

CURRICULUM VITAE

Hsin-Lung Chen (陳信龍)
Tsing Hua Chair Professor
Department of Chemical Engineering
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Education

1994 Ph.D. in Polymer Science and Engineering, University of Massachusetts Amherst, U.S.A.

Thesis Advisor: Professor Roger S. Porter

1990 M.S. in Polymer Science and Engineering, University of Massachusetts at Amherst, U.S.A..

1988 Diploma in Chemical Engineering, Ming-Chi Institute of Technology, Taipei, Taiwan

Work Experience

2008-present Tsing Hua Chair Professor, National Tsing Hua University, Taiwan
2001-present Professor, Department of Chemical Engineering, National Tsing Hua University
2016/8-present Associate Dean, College of Engineering, National Tsing Hua University
2014/2~2014/9 Associate Vice President for Research and Development, National Tsing Hua University
2010-2013 Chairman, Department of Chemical Engineering, National Tsing Hua University
2006-2008 Distinguished Professor, National Tsing Hua University
2001/6-2001/9 Visiting Professor, Department of Polymer Chemistry, Kyoto University, Japan.
1997-2001 Associate Professor, Department of Chemical Engineering, National Tsing Hua University, Taiwan.
1995-1997 Associate Professor, Department of Chemical Engineering, Chang Gung University, Taiwan

Other Academic Appointments

2016-present Senior Editor, *Journal of Polymer Research*, Springer Nature
1998-2016 Associate Editor, *Journal of Polymer Research*, Springer Nature
2008-present Editorial board member, *The Open Macromolecules Journal*
2011-present Editorial board member, *ISRN Polymer Science*
2006-present Council Member, The Polymer Society, Taipei
2015-present Council Member, Taiwan Neutron Science Society
2016-present Member of the AONSA (Asia Oceania Neutron Scattering Association) Young Research Fellowship Selection Committee
2016-present Member of the Proposal Evaluation Committee, National Synchrotron Radiation Research Center, Taiwan
2015-2016 Member of the Neutron User Executive Committee (UEC), National Synchrotron Radiation Research Center, Taiwan

- 2012-2015 Member of the Neutron Proposal Evaluation Committee, National Synchrotron Radiation Research Center, Taiwan
- 2010-2014 Council Member, Taiwan Institute of Chemical Engineers
- 2013-2014 Member of the User Executive Committee (UEC), National Synchrotron Radiation Research Center, Taiwan
- 2006-2008 Coordinator, Polymer Science and Engineering Program, Ministry of Science and Technology, Taiwan
- 2006-2008 Coordinator, Interdisciplinary Projects on Flexible Electronics, Ministry of Science and Technology, Taiwan
- 2007 Principal Guest Editor of the *Journal of Display Technology* for a special issue on Flexible Electronics and Displays
- 2006-2008 Member of the User Executive Committee (UEC), National Synchrotron Radiation Research Center, Taiwan
- 2004-2006 Member of the Proposal Evaluation Committee (PEC), National Synchrotron Radiation Research Center, Taiwan

Academic Honors

- 1998 Young Faculty Research Award, National Tsing Hua University
- 1999 Outstanding Teaching Award, National Tsing Hua University
- 2000 Best Paper Award, The Polymer Society, Taipei
- 2001 Outstanding Research Award, Ministry of Science and Technology
- 2002 Ta-Yu Wu Memorial Award, Ministry of Science and Technology
- 2002 Outstanding Teaching Award, National Tsing Hua University
- 2003 Outstanding Research Award, Ministry of Science and Technology
- 2004 Best Paper Award, The Polymer Society, Taipei
- 2006 Appointed as the Tsing Hua Distinguished Professor
- 2008 Outstanding Teaching Award, National Tsing Hua University
- 2008 Appointed as the Tsing Hua Chair Professor
- 2010 Outstanding Academic Polymer Research Award, The Society of Polymer, Taipei
- 2008 Recipient of the grant of "Outstanding Scholar Project" from the Ministry of Science and Technology, Taiwan
- 2011 Outstanding Research Award, Ministry of Science and Technology
- 2011 Distinguished Alumnus, Ming-Chi University of Technology
- 2012 Ho Chin Tui Award (侯金堆傑出榮譽獎), Ho Chin Tui Foundation
- 2013 Research Fellow (特約研究員), Ministry of Science and Technology, Taiwan
- 2015 Academic Award, Ministry of Education

Organizer of International Meetings

- 2017-2019 Organizer, Federation of Asian Polymer Societies 2019 Polymer Congress (FAPS 2019)
- 2017 Session Organizer, Polymer blends and alloys, 34th International Conference of Polymer Processing Society (PPS-34)
- 2017 Co-Organizer, Japan-Taiwan Bilateral Polymer Symposium 2017
- 2016 Organizer, Taiwan-Japan Bilateral Polymer Symposium 2016
- 2016 Co-Organizer, The 7th Japan-Taiwan Joint Meeting on X-ray and Neutron Scattering
- 2015 Co-organizer (with Kazuo Sakurai and Ramanathan Nagarajan), "Self-assembly of Biofunctional Systems" symposium, PACIFICHEM (2015)

- 2013 Co-Chair, Technical Program Committee, The 13th Pacific Polymer Conference (PPC13)
- 2013 Organizer, The 6th Taiwan-Japan Joint Meeting on X-ray and Neutron Scattering
- 2012 Organizer, The 5th Taiwan-Japan Joint Meeting on X-ray and Neutron Scattering
- 2010 Organizer, Polymer Engineering and Materials Processing Session, 13th Asia Pacific Confederation of Chemical Engineering Congress (APCChE2010).
- 2010 Scientific Committee Member, The 7th Asian-Australian Conference on Composite Materials
- 2008 Principal Guest Editor of the Journal of Display Technology for a special issue on Flexible Electronics and Displays
- 2008 Organizing Committee Member, IUPAC 42nd World Polymer Congress (Macro 2008)
- 2007 Chair of the Technical Program Committee, International Symposium on Flexible Electronics and Displays
- 2007 Organizer, Taiwan-Russia Joint Symposium on Soft Materials

Professional Society Memberships

The American Chemical Society
 The American Physical Society
 The Polymer Society, Taipei
 Taiwan Institute of Chemical Engineers
 Taiwan Neutron Science Society

Specialty

polymer physics, small angle X-ray and neutron scattering, nanostructure of soft matter

Current Research Interests

1. *Self-assembled nanostructures and phase transitions of block copolymers.*

Current focuses include (a) ordered bicontinuous network structures and their order-order transitions of the diblock copolymers composed of a stereoregular block; (b) thermodynamic state weakly interacting diblock copolymers; (c) closely-packed sphere phases of block copolymers

2. *Self-Assembly of the supramolecular complexes of dendrimer*

Current focuses include (a) novel nanostructures derived from the complexes of dendrimer with amphiphilic molecules; (b) new nanostructures associated with different degrees of DNA bending upon interacting with dendrimers of different generations.

3. *Nucleosome and chromatin structure elucidated by small angle X-ray scattering*

Current focus is the elucidation of the role of linker DNA in mediating the nucleosome interaction and the higher level folding chromatin fiber.

4. *Characterizations of the hierarchical structures of soft materials by small angle scattering*

Resolving the characteristic structures at various length scales for the novel materials developed by our collaborators to establish the structure-property or structure-function relationships of these materials for the designated applications. The main material systems are polymer/nanoparticle hybrids and biomaterials for deliveries of protein drugs and genes.

