

Emmanouil Glynos**PUBLICATIONS**

EG has published **48 articles**, **7 as corresponding author**, in international referred journal, **6 articles in peer reviewed conference proceeding**, and **1 book chapter**. His work has been **cited 1659** with an **h-index = 24** and **i10-index = 39**, as given by Google Scholar on 8 December 2021.

1. PUBLICATIONS IN PEER-REVIEWED JOURNALS

* Indicates Corresponding Author

48. D. Skoula, G. Mangiapa, D. Parisi, M. Kasimatis, E. Glynos, E. Stratikos, D. Vlassopoulos, H. Frielinghaus, H. Iatrou
"Tunable Hydrogels with Improved Viscoelastic Properties from Hybrid Polypeptides"
Macromolecules **2021**, <https://doi.org/10.1021/acs.macromol.1c01596>
47. G. Zardalidis, D. Chatzogiannakis, E. Glynos, F. Farmakis
"Electrochemical Impedance Spectroscopy Study of Surface Film Formation on Lithium Anodes and the Role of Chain Termination on Poly (Ethylene Oxide) Electrolytes"
ACS Applied Energy Materials **2021**, 4, 6815-6823
46. P. Bacova, E. Glynos, S. H. Anastasiadis, V. Harmandaris
"How Does the Number of Arms Affect the Properties of Mikto-arm Stars in a Selective Oligomeric Matrix? Insights from Atomistic Simulations"
ACS Omega **2021**, 6, 1138-1148
45. B. Frieberg, E. Glynos, G. Sakellariou, M. Tyagi, P. F. Green
"Effect of Molecular Stiffness on the Physical Aging of Polymers"
Macromolecules **2020**, 53, 7684
44. C. Pantazidis, S. Andreou, E. Glynos, G. Sakellariou
"Synthesis of a Well-defined Polyelectrolyte by Controlled/"Living" Nitroxide-mediated Radical Polymerization. A kinetic study"
European Polymer Journal **2020**, 132, 109815
43. P. Bacova, E. Glynos, S. H. Anastasiadis, V. Harmandaris
"Spatio-temporal Heterogeneities in Nanosegregated Single-molecule Polymer Particles"
Soft Matter **2020**, 16, 4584-4590
42. E. Glynos*, C. Pantazidis, G. Sakellariou
"Designing All-Polymer Nanostructured Solid Electrolytes: Advances and Prospects"
ACS Omega **2020**, 5, 2531-2540
41. P.A. Klonos, N. Patelis, E. Glynos, G. Sakellariou, A. Kyritsis
"Molecular Dynamics in Polystyrene Single-Chain Nanoparticles"
Macromolecules **2019**, 52, 9334-9340

40. S. Chandran, J. Baschnagel, D. Cangialosi, K. Fukao, E. Glynos, L. M. C. Janssen, M. Muller, M. Muthukumar, U. Steiner, J. Xu, S. Napolitano, G. Reiter
"Processing Pathways Decide Polymer Properties at the Molecular Level"
Macromolecules **2019**, 52, 7146-7156¹
39. P. Bacova, E. Glynos*, S. H. Anastasiadis, V. Harmandaris
"Nanostructuring Single-Molecule Polymeric Nanoparticle via Macromolecular Architecture".
ACS Nano **2019**, 13, 2439-2449
38. P. Bacova, R. Foskinis, E. Glynos, A. N. Rissanou, S. H. Anastasiadis, V. Harmandaris
"Effect of Macromolecular Architecture on the Self-Assembly Behavior of Copolymers in a Selective Polymer Host".
Soft Matter **2018**, 14, 9562-9570
37. E. A. S Evangelopoulos, A. N. Rissanou, E. Glynos, I. A. Bitsanis, S. H. Anastasiadis, V. Koutsos
"Wetting Behavior of Polymer Droplets: Effects of Droplet Size and Chain Length"
Macromolecules **2018**, 51, 2805-2816
36. E. Glynos*, P. Petropoulou, E. Mygiakis, A. D. Nega, L. Papoutsakis, W. Pan, E. P. Giannelis, G. Sakellariou, S. H. Anastasiadis
"Leveraging Molecular Architecture To Design New, All-Polymer Solid Electrolytes with Simultaneous Enhancement in Modulus and Ionic Conductivity"
Macromolecules **2018**, 51, 2542-2550²
35. E. Glynos*, K.J. Johnson, B. Frieberg, A. Chremos, S. Narayanan, G. Sakellariou, P.F. Green
"Free Surface Relaxations of Star-shaped Polymers Films"
Physical Review Letters **2017**, 119, 227801
34. L. C. Hsiao, S. Jamali, E. Glynos, P. Green, R. G. Larson, M. J. Solomon. A
"Rheological State Diagram for Rough Colloids in Shear Flow"
Physical Review Letters **2017**, 119, 158001
33. K.J. Johnson, E. Glynos, B. Frieberg, A. Chremos, S. Narayanan, G. Sakellariou, P.F. Green
"Confinement Effects on Host Chain Dynamics in Polymer Nanocomposite Thin Films"
Macromolecules **2017**, 50, 7241-7248

