

Haris Retsos, MSc, PhD

- *Science, Technology & Engineering of Art Materials – STEAM Lab-*
- *Project Management*

Dept. of Fine Arts, Athens School of Fine Arts

Permanent Experimental Teaching Personnel

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- ASFA's "Focal Point", Greek Universities Network for the Sustainable Development (2022 -)
- Senate Member of ASFA, (2019 – 20212)

Areas of Scientific Interest

Art Materials and Properties, Environmental Sustainability in Art Exhibitions, Sustainable Development, Surface and Interfacial Properties, Thin Films, Responsive Materials, Polymer Adhesion, Aging and fracture of Organic Materials, Polymer Mixture, Nanocomposites

EDUCATION

PhD, Department of Physics, University of Crete (1996 - 2001)

MSc, Department of Physics, University of Crete (1994 - 1996)

Bc, Department of Physics, University of Crete (1989 - 1994)

Seminars

- Funding tools and Mechanisms of EU and other International Organisations, European Public Law Organisation
- Negotiation in Practice, National Centre for Public Administration and Local Government
- Development of Human Resources, National Centre for Public Administration and Local Government
- Principles and Practices of Human Resource Management in Public Sector, National Centre for Public Administration and Local Government

SUMMARY OF SCIENTIFIC - RESEARCH WORK

Overview of Scientific Publications:

23 scientific articles - References: 661 – Scopus 7/2022

h - index: 12 i - index: 10

Participation in Scientific Conferences: 32

Member in National Scientific Committees & Work Groups

Coordinator, Ministry of Education, "Analysis and Documentation of quantitative and qualitative indices in Greek Education". (ΑΔΑ: Ω8ΨΙ4653ΠΣ-3ΤΛ, 12-04-2016).

Coordinator and National Expert, Ministry of Education, "Economic Analysis of the Greek Educational System". (ΦΕΚ: 173/ΥΟΔΔ/12-3-2017).

Expert, Ministry of Education, "Analysis and Policy Making of Structural Funds Direction for ESPA 2021-2027 on the topics of Greek Ministry of Education". (ΑΔΑ: ΩΔΦΕ4653ΠΣ-4Ο6, 17-10-2019).

Participation in Scientific - Research Funded Programs

Coordinator and Strategic Expert, (9/2022 – 12/2023)

"Support of the ASFA Strategic Committee", NSRF (ESPA) 2014-2020.

Coordinator and Work Group Member, (7/2022 – 12/2023)

"Digital transformation and enhancement of the Athens School of Fine Arts' Cultural Reserve, 1837 - 2021", NSRF (ESPA) 2014-2020.

Coordinator and STEAM Expert, (9/2021 – 12/2023)

"Didactic of Fresco for Children / The Greek Painting Tradition in Secondary Education Context", Hellenic Foundation for Research and Innovation.

Coordinator and STEAM Expert, (3/2020 – 8/2023)

“Conservation, Restoration, Sustainability and Promotion of the ASFA Art Collection”, EPA 2021-2024 Ministry of Education Development Funds.

Scientific Responsible, (4/2018 – 12/2023)

“Support actions for the Management Structure of the Athens School of Fine Arts, ELKE”, ESPA 2014-2020.

Coordinator and Work Group Member, (2019 – 2022)

- “Art Exhibition of ASFA’s Collection in EΥΔ ΕΠΙΧΡΗΜΑΤΟΔΟΤΗΣΗΣ for the 60 years of the European Social Fund”, 2019
- “Art Exhibition of ASFA’s Collection at the Ministry of Financial Development for the 30 years of Cohesion Policies in EU”, 2020
- “Art Exhibition of ASFA’s Collection in Ministry of Migration & Asylum - Art without Borders”, 2021
- “Art Exhibition of ASFA’s Collection in Independent Authority of Public Income”, 2022

WORK EXPERIENCE

Experimental Teaching Personnel (10/2017 - Now)

Materials Science & Technology, Project Management
Dept. of Fine Arts, Athens School of Fine Arts

Executive Scientific Staff (1/2015 - 10/2017)

Physical Sciences and Exams Process towards Higher Education, Project Management
National Exams Organization – Independent Authority, Ministry of Education

Project Manager (1/2014 – 1/2015)

Process and Management of innovation projects of NSRF 2007-2013
Managing Authority - National Strategic Reference Framework, Ministry of Education

Administrative Associate Personnel (7/2009 – 12/2013)

Management of Human Resources for Public Sector Secondary Education, Hiring of new teachers
Ministry of Education