Publications

*181 papers published in peer-reviewed journals

*h-index: 43 (*cf.* Google Scholar)

List of Publication

Hsin-Lung Chen

Papers published in peer-reviewed journals

1. **Chen, H. L.**; Porter, R. S.*, Phase and Crystallization Behavior of Solution-Blended Poly(Ether Ether Ketone) and Poly(Ether Imide). *Polymer Engineering and Science* **1992**, 32, 1870-1875.
2. **Chen, H. L.**; Porter, R. S.*, Observation of 2-Stage Crystallization of Poly(Ether Ether Ketone) by Thermal-Mechanical Analysis. *Polymer* **1993**, 34, 4576-4578.
3. **Chen, H. L.**; Porter, R. S.*, Melting Behavior of Poly(Ether Ether Ketone) in Its Blends with Poly(Ether Imide). *Journal of Polymer Science Part B-Polymer Physics* **1993**, 31, 1845-1850.
4. **Chen, H. L.**; Porter, R. S.*, Two-Stage Crystallization of Poly(Ether Ether Ketone)/Poly(Ether imide) Blends Studied by Thermal-Mechanical Analysis. *Thermochimica Acta* **1994**, 243, 109-113.
5. **Chen, H. L.**; Porter, R. S.*, Composite of Polyethylene and Kenaf, a Natural Cellulose Fiber. *Journal of Applied Polymer Science* **1994**, 54, 1781-1783.
6. **Chen, H. L.***, Miscibility and Crystallization Behavior of Poly(Ethylene Terephthalate)/Poly(Ether Imide) Blends. *Macromolecules* **1995**, 28, 2845-2851.
7. **Chen, H. L.***; Hwang, J. C., Some Comments on the Degree of Crystallinity Defined by the Enthalpy of Melting. *Polymer* **1995**, 36, 4355-4357.
8. **Chen, H. L.***; Porter, R. S., Uniaxial Draw of Poly(Ether Ether Ketone)/Poly(Ether Imide) Blends by Solid-State Coextrusion. *Macromolecules* **1995**, 28, 3918-3924.
9. **Chen, H. L.***; Hwang, J. C.; Chen, C. C., Multiple Melting and Crystal Annealing of Poly(Ethylene Terephthalate) in Its Blends with Poly(Ether Imide). *Polymer* **1996**, 37, 5461-5467.
10. **Chen, H. L.***; Liaw, D. J.; Tsai, J. S.; Shyu, J. S.; Yang, J. M., Miscible Blends of Polystyrene and Poly(Epsilon-Caprolactone) with Phenylacetylene Carbon Monoxide Alternating Copolymer. *Polymer Journal* **1996**, 28, 976-979.
11. **Chen, H.-L.***; You, J.-W.; Porter, R., Intermolecular Interaction and Conformation in Poly(Ether Ether Ketone)/Poly(Ether Imide) Blends — an Infrared Spectroscopic Investigation. *J Polym Res* **1996**, 3, 151-158.
12. Yang, J. M.; You, J. W.; **Chen, H. L.**; Shih, C. H., Calorimetric Characterization of the Formation of Acrylic Type Bone Cements. *Journal of Biomedical Materials Research* **1996**, 33, 83-88.
13. **Chen, H. L.***; Hwang, J. C.; Chen, C. C.; Wang, R. C.; Fang, D. M.; Tsai, M. J., Phase Behaviour of Amorphous and Semicrystalline Blends of Poly(Butylene Terephthalate) and Poly(Ether Imide). *Polymer* **1997**, 38, 2747-2752.
14. **Chen, H. L.***; Li, L. J.; OuYang, W. C.; Hwang, J. C.; Wong, W. Y., Spherulitic Crystallization Behavior of Poly(Epsilon-Caprolactone) with a Wide Range of Molecular Weight. *Macromolecules* **1997**, 30, 1718-1722.
15. Hwang, J. C.; Chen, C. C.; **Chen, H. L.***; Yang, W. C. O., Analysis of Two-Stage Crystallization Kinetics for Poly(Ethylene Terephthalate) Poly(Ether

- Imide) Blends. *Polymer* **1997**, 38, 4097-4101.
16. OuYang, W. C.; **Chen, H. L.***, Simple Methods for Assessing the Conformational Sensitivity of Infrared Bands by Dichroism. *Macromolecular Rapid Communications* **1997**, 18, 903-909.
 17. Ou-Yang, W. C.; Li, L. J.; **Chen, H. L.***; Hwang, J. C., Bulk Crystallization Behavior of Poly(Epsilon-Caprolactone) with a Wide Range of Molecular Weight. *Polymer Journal* **1997**, 29, 889-893.
 18. Yang, J. M.; **Chen, H. L.***; You, J. W.; Hwang, J. C., Miscibility and Crystallization of Poly(L-Lactide) Poly(Ethylene Glycol) and Poly(L-Lactide)/Poly(Epsilon-Caprolactone) Blends. *Polymer Journal* **1997**, 29, 657-662.
 19. Yang, J. M.*; Shyu, J. S.; **Chen, H. L.**, Polymerization of Acrylic Bone Cement Investigated by Differential Scanning Calorimetry: Effects of Heating Rate and T_{cp} Content. *Polymer Engineering and Science* **1997**, 37, 1182-1187.
 20. **Chen, H. L.***; Hsiao, M. S., Morphological Structure Induced by Combined Crystallization and Liquid-Liquid Demixing in Poly(Ethylene Terephthalate) Poly(Ether Imide) Blends. *Macromolecules* **1998**, 31, 6579-6584.
 21. **Chen, H. L.***; Hwang, J. C.; Wang, R. C., A New Binary System Exhibiting Simultaneous Crystallization and Spinodal Decomposition: Poly(Ethylene-2,6-Naphthalenedicarboxylate) Poly(Ether Imide) Blend. *Polymer* **1998**, 39, 6067-6072.
 22. **Chen, H. L.***; Hwang, J. C.; Yang, J. M.; Wang, R. C., Simultaneous Liquid-Liquid Demixing and Crystallization and Its Effect on the Spherulite Growth in Poly(Ethylene Terephthalate) Poly(Ether Imide) Blends. *Polymer* **1998**, 39, 6983-6989.
 23. **Chen, H. L.***; Li, L. J.; Lin, T. L., Formation of Segregation Morphology in Crystalline/Amorphous Polymer Blends: Molecular Weight Effect. *Macromolecules* **1998**, 31, 2255-2264.
 24. **Chen, H. L.***; Liaw, D. J.; Liaw, B. Y.; Shih, C. L.; Tsai, J. S., Compatibility and Crystallization Studies on Poly(Phenyl Acetylene) Polycaprolactone Blend. *Polymer Journal* **1998**, 30, 874-878.
 25. **Chen, H. L.***; Wang, S. F.; Lin, T. L., Morphological Structure of Crystalline Polymer Blend Involving Hydrogen Bonding: Polycaprolactone/Poly(4-Vinylphenol) System. *Macromolecules* **1998**, 31, 8924-8930.
 26. **Chen, H. L.***; Wu, J. C.; Lin, T. L., Solid-State Complexes of Poly(N-Vinyl-Pyrrolidone) and Dodecyl Benzene Sulfonic Acid: Self-Assembled Structure and Thermal Properties. *Journal of Polymer Research-Taiwan* **1998**, 5, 199-204.
 27. Yang, J. M.; Shyu, J. S.; **Chen, H. L.***, Additive Modification of the Polymerization and Properties of an Acrylic Bone Cement. *Polymer Engineering and Science* **1998**, 38, 530-533.
 28. **Chen, H. L.***; Chang, M. N., Supramolecular Structure of the Solid-State Complexes of Polyacrylamide and Dodecylbenzenesulfonic Acid. *Journal of Polymer Research-Taiwan* **1999**, 6, 231-236.
 29. **Chen, H. L.***; Hsiao, M. S., Self-Assembled Mesomorphic Complexes of Branched Poly(Ethylenimine) and Dodecylbenzenesulfonic Acid. *Macromolecules* **1999**, 32, 2967-2973.

