

Curriculum Vitae

Name: SOLON

Surname: ECONOMOPOULOS

Occupation: Chemist

Date of Birth: June 19, 1976

Place of Birth: Heraclion, Crete, Hellas

E-mail : economop@eie.gr

Address : 5, Gali St, Heraclion, Crete, Hellas, 71306

Phone No (cell) : (0030)6972773645

Education

- 1996 – 2001 BSc degree

Chemistry Department, University of Patras, Hellas

- 1999 – 2001 Diploma thesis under the supervision of Assoc Prof. Christos Kordulis, dealing with the synthesis and catalytic evaluation of desulphurization Cobalt-Molybdenum (CoMo) and Tungsten Cobalt-Molybdenum (W-CoMo) catalysts on Alumina (Al₂O₃) substrate.

Chemistry Department, University of Patras, Hellas

- 2001-2006 Doctorate Degree: Ph.D. Thesis under the supervision of Prof. Joannis Kallitsis in polymer science entitled: “Synthesis, morphological study and characterization of optoelectronic properties of semiconducting polymers”.

Chemistry Department, University of Patras, Hellas.

Institute of Chemical Engineering and High Temperature Processes.

F.O.R.T.H.-I.C.E.H.T.

Foreign Languages

English : Certificate of Proficiency in English (1992)

French : Certificat de langue Française (1991)

Teaching Experience

Participation in the training of undergraduate students in the laboratories of «Analytical Chemistry» (2002-2005), the laboratory of « Industrial Processes » (2006), the laboratory of « Polymer Science » (2005), as well as the training of postgraduate students of the “Polymer Science and Technology Programme” in the laboratory of « Polymer Characterization » (2005).

Research Activities

- Synthesis of monomers and small organic molecules, incorporating quinoline, thiophene, fluorene and/or anthracene moieties.**
- Polymerization of monomers using Free Radical Polymerization and Atom Transfer Radical Polymerization (ATRP).**
- Characterization of monomers and polymers using ^1H NMR, FTIR, UV-Vis, PL Spectroscopy and DSC.**
- Thin film morphological study of pristine polymers and various polymer blends using Atomic Force Microscopy (AFM) and Scanning Electron Microscopy (SEM).**
- Electrochemical characterization of monomers and polymers using Cyclic Voltammetry (CV) to determine their Electron Affinity (LUMO) and Ionization Potential (HOMO).**
- Organic/Polymer Photovoltaic Device fabrication and efficiency measurements via spin casting polymer solution onto glass/ITO substrate and subsequent evaporation of thin Aluminum layer as the cathode electrode.**

Previous experience

Quality Control in Megaplast S.A. Heralion Crete (2007-2008)

Participation in Research Grants

- **2002- 2004**

**“Development of Flexible Photovoltaic Cells” Konarka Technologies,
Lowell MA USA**

- **2003- 2006**

**“Development of Flexible Photovoltaic Cells” Renewable Energy
Sources, Ministry of Development, Hellas**

Other Interests/Hobbies

Computers, Basketball, Music

Publications

- 1. “Synthesis and Optical Properties of New End-Functionalized Polyquinolines”**
Economopoulos, S. P.; Andreopoulou, A. K.; Gregoriou, V. G.; Kallitsis, J. K.
Chemistry of Materials, 17, 1063 (2005)
- 2. “Synthesis and Optical Properties on a Series of Polyethers Incorporating Terfluorene Segments and Methylene Spacers”**
Chochos, C. L.; Papakonstandopoulou, D.; **Economopoulos, S. P.** ; Gregoriou, V.G.; Kallitsis, J. K.
Journal of Macromolecular Science, Part A: Pure and Applied Chemistry, 43, 419 (2006)
- 3. “Bulk Heterojunction Photovoltaic Cells From Polymer Mixtures With Soluble Oxadiazole and Quinoline Polymers as Electron Acceptors”**
Economopoulos, S. P.; Chochos, C. L.; Govaris, G. K.; Yiannoulis, P.; Kallitsis, J. K.; Gregoriou, V. G. in *Materials for Photovoltaics*, edited by Michael Durstock, Daniel Friedman, Russell Gaudiana, and Angus Rockett
Mater. Res. Soc. Symp. Proc. 2005, 836, L5.16.
- 4. “Synthesis and Characterization of Conjugated Polymers and Their Blends for Optoelectronic Applications”**
Economopoulos, S. P.; Govaris, G. K.; Chochos, C. L.; Andreopoulou, A. K. ; Tzanetos, N. P.; Kallitsis, J. K.; Yiannoulis, P.; Gregoriou, V. G.
Macromolecular Symposia, 205, 19 (2004)
- 5. “Synthesis of Soluble Main - Chain Poly(Quinolines)”**
Economopoulos, S. P.; Andreopoulou, A. K.; Gregoriou, V. G.; Kallitsis, J. K.