Public Secondary Education Teacher (9/2008 – 6/2009)

1st Technical High School of Chios
Ministry of Education

Research Associate (2/2007 - 7/2008)

Department of Material Science & Engineering,
Cornell University, Ithaca, New York, USA

Research Associate (4/2004 - 8/2006)

Physico-Chimie des Polymeres et des Milieux Disperses, UMR 761
Ecole Supérieure de Physique et de Chimie Industrielles, Paris, France

Postdoctoral Researcher, (3/2003 – 3/2004)

Institut de Biologie Structurale
Commissariat à l'Energie Atomique, Grenoble, France

Postdoctoral Researcher, (8/2001 – 8/2002)

Department of Materials,
University of California Santa Barbara, California, USA

Doctoral Researcher, (1/1999 - 6/2001)

Institute of Electronic Structure & Laser,
Foundation for Research & Technology - Hellas

PUBLISHED WORK

A. ARTICLES

1. S. H. Anastasiadis, H. Retsos, C. Toprakcioglu, A. Menelle, G. Hadziioannou, On the Interfacial Width in Triblock versus Diblock Copolymers: A Neutron Reflectivity Investigation. *Macromolecules* (1998), 31(19), 6600-6604.
2. H. Retsos, I. Margiolaki, A. Messaritaki, S. H. Anastasiadis, Interfacial tension in binary polymer blends in the presence of block copolymers: effects of additive MW. *Macromolecules* (2001), 34(15), 5295-5305.
3. H. Retsos, A. F. Terzis, S. H. Anastasiadis, D. L. Anastassopoulos, C. Toprakcioglu, D. N. Theodorou, G. S. Smith, A. Menelle, R. E. Gill, G. Hadziioannou, Y. Gallot, Mushrooms and Brushes in Thin Films of Diblock Copolymer/Homopolymer Mixtures. *Macromolecules* (2002), 35(3), 1116-1132.
4. S. H. Anastasiadis, H. Retsos, S. Pispas, N. Hadjichristidis, S. Noephytides, “Smart” Polymer Surfaces. *Macromolecules* (2003), 36(6), 1994-1999.
5. H. Retsos, S. H. Anastasiadis, S. Pispas, J. W. Mays N. Hadjichristidis, Interfacial tension in binary polymer blends in the presence of block copolymers: effects of additive Composition & Architecture. *Macromolecules* (2004), 37(2), 524-537.
6. T. Tang, C.Y. Hui, H. Retsos, E. J. Kramer, Characterization of a fracture specimen for crack growth in epoxy due to thermal fatigue. *Engineering Fracture Mechanics* (2005), 72(5), 791-805.

7. H. Retsos, G. Gorodyska, A. Kiri, M. Stamm, C. Creton, Adhesion between chemically heterogeneous switchable polymeric brushes and an elastomeric adhesive, *Langmuir* (2005), 21(17), 7722-7725.
8. H. Retsos, A. Kiri, V. Senkovskyy, M. Stamm, M. Feldstein, C. Creton, Controlling tack with Bicomponent Polymer Brushes, *Advanced Materials* (2006), 18(19), 2624-2628.
9. W. Xu, S. Raychowdhury, D.D. Jiang, H. Retsos, E.P. Giannelis, Dramatic Improvements Toughness in Poly(lactide-co- glycolide), PLG, Nanocomposites, *SMALL*, (2008) 4(5), 662-669.
10. H. Retsos, D. Lee, M.-Y. Lim, J.-C. Lee, K. Char, C. Creton, A Side-Chain Liquid Crystalline Polymer as a Non-Stick Surface: Aging of the Adhesive Properties, *Langmuir* 24(18), 10169-10173, SEP 16 2008.
11. J. Carretero-González, H Retsos, R. Verdejo, S. Toki, B.S. Hsiao, E.P. Giannelis, M.A. López-Manchado, Effect of Nanoclay on Natural Rubber Microstructure, *Macromolecules*, 41(18), 6763-6772, SEP 23 2008.
12. K. Chrissopoulou, I. Altintzi, I. Andrianaki, R. Shemesh, H. Retsos, E. P. Giannelis, S. H. Anastasiadis, Compatibilization and Optimization of the Structure in PP / Layered Silicate Nanocomposites, *Journal of Polymer Science, Part B: Polymer Physics*, 41(18), 6763-6772, SEP 23 2008.
13. F. Deplace, C. Carelli, S. Mariot, H. Retsos, A. Chateauminois, K. Ouzineb, & C. Creton, Fine Tuning the Adhesive Properties of a Soft Nanostructured Adhesive with Rheological Measurements, *The Journal of Adhesion*, 2009, 8, 18–54.
14. J. Carretero-González, H. Retsos, E.P. Giannelis, T.A. Ezquerro, M. Hernández, M.A. López-Manchado, Miscibility–Dispersion, Interfacial Strength and Nanoclay Mobility Relationships in Polymer Nanocomposites, *Journal of Soft Matter*, (invited), 5, 3481-3486, 2009