30. **Chen, H. L.***; Porter, R. S., Spherulitic Growth Kinetics in Miscible Blends of Poly(Ether Ether Ketone) and Poly(Ether Imide). *Journal of Polymer Research-Taiwan* **1999**, *6*, 21-26.
31. Chiu, H. J.; **Chen, H. L.***; Lin, T. L.; Lin, J. S., Phase Structure of Poly(3-Hydroxy Butyrate)/Poly(Vinyl Acetate) Blends Probed by Small-Angle X-Ray Scattering. *Macromolecules* **1999**, *32*, 4969-4974.
32. **Chen, H. L.***; Liu, H. H.; Lin, J. S., Microstructure of Semicrystalline Poly(L-Lactide)/Poly(4-Vinylphenol) Blends Evaluated from Sxrs Absolute Intensity Measurement. *Macromolecules* **2000**, *33*, 4856-4860.
33. **Chen, H. L.***; Wang, S. F., Crystallization Induced Microstructure of Polymer Blends Consisting of Two Crystalline Constituents. *Polymer* **2000**, *41*, 5157-5164.
34. Hsiao, M. S.; **Chen, H. L.***; Liaw, D. J., A Mesomorphic Blend Based on the Solid-State Complexes of Polymers with Surfactants. *Macromolecules* **2000**, *33*, 221-224.
35. **Chen, H. L.***; Hsiao, S. C.; Lin, T. L.; Yamauchi, K.; Hasegawa, H.; Hashimoto, T., Microdomain-Tailored Crystallization Kinetics of Block Copolymers. *Macromolecules* **2001**, *34*, 671-674.
36. **Chen, H. L.***; Wu, J. C.; Lin, T. L.; Lin, J. S., Crystallization Kinetics in Microphase-Separated Poly(Ethylene Oxide)-Block-Poly(1,4-Butadiene). *Macromolecules* **2001**, *34*, 6936-6944.
37. Chiu, H. J.; **Chen, H. L.***; Lin, J. S., Crystallization Induced Microstructure of Crystalline/Crystalline Poly(Vinylidene fluoride)/Poly(3-Hydroxybutyrate) Blends Probed by Small Angle X-Ray Scattering. *Polymer* **2001**, *42*, 5749-5754.
38. **Chen, H. L.***; Ko, C. C.; Lin, T. L., Self-Assembly in the Bulk Complexes of Poly(Ethylene Oxide) with Amphiphilic Dodecylbenzenesulfonic Acid. *Langmuir* **2002**, *18*, 5619-5623.
39. **Chen, H. L.***; Ko, C. C.; Ou-Yang, W. C.; Lin, T. L., A Supramolecular Star-Like Polymer. *Journal of Polymer Research-Taiwan* **2002**, *9*, 221-226.
40. **Chen, H. L.***; Li, H. C.; Huang, Y. Y.; Chiu, F. C., Crystallization-Induced Deformation of Spherical Microdomains in Block Copolymer Blends Consisting of a Soft Amorphous Phase. *Macromolecules* **2002**, *35*, 2417-2422.
41. **Chen, H. L.***; Lin, S. Y.; Huang, Y. Y.; Chiu, F. C.; Liou, W.; Lin, J. S., Crystallization in the Vesicle Walls Templated by Dry-Brush Block Copolymer/Homopolymer Blend. *Macromolecules* **2002**, *35*, 9434-9440.
42. **Chen, H. L.***; Wu, S. F.; Lin, T. L.; Wu, G. M., Diluent Segregation in Crystalline/Amorphous Poly(Vinylidene Fluoride)/Poly(Vinyl Acetate) Blends. Segregation Distance Dominated by the Crystal Growth Kinetics. *Polymer Journal* **2002**, *34*, 356-362.
43. Lee, W.; **Chen, H. L.***; Lin, T. L., Correlation between Crystallization Kinetics and Microdomain Morphology in Block Copolymer Blends Exhibiting Confined Crystallization. *Journal of Polymer Science Part B-Polymer Physics* **2002**, *40*, 519-529.
44. Shieh, Y. T.; Lin, Y. G.; **Chen, H. L.***, Effect of Supercritical Co₂ on Phase Structure of PEO/PVAc Blends Evaluated from Sxrs Absolute Intensity Measurement. *Polymer* **2002**, *43*, 3691-3698.
45. Huang, Y. Y.; **Chen, H. L.***; Hashimoto, T., Face-Centered Cubic Lattice of Spherical Micelles in Block Copolymer/Homopolymer Blends. *Macromolecules*

- 2003, 36, 764-770.
46. Huang, Y. Y.; **Chen, H. L.***; Li, H. C.; Lin, T. L.; Lin, J. S., Coalescence of Crystalline Microdomains Driven by Postannealing in a Block Copolymer Blend. *Macromolecules* **2003**, 36, 282-285.
 47. Lu, S.-Y.; Wu, M.-L.; **Chen, H.-L.***, Polymer Nanocomposite Containing Cds–Zns Core–Shell Particles: Optical Properties and Morphology. *Journal of Applied Physics* **2003**, 93, 5789-5793.
 48. Chen, S. H.; Su, A. C.; Chang, C. S.; **Chen, H. L.***; Ho, D. L.; Tsao, C. S.; Peng, K. Y.; Chen, S. A., Aging of Poly(2-Methoxy-5-(2'-Ethylhexyloxy)-1,4-Phenylenevinylene)/Toluene Solutions and Subsequent Effects on Luminescence Behavior of Cast Films. *Langmuir* **2004**, 20, 8909-8915.
 49. Huang, Y. H.; Yang, C. H.; **Chen, H. L.***; Chiu, F. C.; Lin, T. L.; Liou, W., Crystallization-Induced Microdomain Coalescence in Sphere-Forming Crystalline-Amorphous Diblock Copolymer Systems: Neat Diblock Versus the Corresponding Blends. *Macromolecules* **2004**, 37, 486-493.
 50. Huang, Y. Y.; Nandan, B.; **Chen, H. L.***; Liao, C. S.; Jeng, U. S., CocrySTALLization Behavior in Binary Blend of Crystalline - Amorphous Diblock Copolymers. *Macromolecules* **2004**, 37, 8175-8179.
 51. Nandan, B.; **Chen, H. L.***; Liao, C. S.; Chen, S. A., Self-Assembly and Crystallization in a Supramolecular Hairy Rod Polymer from the Complex of Polyaniline with Omega-Methoxy Poly(Ethylene Oxide) Phosphates. *Macromolecules* **2004**, 37, 9561-9570.
 52. Tsao, C. S.; **Chen, H. L.***, Concurrent Transformation of Copolymer Domain Morphology Induced by the Order-Disorder Transition of Comb Block in Supramolecular Comb-Coil Block Copolymer. *Macromolecules* **2004**, 37, 8984-8991.
 53. Wu, C. M.; **Chen, H. L.***; Lin, T. L.; Liou, W. S.; Lin, J. S., A Two-State Model for the Multilamellar Structure of a DNA/Cationic Lipid Complex in the Bulk. *Langmuir* **2004**, 20, 9432-9436.
 54. Wu, C. M.; **Chen, H. L.***; Liou, W.; Lin, T. L.; Jeng, U. S., DNA-Induced Aggregation of Zwitterionic Oligolamellar Liposome. *Biomacromolecules* **2004**, 5, 2324-2328.
 55. Wu, C. M.; Liou, W.; **Chen, H. L.***; Lin, T. L.; Jeng, U. S., Self-Assembled Structure of the Binary Complex of DNA with Cationic Lipid. *Macromolecules* **2004**, 37, 4974-4980.
 56. Yang, C.-C.; Wu, P.-T.; Chen, W.-C.; **Chen, H.-L.**, Low Dielectric Constant Nanoporous Poly(Methyl Silsesquioxane) Using Poly(Styrene-Block-2-Vinylpyridine) as a Template. *Polymer* **2004**, 45, 5691-5702.
 57. Hsu, J. Y.; Nandan, B.; Chen, M. C.; Chiu, F. C.; **Chen, H. L.***, Correlation between Crystallization Kinetics and Melt Phase Behavior of Crystalline-Amorphous Block Copolymer/Homopolymer Blends. *Polymer* **2005**, 46, 11837-11843.
 58. Hsu, W. L.; **Chen, H. L.***; Liou, W.; Lin, H. K.; Liu, W. L., Mesomorphic Complexes of DNA with the Mixtures of a Cationic Surfactant and a Neutral Lipid. *Langmuir* **2005**, 21, 9426-9431.
 59. Huang, Y. Y.; Nandan, B.; **Chen, H. L.***; Liao, C. S.; Jeng, U. S.,

