

Academic Curriculum Vitae – Mehran Asad Ayoubi (Ph.D.)



(I) Contact information

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(II) Education

- Feb. 2008 – Dec. 2012 Ph.D. in Chemistry with specialization in Physical Chemistry, Division of Physical Chemistry, Lund University, Sweden (<http://www.physchem.lu.se/>)
- Sept. 2005 – June 2007 M.S. in Physics, Chair of Polymer & Crystal Physics, Faculty of Physics, Lomonosov Moscow State University, Russia (<http://polly.phys.msu.ru/en/>)
- Sept. 1997 – June 2002 B.S. in Polymer Engineering, Department of Polymer Engineering, Amirkabir University of Technology, Iran
- Sept. 1993 – June 1997 High school education at National Organization for Development of Exceptional Talents, Karaj, Iran

(III) Professional experience & achievements

- Feb. 2020 – present Freelance academic editor
- Jan. 2016 – Jan. 2017 Postdoctoral Researcher (Iran National Elites Foundation), Iran Polymer and Petrochemical Institute, Iran
- Nov. 2014 – present R&D consultant at pharmaceutical companies
- Sept. 2009 – Dec. 2012 Visiting Ph.D. student at Department of Micro- & Nanotechnology, Technical University of Denmark, Denmark
- Sept. 2009 Recipient of Stiftelsen Bengt Lundqvist Minne scholarship
- Oct. 2007 – Jan. 2008 Researcher at Division of Physical Chemistry, Lund University, Sweden
- July 2006 – Aug. 2006 Visiting M.S. student at Faculty of Physics, Kyoto University, Japan
- Feb. 2006 Visiting M.S. student at Faculty of Physics, Kyoto University, Japan

(IV) Research fields

- General fields: Physical pharmacy, polymer science, surface and colloid science
- Specialized fields:
 - Surfactant/lipid self-assembly: micelles, lyotropic liquid crystals, liposomes, emulsions, micro-emulsions, nano-emulsions, suspensions, hydrogels, etc.
 - Protein/peptide therapeutics self-assembly: in collaboration with University of Bergen (Norway)

(V) Language & computer skills

- Languages: English (fluent), Russian (good)
- Computer software: SPSS, Igor Pro, Origin, Maple, MATLAB, Microsoft Office

(VI) Publications in journals/book chapter (corresponding authorship is marked by *)(1–8)

1. Cao J, **Ayoubi MA**, Wang W. Carbon Aerogels for Supercapacitor Applications BT - Nanostructured Materials for Supercapacitors. In: Thomas S, Gueye AB, Gupta RK, editors. Cham: Springer International Publishing; 2022. p. 183–99. Available from: https://doi.org/10.1007/978-3-030-99302-3_9
2. Li N, **Ayoubi MA**, Chen H, Wang J, Wang W. Co-hydrogelation of Dendritic Surfactant and Amino Acids in Their Common Naturally-occurring Forms: A Study of Morphology and Mechanisms. Colloid J [Internet]. 2019;81(3):253–60. Available from: <https://doi.org/10.1134/S1061933X19030098>
3. Xie H, **Asad Ayoubi M**, Lu W, Wang J, Huang J, Wang W. A unique thermo-induced gel-to-gel transition in a pH-sensitive small-molecule hydrogel. Sci Rep [Internet]. 2017;7(1):8459. Available from: <https://doi.org/10.1038/s41598-017-09304-z>
4. **Asad Ayoubi M***, Almdal K, Zhu K, Nyström B, Olsson U, Piculell L. Self-assembly of block copolymer-

based ionic supramolecules based upon multi-tail amphiphiles. RSC Adv [Internet]. 2015;5(39):31091–103. Available from: <http://dx.doi.org/10.1039/C5RA03220B>

5. **Asad Ayoubi M***, Almdal K, Zhu K, Nyström B, Olsson U, Piculell L. Lamellar Microdomains of Block-Copolymer-Based Ionic Supramolecules Exhibiting a Hierarchical Self-Assembly. *Macromolecules* [Internet]. 2014 May 27;47(10):3428–35. Available from: <https://doi.org/10.1021/ma500232y>
6. **Asad Ayoubi M***, Zhu K, Nyström B, Olsson U, Almdal K, Khokhlov AR, et al. Morphological investigation of polydisperse asymmetric block copolymer systems of poly(styrene) and poly(methacrylic acid) in the strong segregation regime. *J Polym Sci Part B Polym Phys* [Internet]. 2013 Dec 1;51(23):1657–71. Available from: <https://doi.org/10.1002/polb.23389>
7. **Ayoubi MA***, Zhu K, Nyström B, Almdal K, Olsson U, Piculell L. Micro- and nanophase separations in hierarchical self-assembly of strongly amphiphilic block copolymer-based ionic supramolecules. *Soft Matter* [Internet]. 2013;9(5):1540–55. Available from: <http://dx.doi.org/10.1039/C2SM27113C>
8. **Ayoubi MA**, Zinchenko AA, Philippova OE, Khokhlov AR, Yoshikawa K. Visualization of different pathways of DNA release from interpolyelectrolyte complex. *J Phys Chem B* [Internet]. 2007 Jul;111(29):8373–8. Available from: <http://dx.doi.org/10.1021/jp070261w>

(VII) Selected publications in peer-reviewed conferences

- *10th Annual Surface & Colloid Symposium: Molecular Processes at Solid Surfaces*, Lund, Sweden, November 24-26, **2010** (Conference Proceedings, pg#37)
- *7th Nordic Workshop on Scattering from Soft Matter*, Helsinki, Finland, January 27-28, **2010** (Book of Abstracts, pg#PO1)
- *9th Annual Surface & Colloid Symposium: Dynamics, Steady State & Arrest*, Lund, Sweden, November 18-20, **2009** (Conference Proceedings, pg#40)
- *4th Kargin's Conference: Polymer Science at the 21st Century*, Moscow, Russia, 29 January-2 February, **2007** (Conference Proceedings, vol. 2, pg#353 & pg#352)

(VIII) Speaker at conferences

- Melt self-assembly of polymeric supramolecules, **M. Asad Ayoubi**, *Soft & Hard Materials: A Symposium on Surface & Materials Chemistry*, Lund, Sweden, October 25-27, **2011** (Conference Proceedings, pg#14); **Invited speaker**
- Microphase separation in asymmetric coil-coil and coil-amphiphilic comb block copolymers in strong segregation limit, **M. Asad Ayoubi**, K. Zhu, B. Nyström, U. Olsson, K. Almdal, A. Khokhlov, & L. Piculell, *European Polymer Congress 2011*, Granada, Spain, 26 June-1 July, **2011** [Conference Proceedings (ISBN: 978-84-694-3124-5), pg#301]

(IX) Teaching experience & instrument responsibility

- Lab assistant (2008-2012) for
 - Graduate course “**Surface and Colloid Chemistry – Advanced Course**” (small-angle X-ray scattering and rheology labs)
 - Graduate course “**Chemistry: Scattering Methods**” (small-angle X-ray scattering lab)
- Responsible for an in-house Kratky camera-equipped SAXS instrument (2008-2010)

(X) Graduate theses information

- Ph.D. thesis title: Self-assembly in melts of block copolymer-based systems featuring supramolecular interactions (ISBN: 978-91-7422-310-1)
- M.S. thesis title: Visualization of conformational transitions of DNA molecules in the presence of polyelectrolytes