B. BOOK CHAPTERS

1. H. Retsos, K. Papanikolopoulou, C. Filippini, C. Riekel, K. H. Gardner, T. Forsyth, A. Mitraki, Amyloid character of self-assembling proteins based on adenovirus fiber shaft sequences: a fibrous biomaterial revisited, *Nanobiotechnology* (2005), 1(3), 219-226.

C. CONFERENCE PROCEEDINGS

1. H. Retsos, S. H. Anastasiadis and K. Kunz
Investigation of Thin Polymer Films by Neutron Reflectivity and Nuclear Reaction Analysis, 4th Panhellenic Polymer Conference Proceedings, p. 97, 1997
2. S. H. Anastasiadis, H. Retsos, K. Kunz, C. Toprakcioglu, G. Smith, G. Hadziioannou, R. Gill and M. Stamm, Polymer Brushes and Mushrooms in Polymeric Matrices. *Polym. Prepr., Amer. Chem. Soc., Div. Polym. Chem.* 40(2), 116 (1999)
3. S. H. Anastasiadis and H. Retsos
Effects of Copolymeric Additives on the Interfacial Behavior in Polymer Blends, 2nd Panhellenic Chemical Engineering Scientific Conference Proceedings, p. 765, 1999
4. M. I. Lygeraki, H. G. Retsos, S. H. Anastasiadis, C. Toprakcioglu and A. A. Vradis
Investigation of Buried Interfaces via the Improvement of the X-ray Reflectivity Technique, 4th Panhellenic Chemical Engineering Scientific Conference Proceedings, p. 325, 2003
5. H. Retsos, G. Gorodyska, A. Kiri, M. Stamm, C. Creton, Tuning Adhesion with Bicomponent Polymeric Brushes, *Polym. Prepr., Amer. Chem. Soc., Div. Polym. Chem.* (2005), 46(1), 492
6. H. Retsos, R. Schach, C. Creton, G. Gorodyska, A. Kiri, M. Stamm
Reversible adhesion between chemically heterogeneous switchable polymeric brushes and an elastomeric adhesive, World Polymer Congress MACRO 2004, 40th International Symposium on Macromolecules, Paris, 2004
7. J. Fang, H. Retsos, R. Rodriguez, E.P. Giannelis, Liquid-like Nanoparticles in Solid Polymer Matrices, *PMSE Preprints* 101 (2009): 896-897.
8. Charalampos Giannakopoulos, Haris Retsos, "Parameterization Reduction of pupils maximum number per class in Greek Primary Educational System", **1st International Scientific Conference on Educational Leadership, Effective Management and Ethical Values**, 11/2017

PARTICIPATION IN SCIENTIFIC CONFERENCES

A. EDUCATIONAL LEADERSHIP, STRATEGY and MANAGEMENT

1. Ch. Giannakopoulos, H. Retsos, "Parameterized Reduction of pupils maximum number per class in Greek Primary Educational System", **1st International Scientific Conference on Educational Leadership, Effective Management and Ethical Values**, 11/2017

B. PHYSICAL SCIENCES

1. H. Retsos, S. H. Anastasiadis and K. Kunz
"Investigation of Thin Polymer Films by Neutron Reflectivity and Nuclear Reaction Analysis"
4th Panhellenic Polymer Conference, November 1997, Patras, Greece
2. S. H. Anastasiadis and H. Retsos
"Compatibilizing Effect of Block Copolymers Added to the Polymer / Polymer Interface: MW Effect"