- Cocrystallization in Binary Mixtures of Crystal Line-Amorphous Diblock Copolymers. *Abstracts of Papers of the American Chemical Society* **2005**, 230, U3759-U3759.
60. Jeng, U. S.; Hsu, C. H.; Lin, T. L.; Wu, C. M.; **Chen, H. L.**; Tai, L. A.; Hwang, K. C., Dispersion of Fullerenes in Phospholipid Bilayers and the Subsequent Phase Changes in the Host Bilayers. *Physica B-Condensed Matter* **2005**, 357, 193-198.
 61. Liu, Y.-C.; **Chen, H.-L.***; Lin, H.-K.; Liu, W.-L.; Chou, Y.-W.; Lo, S.-C.; Tai, C.-H., DNA Condensation Induced by Nanoparticle-Embedded Dendrimer Leading to Pearl-Chain Nanowires. *Biomacromolecules* **2005**, 6, 3481-3485.
 62. Liu, Y.-C.; **Chen, H.-L.***; Su, C.-J.; Lin, H.-K.; Liu, W.-L.; Jeng, U. S., Mesomorphic Complexes of Poly(Amidoamine) Dendrimer with DNA. *Macromolecules* **2005**, 38, 9434-9440.
 63. Lu, S.-Y.; Chang, C.-H.; Yu, C.-H.; **Chen, H.-L.**; Lo, Y. H., Titania Nano-Network Film Templated from Microphase-Separated Block Copolymer and Its Photocatalysis in Fractured Form. *Journal of Materials Research* **2005**, 20, 1523-1528.
 64. Nandan, B.; Lee, C. H.; **Chen, H. L.***; Chen, W. C., Molecular Architecture Effect on the Microphase Separations in Supramolecular Comb-Coil Complexes of Polystyrene-Block-Poly(2-Vinylpyridine) with Dodecylbenzenesulfonic Acid: (Ab)(N)a(N) Block-Arm Star Copolymer. *Macromolecules* **2005**, 38, 10117-10126.
 65. Ou-Yang, W. C.; Chang, C. S.; **Chen, H. L.***; Tsao, C. S.; Peng, K. Y.; Chen, S. A.; Han, C. C., Micellelike Aggregates in Solutions of Semirigid Hairy-Rod Polymers. *Physical Review E* **2005**, 72.
 66. Shieh, Y. T.; Yang, H. S.; **Chen, H. L.**; Lin, T. L., Nonisothermal Crystallization of Compatible Pcl/Pvc Blends under Supercritical Co₂. *Polymer Journal* **2005**, 37, 932-938.
 67. Hsu, W. L.; Li, Y. C.; **Chen, H. L.***; Liou, W.; Jeng, U. S.; Lin, H. K.; Liu, W. L.; Hsu, C. S., Thermally-Induced Order-Order Transition of DNA-Cationic Surfactant Complexes. *Langmuir* **2006**, 22, 7521-7527.
 68. Huang, H.-C.; Huang, G.-L.; **Chen, H.-L.**; Lee, Y.-D., Immobilization of Tio₂ Nanoparticles on Fe-Filled Carbon Nanocapsules for Photocatalytic Applications. *Thin Solid Films* **2006**, 515, 1033-1037.
 69. Li, Y. C.; Chen, K. B.; **Chen, H. L.***; Hsu, C. S.; Tsao, C. S.; Chen, J. H.; Chen, S. A., Fractal Aggregates of Conjugated Polymer in Solution State. *Langmuir* **2006**, 22, 11009-11015.
 70. Nandan, B.; Hsu, J. Y.; **Chen, H. L.***, Crystallization Behavior of Crystalline-Amorphous Diblock Copolymers Consisting of a Rubbery Amorphous Block. *Polymer Reviews* **2006**, 46, 143-172.
 71. Nandan, B.; Lee, C. H.; **Chen, H. L.***; Chen, W. C., Molecular Architecture Effect on Microphase Separation in Supramolecular Comb-Coil Complexes of Polystyrene-Block-Poly(2-Vinylpyridine) with Dodecylbenzenesulfonic Acid: A(N)B(N) Heteroarm Star Copolymer. *Macromolecules* **2006**, 39, 4460-4468.
 72. Su, C.-J.; Liu, Y.-C.; **Chen, H.-L.***; Li, Y.-C.; Lin, H.-K.; Liu, W.-L.; Hsu, C.-S., Two-Dimensional Densely Packed DNA Nanostructure Derived from DNA Complexation with a Low-Generation Poly(Amidoamine) Dendrimer. *Langmuir* **2006**, 23, 975-978.

73. Wu, K.-H.; Lu, S.-Y.; **Chen, H.-L.**, Formation of Parallel Strips in Thin Films of Polystyrene/Poly(Vinyl Pyrrolidone) Blends Via Spin Coating on Unpatterned Substrates. *Langmuir* **2006**, *22*, 8029-8035.
74. **Chen, H. L.***; Lu, J. S.; Yu, C. H.; Yeh, C. L.; Jeng, U. S.; Chen, W. C., Tetragonally Packed Cylinder Structure Via Hierarchical Assembly of Comb-Coil Diblock Copolymer. *Macromolecules* **2007**, *40*, 3271-3276.
75. Hsu, J. Y.; Hsieh, I. F.; Nandan, B.; Chiu, F. C.; Chen, J. H.; Jeng, U. S.; **Chen, H. L.***, Crystallization Kinetics and Crystallization-Induced Morphological Formation in the Blends of Poly(Epsilon-Caprolactone)-Block-Polybutadiene and Polybutadiene Homopolymer. *Macromolecules* **2007**, *40*, 5014-5022.
76. Huang, Y. Y.; Hsu, J. Y.; **Chen, H. L.***; Hashimoto, T., Existence of Fcc-Packed Spherical Micelles in Diblock Copolymer Melt. *Macromolecules* **2007**, *40*, 406-409.
77. Huang, Y. Y.; Hsu, J. Y.; **Chen, H. L.***; Hashimoto, T., Precursor-Driven Bcc-Fcc Order-Order Transition of Sphere-Forming Block Copolymer/Homopolymer Blend. *Macromolecules* **2007**, *40*, 3700-3707.
78. Lee, C. H.; Chen, W. C.; Hsu, J. Y.; **Chen, H. L.***, Effect of Molecular Architecture of Copolymer Template on the Morphology of Mesoporous Methylsilsesquioxane. *Polymer* **2007**, *48*, 3546-3554.
79. Lu, S.-Y.; **Chen, H.-L.***; Wu, K.-H.; Chen, Y.-Y., Formation of Nanowire Striations Driven by Marangoni Instability in Spin-Cast Polymer Thin Films. *Langmuir* **2007**, *23*, 10069-10073.
80. Nandan, B.; Hsu, J. Y.; Chiba, A.; **Chen, H. L.***; Liao, C. S.; Chen, S. A.; Hasegawa, H., Highly Oriented Nanowires from the Hierarchical Self-Assembly in Supramolecular Complex of Polyaniline with Omega-Methoxypoly(Ethylene Oxide) Phosphates. *Macromolecules* **2007**, *40*, 395-398.
81. Rahman, M. H.; Chen, C. Y.; Liao, S. C.; **Chen, H. L.***; Tsao, C. S.; Chen, J. H.; Liao, J. L.; Ivanov, V. A.; Chen, S. A., Segmental Alignment in the Aggregate Domains of Poly(9,9-Dioctylfluorene) in Semidilute Solution. *Macromolecules* **2007**, *40*, 6572-6578.
82. Tsao, C.-S.; Yu, M.-S.; Chung, T.-Y.; Wu, H.-C.; Wang, C.-Y.; Chang, K.-S.; **Chen, H.-L.**, Characterization of Pore Structure in Metal–Organic Framework by Small-Angle X-Ray Scattering. *Journal of the American Chemical Society* **2007**, *129*, 15997-16004.
83. Yeh, W.-L.; **Chen, H.-L.***; Chen, S.-A., Synthesis and Spectral Characterizations of Electroluminescent Poly(2,3-Di-[P-(2-Ethylhexoxy)Phenyl]-1,4-Phenylenevinylene). *Synthetic Metals* **2007**, *157*, 407-413.
84. Castillo, R. V.; Muller, A. J.; Lin, M. C.; **Chen, H. L.***; Jeng, U. S.; Hillmyer, M. A., Confined Crystallization and Morphology of Melt Segregated Plla-B-Pe and Plda-B-Pe Diblock Copolymers. *Macromolecules* **2008**, *41*, 6154-6164.
85. Chiang, W. S.; Lin, C. H.; Nandan, B.; Yeh, C. L.; Rahman, M. H.; Chen, W. C.; **Chen, H. L.***, Molecular Architecture Effect on the Self-Assembly Behavior of Comb-Coil Block Copolymers Displaying Lamellae-within-Lamellae Morphology. *Macromolecules* **2008**, *41*, 8138-8147.
86. Hsiao, M. S.; Zheng, J. X.; Leng, S. W.; Van Horn, R. M.; Quirk, R. P.; Thomas, E. L.; **Chen, H. L.**; Hsiao, B. S.; Rong, L. X.; Lotz, B., et al., Crystal Orientation Change and Its Origin in One-Dimensional Nanoconfinement Constructed by