¹ The article was selected to be featured in ACS Editors' Choice and appeared in the Front Cover

² The article was included in a Virtual Issue on "Designing Polymers for Use in Electrochemical Energy Storage", which presented articles published in *Macromolecules* and *ACS Macro Letters* focusing on the chemistry of macromolecules needed to advance electrochemical energy storage devices for widespread electrification of transportation and storage on the grid <http://pubs.acs.org/page/vi/electrochem-energy-storage-devices>

32. E. Glynos*, L. Papoutsakis, W. Pan, A. D. Nega, E. Mygiakis, E. P. Giannelis, G. Sakellariou, S. H. Anastasiadis
"Nanostructured Polymer Particles as Additives for High Conductivity, High Modulus Solid Polymer Electrolytes"
Macromolecules **2017**, 50, 4699-4706
31. B. Frieberg, E. Glynos, G. Sakellariou, P.F. Green
"Glassy Dynamics of Polymers with Star-Shaped Topologies: Roles of Molecular Functionality, Arm Length, and Film Thickness"
Macromolecules **2017**, 50, 3719-3725
30. S. Napolitano, E. Glynos, N. Tito
"Glass Transition of Polymers in Bulk, Confined Geometries, and Near Interfaces"
Reports on Progress in Physics **2017**, 80, 036602
29. A.D. Nega, E.K. Pefkianakis, G.C. Vougioukalakis, E. Glynos*, G. Sakellariou
"Synthesis of P3HT-b-PS Donor-Acceptor Diblock Copolymer Carrying Pendant Fullerenes at Precise Positions Along the PS block"
European Polymer Journal **2016**, 83, 148-160
28. K.J. Johnson, E. Glynos, G. Sakellariou, P.F. Green
"Dynamics of Star-Shaped Polystyrene Molecules: From Arm Retraction to Cooperativity"
Macromolecules **2016**, 49, 5669-5676
27. P. Chung, E. Glynos, P.F. Green
"Elastic Mechanical Response of Thin Supported Star-Shaped Polymer Films"
ACS Macro Letters **2016**, 5, 439-443
26. M.J. McGuffie, J. Hong, J.H. Bahng, E. Glynos, P.F. Green, N.A. Kotov, J.G. Younger, J.S. VanEpps
"Zinc Oxide Nanoparticle Suspensions and Layer-by-Layer Coatings Inhibit Staphylococcal Growth"
Nanomedicine **2016**, 12, 33-42
25. P.F. Green, E. Glynos, B. Frieberg
"Polymer Films of Nanoscale Thickness: Linear Chain and Star-shaped Macromolecular Architectures"
MRS Communication **2015**, 5, 423-434
24. E. Glynos, A. Chremos, B. Frieberg, G. Sakellariou, P.F. Green
"Vitrification of Thin Polymer Films: From Linear Chain to Soft Colloid-like Behavior"
Macromolecules **2015**, 48, 2305-2312
23. A. Chremos, E. Glynos, P.F. Green
"Structure and Dynamical Intra-molecular Heterogeneity of Star Polymer Melts Above Glass Transition Temperature"
The Journal of Chemical Physics **2015**, 142, 044901