- General Meeting 1999, American Physical Society**, March 1999, Atlanta, GA, U.S.A.
Bull. Amer. Phys. Soc. 44, 1348 (1999).
3. H. Retsos and S. H. Anastasiadis
"Interfacial Tension in Binary Polymer Blends in the Presence of Block Copolymers: Effects of Additive MW and Architecture",
6th European Symposium on Polymer Blends, May 1999, Mainz, Germany, 6th European Symposium on Polymer Blends Abstracts, p. 32, (1999)
 4. S. H. Anastasiadis and H. Retsos
"Effects of Copolymeric Additives on the Interfacial Behavior in Polymer Blends"
2nd Panhellenic Chemical Engineering Scientific Conference, May 1999, Thessaloniki, Greece
 5. S. H. Anastasiadis, H. Retsos, K. Kunz, C. Toprakcioglu, G. Smith, G. Hadziioannou, R. Gill and M. Stamm (**invited**)
"Polymer Brushes and Mushrooms in Polymeric Matrices"
218th National Meeting, American Chemical Society, August 1999, New Orleans, LA, U.S.A.
Polym. Prepr., Amer. Chem. Soc., Div. Polym. Chem. **40**(2), 116 (1999).
 6. H. Retsos and S. H. Anastasiadis
"Effects of Block Copolymer MW and Architecture on the Interfacial Tension Reduction in Polymer / Polymer Blends",
European Science Foundation Conference on Interfacial Behavior in Polymer and Colloidal Systems, September 1999, Aghia Pelaghia, Crete, Greece
 7. H. Retsos and S. H. Anastasiadis
"Compatibilizing Effect of Block Copolymers Added to the Polymer / Polymer Interface: Effects of Concentration MW Composition and Architecture",
General Meeting 2000, American Physical Society, March 2000, Mineapolis, U.S.A., Bull. Amer. Phys. Soc. **45**, 516 (2000).
 8. A. Terzis, D. N. Theodorou, C. Toprackioglu, H. Retsos, S. H. Anastasiadis, G. Smith, A. Menelle, Y. Gallot, G. Hadziioannou
"Brushes and Mushrooms in Diblock Copolymer / Homopolymer Mixtures"
General Meeting 2000, American Physical Society, March 2000, Mineapolis, U.S.A. Bull. Amer. Phys. Soc. 45, 559 (2000).
 9. H. Retsos and S. H. Anastasiadis (**invited**)
"Block Copolymers Added to the Polymer / Polymer Interface: Effects of Additive MW, Architecture, and Composition",
COST P1 Workshop on "Soft Condensed Matter, September 2000, Patras, Greece
 10. M. Lygeraki, H. Retsos, S. H. Anastasiadis, C. Toprackioglu, A. Vradis
"Enhancement of X-Ray reflectometry for depth profiling using polymer substrates"
Euroconference on Chains @ Interfaces 2001, January 2001, Évora, Portugal
 11. H. Retsos, S. H. Anastasiadis, S. Pispas, N. Hadjichristidis, S. Neophytides
"Smart Polymer Surfaces"
General Meeting 2001, American Physical Society, March 2001, Seattle, U.S.A.
Bull. Amer. Phys. Soc. 46, 495 (2001).
 12. S. H. Anastasiadis and H. Retsos
"Block Copolymers as Emulsifiers in Homopolymer Blends: Effects of Additive MW, Architecture, and Composition", **HSR 2001, 3rd International Meeting of the Hellenic Society of Rheology**, June 2001, Patras, Greece
 13. M. I. Lygeraki, H. Retsos, S. H. Anastasiadis, C. Toprakcioglu and A. A. Vradis
"Depth Profiling by Enhancement of X-ray Reflectometry using Polymer Substrates"
European Science Foundation Conference on Interfaces and Thin Films of Polymers and Colloidal Systems, September 2001, Acquafredda di Maratea, near Naples, Italy
 14. H. Retsos, S. H. Anastasiadis, S. Pispas, N. Hadjichristidis, S. Neophytides
"Development of Smart Polymer Surfaces"
Fall Meeting 2001, Materials Research Society, November 2001, Boston, U.S.A.
 15. S. Kemides, D. Vassou, G. Crissikos, V. Gionis, H. Retsos, M. Lygeraki and S. H. Anastasiadis
"Characterization of Polymer Surfaces and Interfaces by FT-Surface Enhanced Raman Scattering"
5th Panhellenic Polymer Conference, December 2001, Heraklion Crete, Greece
 16. H. Retsos, E. J. Kramer, C. Y. Hui, M. Sivasambu
"Method of Assessing Crack Growth in Epoxy due to Hydrothermal Fatigue"
General Meeting 2002, American Physical Society, March 2002, Indianapolis, U.S.A.
 17. M. Lygeraki, H. Retsos, S. H. Anastasiadis, C. Toprakcioglu and A. A. Vradis
"Depth Polymer Profiling by Enhancement of X-ray Reflectometry"
XVIII Panhellenic Conference on Solid State Physics & Materials Science, September 2002, Heraklion, Greece.
 18. M. I. Lygeraki, H. Retsos, S. H. Anastasiadis, C. Toprakcioglu and A. A. Vradis
"Investigation of Buried Interfaces via the Improvement of the X-ray Reflectivity Technique"
4th Panhellenic Chemical Engineering Scientific Conference Proceedings, p.325, 2003
 19. H. Retsos, R. Schach, C. Creton, G. Gorodyska, A. Kiriy, M. Stamm
"Reversible adhesion between chemically heterogeneous switchable polymeric brushes and an elastomeric adhesive"
World Polymer Congress MACRO 2004, 40th International Symposium on Macromolecules, Paris, 2004
 20. M. I. Lygeraki, H. Retsos, S. H. Anastasiadis, G. Hadziioannou, S. Pispas, N. Hadjichristidis, J.W. Mays, " Interfacial partitioning of block copolymers as a function of their length ratios", **European Science Foundation Conference on**