- Polystyrene-Block-Poly(Ethylene Oxide) Single Crystal Mats. *Macromolecules* **2008**, *41*, 8114-8123.
87. Lee, P.-W.; Peng, S.-F.; Su, C.-J.; Mi, F.-L.; **Chen, H.-L.**; Wei, M.-C.; Lin, H.-J.; Sung, H.-W., The Use of Biodegradable Polymeric Nanoparticles in Combination with a Low-Pressure Gene Gun for Transdermal DNA Delivery. *Biomaterials* **2008**, *29*, 742-751.
 88. Lin, C. H.; Chen, W. C.; **Chen, H. L.***, Heteroarm Star Polystyrene-Block-Poly(4-Vinylpyridine): Multiple Morphologies in Dilute Solutions. *Macromolecular Chemistry and Physics* **2008**, *209*, 2349-2358.
 89. Su, C. J.; Yeh, S. W.; Lai, W. C.; **Chen, H. L.***; Rahman, M. H.; Wu, R. J.; Lin, H. K.; Liu, W. L., Condensed Multilamellar Structure of a Complex of DNA with an Amphiphilic Block Copolymer. *Soft Matter* **2008**, *4*, 1306-1312.
 90. Wu, K.-H.; Lu, S.-Y.; **Chen, H.-L.**; Chen, Y.-Y., Two-Dimensional Marangoni-Instability-Induced Periodic Patterns of Polymer Blend Films Cast on Tilted Substrates. *Macromolecular Chemistry and Physics* **2008**, *209*, 615-624.
 91. Chen, J. H.; Chang, C. S.; Chang, Y. X.; Chen, C. Y.; **Chen, H. L.***; Chen, S. A., Gelation and Its Effect on the Photophysical Behavior of Poly(9,9-Dioctylfluorene-2,7-Diyl) in Toluene. *Macromolecules* **2009**, *42*, 1306-1314.
 92. Chen, M.-C.; Wong, H.-S.; Lin, K.-J.; **Chen, H.-L.**; Wey, S.-P.; Sonaje, K.; Lin, Y.-H.; Chu, C.-Y.; Sung, H.-W., The Characteristics, Biodistribution and Bioavailability of a Chitosan-Based Nanoparticulate System for the Oral Delivery of Heparin. *Biomaterials* **2009**, *30*, 6629-6637.
 93. Chiang, W. S.; Lin, C. H.; Yeh, C. L.; Nandan, B.; Hsu, P. N.; Lin, C. W.; **Chen, H. L.***; Chen, W. C., Tetragonally Packed Cylinder Structure of Comb-Coil Block Copolymer Bearing Heteroarm Star Architecture. *Macromolecules* **2009**, *42*, 2304-2308.
 94. Chiu, Y. L.; Chen, M. C.; Chen, C. Y.; Lee, P. W.; Mi, F. L.; Jeng, U. S.; **Chen, H. L.***; Sung, H. W., Rapidly in Situ Forming Hydrophobically-Modified Chitosan Hydrogels Via Ph-Responsive Nanostructure Transformation. *Soft Matter* **2009**, *5*, 962-965.
 95. Chiu, Y. L.; Chen, S. C.; Su, C. J.; Hsiao, C. W.; Chen, Y. M.; **Chen, H. L.***; Sung, H. W., Ph-Triggered Injectable Hydrogels Prepared from Aqueous N-Palmitoyl Chitosan: In Vitro Characteristics and in Vivo Biocompatibility. *Biomaterials* **2009**, *30*, 4877-4888.
 96. Hsiao, M. S.; Zheng, J. X.; Horn, R. M. V.; Quirk, R. P.; Thomas, E. L.; **Chen, H. L.**; Lotz, B.; Cheng, S. Z. D., Poly(Ethylene Oxide) Crystal Orientation Change under 1d Nanoscale Confinement Using Polystyrene-Block-Poly(Ethylene Oxide) Copolymers: Confined Dimension and Reduced Tethering, Density Effects. *Macromolecules* **2009**, *42*, 8343-8352.
 97. Li, Y. C.; Chen, C. Y.; Chang, Y. X.; Chuang, P. Y.; Chen, J. H.; **Chen, H. L.***; Hsu, C. S.; Ivanov, V. A.; Khalatur, P. G.; Chen, S. A., Scattering Study of the Conformational Structure and Aggregation Behavior of a Conjugated Polymer Solution. *Langmuir* **2009**, *25*, 4668-4677.
 98. Liao, S. C.; Lai, C. S.; Yeh, D. D.; Rahman, M. H.; Hsu, C. S.; **Chen, H. L.***; Chen, S. A., Supramolecular Structures of an Amphiphilic Hairy-Rod Conjugated Copolymer Bearing Poly(Ethylene Oxide) Side Chain. *Reactive & Functional Polymers* **2009**, *69*, 498-506.

99. Lorenzo, A. T.; Muller, A. J.; Lin, M. C.; **Chen, H. L.***; Jeng, U. S.; Priftis, D.; Pitsikalis, M.; Hadjichristidis, N., Influence of Macromolecular Architecture on the Crystallization of (Pcl₂)-B-(Ps₂) 4-Miktoarm Star Block Copolymers in Comparison to Linear Pcl-B-Ps Diblock Copolymer Analogues. *Macromolecules* **2009**, *42*, 8353-8364.
100. Peng, S.-F.; Yang, M.-J.; Su, C.-J.; **Chen, H.-L.**; Lee, P.-W.; Wei, M.-C.; Sung, H.-W.*, Effects of Incorporation of Poly(Γ -Glutamic Acid) in Chitosan/DNA Complex Nanoparticles on Cellular Uptake and Transfection Efficiency. *Biomaterials* **2009**, *30*, 1797-1808.
101. Rahman, M. H.; Liao, S. C.; **Chen, H. L.***; Chen, J. H.; Ivanov, V. A.; Chu, P. P. J.; Chen, S. A., Aggregation of Conjugated Polymers in Aromatic Solvent. *Langmuir* **2009**, *25*, 1667-1674.
102. Su, C. J.; **Chen, H. L.***; Wei, M. C.; Peng, S. F.; Sung, H. W.; Ivanov, V. A., Columnar Mesophases of the Complexes of in DNA with Low-Generation Poly(Amido Amine) Dendrimers. *Biomacromolecules* **2009**, *10*, 773-783.
103. Tsao, C. S.; Yu, M. S.; Wang, C. Y.; Liao, P. Y.; **Chen, H. L.**; Jeng, U. S.; Tzeng, Y. R.; Chung, T. Y.; Wut, H. C., Nanostructure and Hydrogen Spillover of Bridged Metal-Organic Frameworks. *Journal of the American Chemical Society* **2009**, *131*, 1404+.
104. Tzeng, F. Y.; Lin, M. C.; Wu, J. Y.; Kuo, J. C.; Tsai, J. C.; Hsiao, M. S.; **Chen, H. L.**; Cheng, S. Z. D., Stereoregular Diblock Copolymers of Syndiotactic Polypropylene and Polyesters: Syntheses and Self-Assembled Nanostructures. *Macromolecules* **2009**, *42*, 3073-3085.
105. Chan, S.-H.; Hsiao, Y.-S.; Hung, L.-I.; Hwang, G.-W.; **Chen, H.-L.**; Ting, C.; Chen, C.-P., Morphology Evolution of Spin-Coated Films of Poly(Thiophene-Phenylene-Thiophene) and [6,6]-Phenyl-C71-Butyric Acid Methyl Ester by Solvent Effect. *Macromolecules* **2010**, *43*, 3399-3405.
106. Chen, C. Y.; Chan, S. H.; Li, J. Y.; Wu, K. H.; **Chen, H. L.***; Chen, J. H.; Huang, W. Y.; Chen, S. A., Formation and Thermally-Induced Disruption of Nanowhiskers in Poly(3-Hexylthiophene)/Xylene Gel Studied by Small-Angle X-Ray Scattering. *Macromolecules* **2010**, *43*, 7305-7311.
107. Chen, C. Y.; Chang, C. S.; Huang, S. W.; Chen, J. H.; **Chen, H. L.***; Su, C. L.; Chen, S. A., Phase-Separation-Induced Gelation of Poly(9,9-Dioctylfluorene) Methylcyclohexane Solution. *Macromolecules* **2010**, *43*, 4346-4354.
108. Chiu, Y. L.; Chen, S. A.; Chen, J. H.; Chen, K. J.; **Chen, H. L.***; Sung, H. W., A Dual-Emission Forster Resonance Energy Transfer Nanoprobe for Sensing/Imaging Ph Changes in the Biological Environment. *Acs Nano* **2010**, *4*, 7467-7474.
109. Chu, C. Y.; **Chen, H. L.***; Hsiao, M. S.; Chen, J. H.; Nandan, B., Crystallization in the Binary Blends of Crystalline-Amorphous Diblock Copolymers Bearing Chemically Different Crystalline Block. *Macromolecules* **2010**, *43*, 3376-3382.
110. Liao, Z.-X.; Ho, Y.-C.; **Chen, H.-L.**; Peng, S.-F.; Hsiao, C.-W.; Sung, H.-W.*, Enhancement of Efficiencies of the Cellular Uptake and Gene Silencing of Chitosan/Sirna Complexes Via the Inclusion of a Negatively Charged Poly(Γ -Glutamic Acid). *Biomaterials* **2010**, *31*, 8780-8788.
111. Liu, Y.; Chen, C.-Y.; **Chen, H.-L.***; Hong, K.; Shew, C.-Y.; Li, X.; Liu, L.; Melnichenko, Y. B.; Smith, G. S.; Herwig, K. W., et al., Electrostatic Swelling and Conformational Variation Observed in High-Generation Polyelectrolyte