22. P. Chung, E. Glynos, P.F. Green
"The Elastic Mechanical Response of Supported Thin Polymer Films"
Langmuir **2014**, 30, 15200-15205
21. E. Glynos, A. Chremos, B. Frieberg, G. Sakellariou, P.F. Green
"Wetting of Macromolecules: From Linear Chain to Soft Colloid-like Behavior"
Macromolecules **2014**, 47, 1137-1143
20. H. Yang, E. Glynos, B. Huang, P.F. Green
"Out-of-plane Carrier Transport in Conjugated Polymer Thin Films: Role of Morphology"
The Journal of Physical Chemistry C **2013**, 117, 9590-9597
19. M. Kalloudis, E. Glynos*, S. Pispas, J. Walker, V. Koutsos
"Thin films of Poly(isoprene-*b*-ethylene oxide) Diblock Copolymers on Mica: An Atomic Force Microscopy Study"
Langmuir **2013**, 29, 2339-2349
18. J. Amono, E. Glynos, X.C. Chen, P.F. Green
"An Alternative Processing Strategy for Organic Photovoltaic Devices Using a Supercritical Fluid"
The Journal of Physical Chemistry C **2012**, 116, 20708-20716
17. B. Huang, E. Glynos, B. Frieberg, P.F. Green
"Effect of Thickness-Dependent Microstructure on Out-of-plane Hole Mobility in Poly(3-hexylthiophene) Films"
ACS Applied Materials and Interfaces **2012**, 4, 5204-5210
16. B. Frieberg, E. Glynos, P.F. Green
"Structural Relaxations of Thin Polymer Films"
Physical Review Letters **2012**, 108, 268304
15. B. Frieberg, E. Glynos, G. Sakellariou, P.F. Green
"Physical Aging of Star-Shaped Macromolecules"
ACS Macro Letters **2012**, 1, 636-640
14. E. Buchner Santos, J.K. Morris, E. Glynos, V. Koutsos, V. Sboros
"Nanomechanical Properties of Phospholipid Microbubbles"
Langmuir **2012**, 28, 5753-5760
13. A.E.A.S. Evangelopoulos, E. Glynos, F. Madani-Grasset, V. Koutsos
"Elastic Modulus of a Polymer Nanodroplet: Theory and Experiments"
Langmuir **2012**, 28, 4754-4767
12. E. Glynos, B. Frieberg, P.F. Green
"Wetting of a Multi-Arm Star-Shaped Molecule"
Physical Review Letters **2011**, 107, 118303
11. E. Glynos, B. Frieberg, H. Oh, M. Liu, D.W. Gidley, P.F. Green
"Role of Molecular Architecture on the Vitrification of Polymer Thin Films"
Physical Review Letters **2011**, 106, 128301