Interfaces and Colloidal Systems: Structure and Dynamics of Polymers and Colloidal Systems, September 2004, Giens, France

21. H. Retsos, G. Gorodyska, A. Kiriy, M. Stamm, C. Creton (**invited**)
"Tuning Adhesion with Bicomponent Polymeric Brushes", **229th National Meeting, American Chemical Society**, March 2005, San Diego CA, U.S.A. , Polym. Prepr., Amer. Chem. Soc., Div. Polym. Chem. (2005), 46(1), 492
22. H. Retsos, G. Gorodyska, A. Kiriy, M. Stamm, C. Creton
"Switchable Adhesion from Bicomponent Polymeric Brushes", **General Meeting 2005, American Physical Society, March 2005**, Los Angeles CA, U.S.A.
23. M. I. Lygeraki, H. Retsos, S. H. Anastasiadis, C. Toprakcioglu and A. A. Vradis
"Enhancement of X-ray Reflectometry for the Depth-Profiling of Polymer Films using Polymeric Substrates", **General Meeting 2006, American Physical Society, March 2006**, Baltimore MD, U.S.A
24. H. Retsos, D. Lee, C. Creton, K. Char
"Modified Side-Chain Liquid Crystalline Polymer Thin Films as low Adhesion Surfaces", **General Meeting 2006, American Physical Society, March 2006**, Baltimore MD, U.S.A
25. H. Retsos, Y. Tran, G. Gorodyska, A. Kiriy, M. Stamm, C. Creton
"Switchable Adhesion Properties from Low and High T_g Polymeric Brushes", **General Meeting 2006, American Physical Society, March 2006**, Baltimore MD, U.S.A.
26. F. Déplace, C. Carelli, S. Mariot, H. Retsos, C. Creton, K. Ouzineb, O. Dupont, J. Keddie, C. Lei, "Designed Nanoscale Heterogeneities for Controlling Water-Borne Pressure-Sensitive Adhesive Performance", **3rd World Congress on Adhesion and Related Phenomena**, October 2006, Beijing, PR China.
27. H. Retsos and E P. Giannelis, "Biodegradable Polymer Nanocomposites", **Advanced Composite Technology, Long Island Forum for Technology (LIFT)**, January 2008, Hofstra University, Hempstead, NY, U.S.A. (**invited**)
28. H. Retsos, W. Xu, S. Raychowdhury, D.D. Jiang, & E P. Giannelis, "Spectacular Improvements in Toughness of Poly(lactide-co- glycolide), PLG, Nanocomposites", **General Meeting 2008, American Physical Society**, March 2008, New Orleans LU, U.S.A.
29. H. Retsos, J. Carretero-González, M.A. López-Manchado and E. P. Giannelis, "NATURAL RUBBER - LAYERED SILICATES NANOCOMPOSITES: Mechanical Properties, Structure & Dynamics", **General Meeting 2008, American Physical Society**, March 2008, New Orleans LU, U.S.A
30. J. Fang, R. Rodriguez, H. Retsos and E P. Giannelis, "Bulk and Thin Films Properties of Ionic Nanoparticle Fluids", **General Meeting 2008, American Physical Society**, March 2008, New Orleans LU, U.S.A.
31. L. Vo, H. Retsos and E P. Giannelis, "Effect of Copolymer-Nanoclay Interactions on Intercalation Kinetics", **General Meeting 2009, American Physical Society**, March 2009, Pittsburgh, Pennsylvania, U.S.A.