- Dendrimers. *The Journal of Physical Chemistry Letters* **2010**, *1*, 2020-2024.
112. Lukyanov, A.; Malafeev, A.; Ivanov, V.; **Chen, H. L.**; Kremer, K.; Andrienko, D., Solvated Poly-(Phenylene Vinylene) Derivatives: Conformational Structure and Aggregation Behavior. *Journal of Materials Chemistry* **2010**, *20*, 10475-10485.
 113. Peng, S. F.; Su, C. J.; Wei, M. C.; Chen, C. Y.; Liao, Z. X.; Lee, P. W.; **Chen, H. L.***; Sung, H. W., Effects of the Nanostructure of Dendrimer/DNA Complexes on Their Endocytosis and Gene Expression. *Biomaterials* **2010**, *31*, 5660-5670.
 114. Rahman, M. H.; **Chen, H. L.***; Chen, S. A.; Chu, P. P. J., H-1 Nmr Spectroscopic Study of the Solution Structure of a Conjugated Polymer. *Journal of the Chinese Chemical Society* **2010**, *57*, 490-495.
 115. Sonaje, K.; Chen, Y.-J.; **Chen, H.-L.**; Wey, S.-P.; Juang, J.-H.; Nguyen, H.-N.; Hsu, C.-W.; Lin, K.-J.; Sung, H.-W., Enteric-Coated Capsules Filled with Freeze-Dried Chitosan/Poly(Γ -Glutamic Acid) Nanoparticles for Oral Insulin Delivery. *Biomaterials* **2010**, *31*, 3384-3394.
 116. Tsao, C. S.; Chen, C. Y.; Chung, T. Y.; Su, C. J.; Su, C. H.; **Chen, H. L.**; Jeng, U. S.; Yu, M. S.; Liao, P. Y.; Lin, K. F., et al., Structural Analysis and Thermal Behavior of Pore Networks in High-Surface-Area Metal-Organic Framework. *Journal of Physical Chemistry C* **2010**, *114*, 7014-7020.
 117. Chan, S.-H.*; Lai, C.-S.; **Chen, H.-L.**; Ting, C.; Chen, C.-P.*, Highly Efficient P3ht: C60 Solar Cell Free of Annealing Process. *Macromolecules* **2011**, *44*, 8886-8891.
 118. Chang, C. J.; Lee, Y. H.; **Chen, H. L.**; Chiang, C. H.; Hsu, H. F.; Ho, C. C.; Su, W. F.; Dai, C. A., Effect of Rod-Rod Interaction on Self-Assembly Behavior of Abc Pi-Conjugated Rod-Coil-Coil Triblock Copolymers. *Soft Matter* **2011**, *7*, 10951-10960.
 119. Chen, C. Y.; Su, C. J.; Peng, S. F.; **Chen, H. L.***; Sung, H. W., Dendrimer-Induced DNA Bending. *Soft Matter* **2011**, *7*, 61-63.
 120. Chen, J.-Y.; Kuo, C.-C.; Lai, C.-S.; Chen, W.-C.; **Chen, H.-L.***, Manipulation on the Morphology and Electrical Properties of Aligned Electrospun Nanofibers of Poly(3-Hexylthiophene) for Field-Effect Transistor Applications. *Macromolecules* **2011**, *44*, 2883-2892.
 121. Cong, Y. H.; Liu, H.; Wang, D. L.; Zhao, B. J.; Yan, T. Z.; Li, L. B.*; Chen, W.; Zhong, Z. Y.; Lin, M. C.; **Chen, H. L.**, et al., Stretch-Induced Crystallization through Single Molecular Force Generating Mechanism. *Macromolecules* **2011**, *44*, 5878-5882.
 122. Ke, C.-J.; Su, T.-Y.; **Chen, H.-L.**; Liu, H.-L.; Chiang, W.-L.; Chu, P.-C.; Xia, Y.*; Sung, H.-W., Smart Multifunctional Hollow Microspheres for the Quick Release of Drugs in Intracellular Lysosomal Compartments. *Angewandte Chemie International Edition* **2011**, *50*, 8086-8089.
 123. Lee, Y.-F.; Chang, K.-H.; Chu, C.-Y.; **Chen, H.-L.**; Hu, C.-C.*, Microstructure Tuning of Mesoporous Silica Prepared by Evaporation-Induced Self-Assembly Processes: Interactions among Solvent Evaporation, Micelle Formation/Packing and Sol Condensation. *RSC Advances* **2011**, *1*, 401-407.
 124. Lin, M. C.; Wang, Y. C.; **Chen, H. L.***; Muller, A. J.; Su, C. J.; Jeng, U. S., Critical Analysis of the Crystal Orientation Behavior in Polyethylene-Based Crystalline-Amorphous Diblock Copolymer. *Journal of Physical Chemistry B* **2011**, *115*, 2494-2502.

125. Lin, M. C.; Wang, Y. C.; Chen, J. H.; **Chen, H. L.***; Muller, A. J.; Su, C. J.; Jeng, U. S., Orthogonal Crystal Orientation in Double-Crystalline Block Copolymer. *Macromolecules* **2011**, *44*, 6875-6884.
126. Lorenzo, A. T.; Arnal, M. L.; Müller, A. J.; Lin, M.-C.; **Chen, H.-L.**, Sxas/Dsc Analysis of the Lamellar Thickness Distribution on a Ssa Thermally Fractionated Model Polyethylene. *Macromolecular Chemistry and Physics* **2011**, *212*, 2009-2016.
127. Su, C. J.; Chen, C. Y.; **Chen, H. L.***; Ivanov, V. A., Beads-on-String Structure of the Electrostatic Complex of DNA with a High-Generation Pamam Dendrimer. In *Future Trends in Soft Materials Research with Advanced Light Sources*, Takahara, A.; Sakurai, K., Eds. **2011**.
128. Sun, H. S.; Lee, C. H.; Lai, C. S.; **Chen, H. L.**; Tung, S. H.*; Chen, W. C.*, Self-Assembled Structures in Rod-Coil Block Copolymers with Hydrogen-Bonded Amphiphiles. *Soft Matter* **2011**, *7*, 4198-4206.
129. Wu, C. M.; Chen, C. Y.; Lin, S. Y.; **Chen, H. L.***, Effect of Divalent Cations on DNA Condensed on the Surface of Rigid Cationic Membrane. *Reactive & Functional Polymers* **2011**, *71*, 266-271.
130. Yeh, C. L.; Hou, T.; **Chen, H. L.***; Yeh, L. Y.; Chiu, F. C.; Muller, A. J.; Hadjichristidis, N., Lower Critical Ordering Transition of Poly(Ethylene Oxide)-Block-Poly(2-Vinylpyridine). *Macromolecules* **2011**, *44*, 440-443.
131. Chen, J. H.; Su, C. I.; **Chen, H. L.***; Chang, C. S.; Chang, Y. C.; Chen, L. C.; Chen, S. A., Gelation Behavior of Poly(9,9-Dioctylfluorene)/Poly 9,9-Di(2-Ethylhexyl)-Fluorenyl-2,7-Diyl Blend in Methylcyclohexane Solutions. *Langmuir* **2012**, *28*, 17457-17464.
132. Chen, K.-J.; Liang, H.-F.; **Chen, H.-L.**; Wang, Y.; Cheng, P.-Y.; Liu, H.-L.; Xia, Y.; Sung, H.-W.*, A Thermoresponsive Bubble-Generating Liposomal System for Triggering Localized Extracellular Drug Delivery. *ACS Nano* **2012**, *7*, 438-446.
133. Chu, C. Y.; Lin, W. F.; Tsai, J. C.; Lai, C. S.; Lo, S. C.; **Chen, H. L.***; Hashimoto, T., Order-Order Transition between Equilibrium Ordered Bicontinuous Nanostructures of Double Diamond and Double Gyroid in Stereoregular Block Copolymer. *Macromolecules* **2012**, *45*, 2471-2477.
134. Huang, W.-C.; Chiang, W.-H.; Lin, S.-J.; Lan, Y.-J.; **Chen, H.-L.**; Chern, C.-S.; Chiu, H.-C., Lipid-Containing Polymer Vesicles with Ph/Ca²⁺-Ion-Manipulated, Size-Selective Permeability. *Advanced Functional Materials* **2012**, *22*, 2267-2275.
135. Lin, M. C.; **Chen, H. L.***; Lin, W. F.; Huang, P. S.; Tsai, J. C., Crystallization of Isotactic Polypropylene under the Spatial Confinement Templated by Block Copolymer Microdomains. *Journal of Physical Chemistry B* **2012**, *116*, 12357-12371.
136. Lin, M. C.; **Chen, H. L.***; Su, W. B.; Su, C. J.; Jeng, U. S.; Tzeng, F. Y.; Wu, J. Y.; Tsai, J. C.; Hashimoto, T., Interactive Crystallization Kinetics in Double-Crystalline Block Copolymer. *Macromolecules* **2012**, *45*, 5114-5127.
137. Lin, M. C.; Nandan, B.; **Chen, H. L.***, Mediating Polymer Crystal Orientation Using Nanotemplates from Block Copolymer Microdomains and Anodic Aluminium Oxide Nanochannels. *Soft Matter* **2012**, *8*, 7306-7322.
138. Michell, R. M.; Lorenzo, A. T.; Muller, A. J.*; Lin, M. C.; **Chen, H. L.**; Blaszczyk-Lezak, I.; Martin, J.; Mijangos, C., The Crystallization of Confined

