2009.
3. “Microrheology of Polyelectrolyte Combs”, Heidelberg University, Department of Physics and Astronomy, seminar, Heidelberg, Germany October 6, 2006.