10. V. Sboros, E. Glynos, J. Ross, C.M. Moran, S.D. Pye, M. Butler, S.B. Brown, W.N. McDicken, V. Koutsos
"Probing Microbubble Targeting With Atomic Force Microscopy"
Colloids and Surfaces B: Biointerfaces **2010**, 80, 12-17
9. A. Chremos, P.J. Camp, E. Glynos, V. Koutsos
"Adsorption of Star Polymers: Computer Simulations"
Soft Matter **2010**, 6, 1483-1493
8. E. Glynos, V. Sboros, V. Koutsos
"Polymeric Thin Shells: Measurement of Elastic Properties at the Nanometer Scale Using Atomic Force Microscopy"
Materials Science and Engineering B **2009**, 165, 231-234
7. E. Glynos, V. Koutsos, W.N. McDicken, C.M. Moran, S.D. Pye, J. Ross, V. Sboros
"Nanomechanics of Biocompatible Hollow Thin-Shell Polymer Microspheres"
Langmuir **2009**, 25, 7514-7522
6. A. Chremos, E. Glynos, V. Koutsos, P.J. Camp
"Adsorption and Self-assembly of Linear Polymers on Surfaces: A Computer Simulation Study"
Soft Matter **2009**, 5, 637-645
5. F. Madani-Grasset, N.T. Nhan, E. Glynos, V. Koutsos
"Imaging Thin and Ultrathin Films by Scanning White Light Interferometry"
Materials Science and Engineering B **2008**, 152, 125-131
4. E. Glynos, S. Pispas, V. Koutsos
"Amphiphilic Diblock Copolymers on Mica: Formation of Flat Polymer Nanoislands and Evolution to Protruding Surface Micelles"
Macromolecules **2008**, 41, 4313-4320
3. V. Sboros, E. Glynos, S.D. Pye, C.M. Moran, M. Butler, J. Ross, R. Short, W.N. McDicken, V. Koutsos
"Nanomechanical Probing of Microbubbles Using the Atomic Force Microscopy"
Ultrasonics **2007**, 46, 349-354
2. E. Glynos, A. Chremos, G. Petekidis, P. Camp, V. Koutsos
"Polymer-like to Soft Colloid-like Behavior of Regular Star Polymers Adsorbed on Surfaces"
Macromolecules **2007**, 40, 6947-6958
1. V. Sboros, E. Glynos, S.D. Pye, C.M. Moran, M. Butler, J. Ross, R. Short, W.N. McDicken, V. Koutsos
"Nanointerrogation of Ultrasonic Contrast Agent Microbubbles Using Atomic Force Microscopy"
Ultrasound in Medicine and Biology **2006**, 32, 579-585

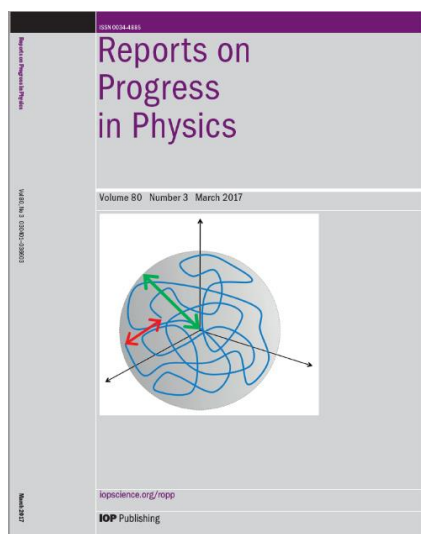
2 CONFERENCE PROCEEDINGS (Included in the Citation Index)

1. A. Lytra, N. Pelekasis, V. Sboros, E. Glynos, V. Koutsos"
"Static Response of Coated Microbubbles: Modeling Simulations and Parameter Estimation"
Procedia IUTAM **2015**, 16, 123-133
3. V. Sboros, E. Glynos, N. Pelekasis, V. Koutsos.
"Nano-interrogation of a Lipid Shelled Microbubble"
IEEE Ultrasonics Symposium Proceedings **2008**, Vols 1-4, pp. 997-998
2. V. Sboros, E. Glynos, S. D. Pye, C. M. Moran, M. Butler, J. A. Ross, W. N. McDicken, V. Koutsos
"Interrogation of the Targeting Mechanisms of Ultrasound Contrast Agent Microbubbles Using Atomic Force Microscopy"
IEEE Ultrasonics Symposium Proceedings **2007**, Vols 1-6, pp. 965-968
1. V. Sboros, E. Glynos, S. D. Pye, C. M. Moran, M. Butler, J. A. Ross, W. N. McDicken, V. Koutsos
"Interrogation of the Targeting Mechanisms of Ultrasound Contrast Agent Microbubbles Using Atomic Force Microscopy"
IEEE Ultrasonics Symposium Proceedings **2007**, Vols 1-6, pp. 965-968
1. V. Sboros, E. Glynos, M. Butler, C. M. Moran, J. Ross, S. D. Pye, W. N. McDicken, V. Koutsos
"Microbubble Nano-interrogation Using the Atomic Force Microscope"
IEEE Ultrasonics Symposium Proceedings 2005, Vols 1-4, pp. 985-987, **2005**