- Polymers and Block Copolymers Infiltrated within Alumina Nanotube Templates. *Macromolecules* **2012**, *45*, 1517-1528.
139. Pal, J.; Sanwaria, S.; Srivastava, R.; Nandan, B.; Horechyy, A.; Stamm, M.; **Chen, H. L.***, Hairy Polymer Nanofibers Via Self-Assembly of Block Copolymers. *Journal of Materials Chemistry* **2012**, *22*, 25102-25107.
 140. Su, C. J.; Chen, C. Y.; Lin, M. C.; **Chen, H. L.***; Iwase, H.; Koizumi, S.; Hashimoto, T., Nucleosome-Like Structure from Dendrimer-Induced DNA Compaction. *Macromolecules* **2012**, *45*, 5208-5217.
 141. Wu, C.-M.*; Lin, S.-Y.; **Chen, H.-L.**, Structure of a Monolithic Silica Aerogel Prepared from a Short-Chain Ionic Liquid. *Microporous and Mesoporous Materials* **2012**, *156*, 189-195.
 142. Chen, P. Y.; Rassamesard, A.; **Chen, H. L.***; Chen, S. A., Conformation and Fluorescence Property of Poly(3-Hexylthiophene) Isolated Chains Studied by Single Molecule Spectroscopy: Effects of Solvent Quality and Regioregularity. *Macromolecules* **2013**, *46*, 5657-5663.
 143. Chiang, P. R.; Lin, T. Y.; Tsai, H. C.; **Chen, H. L.***; Liu, S. Y.; Chen, F. R.; Hwang, Y. S.; Chu, I. M., Thermosensitive Hydrogel from Oligopeptide-Containing Amphiphilic Block Copolymer: Effect of Peptide Functional Group on Self-Assembly and Gelation Behavior. *Langmuir* **2013**, *29*, 15981-15991.
 144. Chuang, E.-Y.; Lin, K.-J.; Su, F.-Y.; **Chen, H.-L.**; Maiti, B.; Ho, Y.-C.; Yen, T.-C.; Panda, N.; Sung, H.-W.*, Calcium Depletion-Mediated Protease Inhibition and Apical-Junctional-Complex Disassembly Via an Egta-Conjugated Carrier for Oral Insulin Delivery. *Journal of Controlled Release* **2013**, *169*, 296-305.
 145. Ke, C.-J.; Chiang, W.-L.; Liao, Z.-X.; **Chen, H.-L.**; Lai, P.-S.; Sun, J.-S.*; Sung, H.-W., Real-Time Visualization of Ph-Responsive Plga Hollow Particles Containing a Gas-Generating Agent Targeted for Acidic Organelles for Overcoming Multi-Drug Resistance. *Biomaterials* **2013**, *34*, 1-10.
 146. Kuo, W. T.; **Chen, H. L.***; Goseki, R.; Hirao, A.; Chen, W. C., Interplay between the Phase Transitions at Different Length Scales in the Supramolecular Comb-Coil Block Copolymers Bearing (Ab)(N) Multiblock Architecture. *Macromolecules* **2013**, *46*, 9333-9340.
 147. Lai, C. S.; Ho, C. C.; **Chen, H. L.***; Su, W. F., Phase Behavior of the Blend of Rod-Coil Diblock Copolymer and the Corresponding Coil Homopolymer. *Macromolecules* **2013**, *46*, 2249-2257.
 148. Lee, C. C.; Lai, S. Y.; Su, W. B.; **Chen, H. L.**; Chung, C. L.; Chen, J. H.*, Relationship between the Microstructure Development and the Photoluminescence Efficiency of Electrospun Poly(9,9-Dioctylfluorene-2,7-Diyl) Fibers. *Journal of Physical Chemistry C* **2013**, *117*, 20387-20396.
 149. Liao, Z.-X.; Hsiao, C.-W.; Ho, Y.-C.; **Chen, H.-L.**; Sung, H.-W.*, Disulfide Bond-Conjugated Dual Pegylated Sirnas for Prolonged Multiple Gene Silencing. *Biomaterials* **2013**, *34*, 6930-6937.
 150. Su, H. H.; **Chen, H. L.***; Diaz, A.; Casas, M. T.; Puiggali, J.; Hoskins, J. N.; Grayson, S. M.; Perez, R. A.; Muller, A. J., New Insights on the Crystallization and Melting of Cyclic Pcl Chains on the Basis of a Modified Thomson-Gibbs Equation. *Polymer* **2013**, *54*, 846-859.
 151. Chen, P. Y.; Rassamesard, A.; Hung, M. C.; **Chen, H. L.***; Chen, S. A., C-Beta

- Conformer Formation in Poly(9,9-Dioctylfluorene) Single Chains Facilitated by Endcapping with an Electron Deficient Moiety. *Rsc Advances* **2014**, *4*, 14365-14368.
152. Chu, C. Y.; Chen, M. H.; Wu, M. L.; **Chen, H. L.***; Chiu, Y. T.; Chen, S. M.; Huang, C. H., Hierarchical Structure and Crystal Orientation in Poly(Ethylene Oxide)/Clay Nanocomposite Films. *Langmuir* **2014**, *30*, 2886-2895.
 153. Kao, K.-Y.; Lo, S.-C.; **Chen, H.-L.***; Chen, J.-H.; Chen, S.-A., Gelation of a Solution of Poly(3-Hexylthiophene) Greatly Retards Its Crystallization Rate in the Subsequently Cast Film. *The Journal of Physical Chemistry B* **2014**, *118*, 14510-14518.
 154. Lin, M. C.; Hsu, C. H.; Sun, H. J.; Wang, C. L.; Zhang, W. B.; Li, Y. W.; **Chen, H. L.**; Cheng, S. Z. D.*, Crystal Structure and Molecular Packing of an Asymmetric Giant Amphiphile Constructed by One C-60 and Two Posss. *Polymer* **2014**, *55*, 4514-4520.
 155. Liu, C. Y.; Li, X.; Chen, W. Y.; Chang, L. C.; Chen, Y. F.; **Chen, H. L.**; Sun, Y. S.; Lai, H. Y.; Huang, E. W.*, Pegylation Site-Dependent Structural Heterogeneity Study of Monopegylated Human Parathyroid Hormone Fragment Hpth(1-34). *Langmuir* **2014**, *30*, 11421-11427.
 156. Sanwaria, S.; Horechyy, A.; Wolf, D.; Chu, C. Y.; **Chen, H. L.**; Formanek, P.; Stamm, M.; Srivastava, R.; Nandan, B., Helical Packing of Nanoparticles Confined in Cylindrical Domains of a Self-Assembled Block Copolymer Structure. *Angewandte Chemie-International Edition* **2014**, *53*, 9090-9093.
 157. Wu, C. M.*; Lin, S. Y.; Kao, K. Y.; **Chen, H. L.**, Self-Organization of a Hydrophilic Short-Chain Ionic Liquid Confined within a Hydrophobic Nanopore. *Journal of Physical Chemistry C* **2014**, *118*, 17764-17772.
 158. Yang, C. C.; Huang, Y. C.; Chen, C. Y.; Su, C. J.; **Chen, H. L.***; Ivanov, V. A., Structure of the Electrostatic Complex of DNA with Cationic Dendrimer of Intermediate Generation: The Role of Counterion Entropy. *Macromolecules* **2014**, *47*, 3117-3127.
 159. Yang, H. J.; He, S. Y.; **Chen, H. L.**; Tuan, H. Y.*, Monodisperse Copper Nanocubes: Synthesis, Self-Assembly, and Large-Area Dense-Packed Films. *Chemistry of Materials* **2014**, *26*, 1785-1793.
 160. Hsiao, C. W.; Chuang, E. Y.; **Chen, H. L.**; Wanb, D.; Korupallia, C.; Liaoc, Z. X.; Chiua, Y. L.; Chiad, W. T.; Line, K. J.; Sung, H. W., Photothermal tumor ablation in mice with repeated therapy sessions using NIR-absorbing micellar hydrogels formed in situ. *Biomaterials* **2015**, *56*, 26-35.
 161. Chuang, E. Y.; Lin, K. J.; Lin, P. Y.; **Chen, H. L.**; Wey, S. P.; Mi, F. L.; Hsiao, H. C.; Chen, C. T.; Sung, H. W., Self-assembling bubble carriers for oral protein delivery. *Biomaterials* **2015**, *64*, 115-124.
 162. Mansel, B. W.; Chu, C. Y.; Leis, A.; Hemar, Y.; **Chen, H. L.**; Lundin, L.; Williams, M. A., Zooming in: Structural Investigations of Rheologically Characterized Hydrogen-Bonded Low-Methoxyl Pectin Networks. *Biomacromolecules* **2015**, *16*, 3209-3216.
 163. Hsiao, C. W.; **Chen, H. L.**; Liao, Z. X.; Sureshababu, R.; Hsiao, H. C.; Lin, S. J.; Chang, Y.; Sung, H. W., Photothermal Agents: Effective Photothermal Killing of Pathogenic Bacteria by Using Spatially Tunable Colloidal Gels with Nano-Localized Heating Sources. *Advanced Functional Materials*, **2015**, *25*, 720-720
 164. Liu, C. L.; Lin, M. C.; **Chen, H. L.***; Müller, A. J., Evolution of Crystal

- Orientation in One-Dimensionally Confined Space Templated by Lamellae-Forming Block Copolymers. *Macromolecules* **2015**, 48, 4451-4460.
165. Lin, Y. C.; Chen, C. Y.; **Chen, H. L.***; Hashimoto, T.; Chen, S. A.; Li, Y. C., Hierarchical self-assembly of nanoparticles in polymer matrix and the nature of the interparticle interaction. *J. of Chem. Phys.*, **2015**, 142, 214905.
166. Chu, C. Y.; Jiang, X.; Jinnai, H.; Pei, R. Y.; Lin, W. F.; Tsai, J. C.; **Chen, H. L.***, Real-space evidence of the equilibrium ordered bicontinuous double diamond structure of a diblock copolymer. *Soft Matter* **2015**, 11, 1871-1876.
167. Huang, Y. C.; Su, C. J.; Chen, C. Y.; **Chen, H. L.***; Jeng, U. S.; Berezhnoy, N. V.; Nordenskiöld, L; Ivanov., V. A. Elucidating the DNA-Histone Interaction in Nucleosome from the DNA-Dendrimer Complex. *Macromolecules* **2016**, 49, 4277-4285.
167. Samanta, P.; Thangapandian, V.; Singh, S.; Srivastava, R.; Nandan, B.; Liu, C. L.; **Chen, H. L.*** Crystallization Behaviour of Poly(ethylene oxide) Under Confinement in Electrospun Nanofibers of Polystyrene/Poly(ethylene oxide) Blends *Soft Matter* **2016**, 12, 5110-5120.
168. Liu, C. Y.; **Chen, H. L.***; Do, C.; Hong, K. Spatial Distributions of Guest Molecule and Hydration Level in Dendrimer-based Guest-host Complex *ACS Macro Lett.* **2016**, 5, 1004–1008
169. Kao, K. Y.; Pei, R. Y.; **Chen, H. L.***; Chen, J. H.; Chen, S.A. Regioregularity Effect on the Self-assembly Behavior of Poly(3-hexylthiophene): The Significance of Triad Sequence *RSC Adv.* **2016,6**, 79209-79214.
170. Lin, Y. C.; **Chen, H. L.***; Hashimoto, T.*; Chen, S. A. Mechanism of Hierarchical Structure Formation of Polymer/Nanoparticle Hybrid *Macromolecules* **2016**, 49, 7535-7550
171. Wu, S.-L.; Hong, C.-Y.; Wu, K.-Y.; Lan, S.-T.; Hsieh, C.-T.; **Chen, H.-L.**; Wang, C.-L. Conformational Preferences and the Phase Stability of Fullerene Hexa-adducts. *Chemistry – An Asian Journal* **2016**, 11, 2011-2015
172. Ju, S.-P.; Chen, C.-C.; Huang, T.-J.; Liao, C.-H.; **Chen, H.-L.**; Chuang, Y.-C.; Wu, Y.-C.; Chen, H.-T. Investigation of the structural and mechanical properties of polypropylene-based carbon fiber nanocomposites by experimental measurement and molecular dynamics simulation. *Computational Materials Science* **2016**, 115, 1-10
173. Liu, C.-L.; **Chen, H.-L.*** Variable Crystal Orientation of Poly(ethylene oxide) Confined within the Tubular Space Templated by Anodic Aluminum Oxide Nanochannels. *Macromolecules* **2017**, 50 (2), 631-641
174. Lin, P.-Y.; Chuang, E.-Y.; Chiu, Y.-H.; **Chen, H.-L.**; Lin, K.-J.; Juang, J.-H.; Chiang, C.-H.; Mi, F.-L.; Sung, H.-W. Safety and efficacy of self-assembling bubble carriers stabilized with sodium dodecyl sulfate for oral delivery of therapeutic proteins. *J. Controlled Release* **2017**, 259
175. Lin, Y.-H.; **Chen, H.-L.***; Goseki, R.; Hirao, A. Phase Structure of the Exact Graft Copolymer Synthesized by Iterative Methodology Based on Living Anionic Polymerization. *Macromol. Chem. Phys.* **2017**, 218 (12), 1700150
176. Liu, C.-Y.; **Chen, H.-L.*** Undulating the Lamellar Interface of Polymer–Surfactant Complex by Dendrimer. *Macromolecules* **2017**, 50 (17), 6501-6508
177. Samanta, P.; Srivastava, R.; Nandan, B.; **Chen, H.-L.*** Crystallization behavior of crystalline/crystalline polymer blends under confinement in electrospun

- nanofibers of polystyrene/poly(ethylene oxide)/poly(ϵ -caprolactone) ternary mixtures. *Soft Matter* **2017**, 13 (8), 1569-1582
178. Singh, S.; Samanta, P.; Srivastava, R.; Horechyy, A.; Reuter, U.; Stamm, M.; **Chen, H.-L.**; Nandan, B. Ligand displacement induced morphologies in block copolymer/quantum dot hybrids and formation of core-shell hybrid nanoobjects. *Phys. Chem. Chem. Phys.* **2017**, 19 (40), 27651-27663
179. Tsai, C.-Y.; Zhang, Q.; Wang, Y.-Z.; Shyong, J.; **Chen, H.-L.**; Liaw, D.-J. Enhancing the emission of hexa-peri-hexabenzocoronene-containing polynorbornene via electron donating, unsymmetric constitution and solvent effects. *Polymer Chemistry* **2017**, 8 (21), 3327-3332
180. Wan, W.-L.; Lin, Y.-J.; **Chen, H.-L.**; Huang, C.-C.; Shih, P.-C.; Bow, Y.-R.; Chia, W.-T.; Sung, H.-W. In Situ Nanoreactor for Photosynthesizing H₂ Gas To Mitigate Oxidative Stress in Tissue Inflammation. *J. Am. Chem. Soc.* **2017**, 139 (37), 12923-12926
181. Wang, F.-S.; Wang, T.-F.; Lu, H.-H.; Ao-Ieong, W.-S.; Wang, J.; **Chen, H.-L.***; Peng, C.-H.* Highly Stretchable Free-Standing Poly(acrylic acid)-block-poly(vinyl alcohol) Films Obtained from Cobalt-Mediated Radical Polymerization. *Macromolecules* **2017**, 50 (16), 6054-6063