3 BOOK CHAPTERS

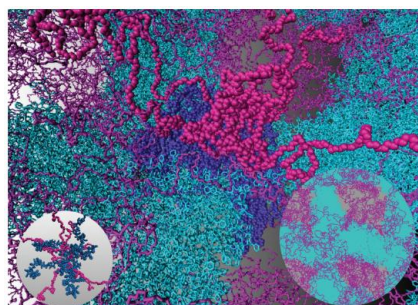
1. V. Koutsos, J. Walker, E. Glynos.
"Self-assembly of Nanoparticles on Surfaces: Towards Surface Nanopatterning"
In *Nanotechnologies: Principles and Application*, Chapter 10, Springer, 21 pages, 2011

4 JOURNAL COVERS

**1. Front Cover**

Glass Transition of Polymer in Bulk, Confined Geometries, and Near Interfaces
Report on Progress in Physics **2017**, 80, 036602
 DOI: 10.1039/d0sm00079e

Despite almost 100 years of research on the (liquid/)glass transition, it is not yet clear which molecular mechanisms are responsible for the unique slow-down in molecular dynamics. Napolitano, Glynos, and Tito review vitrification and provide an extensive reading list on the subject while providing a quick perspective on future work.

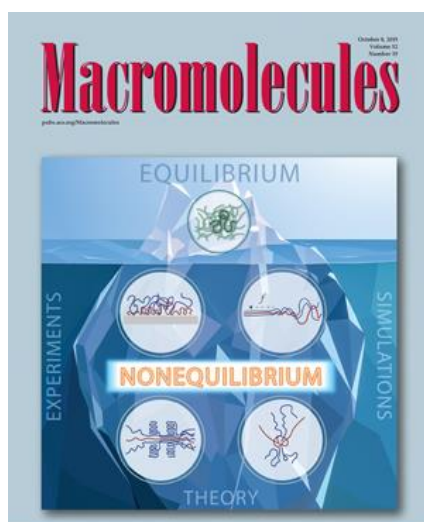
**2. Back Cover**

Effect of Macromolecular Architecture on the Self-assembly Behavior of Copolymer in a Selective Solvent (*Soft Matter* 2018, 14, 9562-9570)
 DOI: 10.1039/c8sm01421c

Amphiphilic mikto-arm stars self-assemble into highly ordered bicontinuous (percolated) structures in the presence of a selective polymer host. Atomistic molecular dynamics simulation data carried out by Bacova et al. show that the structural and dynamical properties in such blends may be tuned by altering the macromolecular architecture of the copolymer and/or by adjusting the temperature.



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**3. Front Cover**

Processing Pathways Decide Polymer Properties at the Molecular Level (*Macromolecules* 2019, 52, 7146-7156)
 DOI: 10.1021/acs.macromol.9b01195

A huge potential is waiting to be discovered in the processing-induced nonequilibrium behavior of polymers. With equilibrium concepts we may have only seen the tip of the iceberg, as captured by the isotropic and homogeneous chain conformation of a test chain. In contrast, typical processing conditions induce a rich variety of nonequilibrium conformations, which might yield a remarkable versatility and the adaptability of the properties of polymers.



Highlighting simulation research from the collaborative work of IACM and IESL institutes at FORTH-Greece.

Spatio-temporal heterogeneities in nanosegregated single-molecule polymeric nanoparticles

Mikto-arm star polymers combining incompatible dynamically asymmetric polymers in one molecule. We use atomistic molecular dynamics simulations to examine the spatio-temporal heterogeneities in mikto-arm stars. Due to the intramolecular nanosegregation, regions with mutually correlated dynamics are formed and a clear transition from "immiscible-like" to "miscible-like" behavior is observed when approaching the star core.



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4. Back Cover

Spatio-temporal Heterogeneities in Nanosegregated Single-molecule Polymer Nanoparticles

Soft Matter **2020**, 16, 4584-4590

DOI: 10.1039/d0sm00079e

Mikto-arm star polymers combining incompatible dynamically asymmetric polymers in one molecule. We use atomistic molecular dynamics simulations to examine the spatio-temporal heterogeneities in mikto-arm stars. Due to the intramolecular nanosegregation, regions with mutually correlated dynamics are formed and a clear transition from "immiscible-like" to "miscible-like" behavior is observed when approaching the star core