Journal of Macromolecular Science, Part A: Pure and Applied Chemistry, 43, 977 (2006)

6. “Synthesis and Characterization of New Rod-Coil Block and Random Copolymers Combining Terfluorene Segments and Hole or Electron Transporting Moieties”

Chochos, C. L.; Tzanetos, N. P.; **Economopoulos, S. P.**; Gregoriou, V. G.; Kallitsis, J. K.

Journal of Macromolecular Science, Part A: Pure and Applied Chemistry, 44, 923 (2007)

7. “Novel brush-type copolymers bearing thiophene backbone and side chain quinoline blocks. Synthesis and their use as a compatibilizer in thiophene-quinoline polymer blends”

Economopoulos, S. P.; Chochos, C. L.; Gregoriou, V. G.; Kallitsis, J. K.; Barrau, S.; Hadziioannou, G.

Macromolecules, 40 (4), 921 (2007)

8. “Synthesis of a Soluble n-Type Cyano Substituted Polythiophene Derivative: A Potential Electron Acceptor in Polymeric Solar Cells”.

Christos L. Chochos, **Solon P. Economopoulos**, Valadoula Deimede, Vasilis G. Gregoriou, Matthew T. Lloyd, George G. Malliaras, and Joannis K. Kallitsis

J. Phys. Chem. C., 111(28), 10732 (2007).

9. “New Rod – Coil Block Copolymers Consisting of Terfluorene Segments and Electron Transporting Units as the Flexible Blocks”

Christos L. Chochos, Nikos P. Tzanetos, **Solon P. Economopoulos**, Vasilis G. Gregoriou and Joannis K. Kallitsis

European Polymer Journal, 43 (12), 5065, (2007)

Participations in Conferences

1 “Synthesis and Characterization of Conjugated Polymers and Their Mixtures for Opto-electronic Applications”

Gregoriou, V. G.; **Economopoulos, S. P.**; Govaris, G. K.; Chochos, C. L.; Andreopoulou, K.; Kallitsis, J. K.; Yiannoulis, P.,
1st National Plastics Conference,
Athens, Greece. March 2003.

2 “Synthesis and Characterization of Conjugated Polymers and Their Mixtures for Opto-electronic Applications”

Gregoriou, V. G.; Govaris, G. K.; Chochos, C. L.; **Economopoulos, S. P.**; Andreopoulou, K.; Kallitsis, J. K.; Yiannoulis, P.,
4th Greek National Chemical Engineering Conference,
Patras, Greece. May 2003.

3 “Synthesis and Characterization of Conjugated Polymers and their Blends for Optoelectronic Applications”

Economopoulos, S. P.; Govaris, G. K.; Chochos, C. L.; Andreopoulou, A. K.; Tzanetos, N.; Kallitsis, J. K.; Yiannoulis, P.; Gregoriou, V. G.,
15th European Symposium on Polymer Spectroscopy ESOPS 15,
Heraklion, Greece. June 2003.

4 “Characterization of conjugated polymers and their blends for use in flexible photovoltaic cells”

Gregoriou, V. G.; **Economopoulos, S. P.**; Govaris, G. K.; Chochos, C. L.; Andreopoulou, A. K.; Tzanetos, N.; Kallitsis, J. K.; Yiannoulis, P.,
Pittsburgh Conference in Analytical Chemistry and Applied Spectroscopy,
Chicago, IL, USA. March 2004.

5 “Bulk Heterojunction Photovoltaic Cells From Polymer Mixtures and Copolymers Utilizing Oxadiazoles and Quinolines as Electron Acceptors”

Gregoriou, V. G.; Chochos, C. L.; **Economopoulos, S. P.**; Govaris, G. K.; Andreopoulou, A. K.; Tzanetos, N. P.; Deimede, V.; Kallitsis, J. K.; Yiannoulis, P.,

6th International Symposium on Functional pi-Electron Systems,
Cornell, NY, USA. June 2004.

6 “Polymer blends for Use in Plastic Photovoltaic Cells; Study and Correlation between Morphology and Efficiency”

Economopoulos, S. P.; Chochos, C. L.; Govaris, G. K.; Andreopoulou, K.; Mouzakis, D. E.; Yiannoulis, P.; Kallitsis, J. K.; Gregoriou, V. G.,
5th Greek National Chemical Engineering Conference,
Thessaloniki, Greece. May 2005.

7 “Bulk Heterojunction Polymer blends for use in Plastic Photovoltaic Cells. Study and Correlation of the Observed Morphology and the Energy Efficiency of the Photovoltaic Devices ”

Economopoulos, S. P.; Chochos, C. L.; Govaris, G. K.; Andreopoulou, K.; Mouzakis, D. E.; Yiannoulis, P.; Kallitsis, J. K.; Gregoriou, V. G.
2nd National Plastics Conference,
Athens, Greece. March 2005.

8 “Synthesis and Spectroscopic Characterization of Stable Blue Emitters Based on Rod-Coil Block Copolymers Incorporating Terfluorene Segments for PLED applications”

Chochos, C. L.; Tzanetos, N. P.; **Economopoulos, S. P.**; Kallitsis, J. K.; Gregoriou, V. G.,
16th European Symposium on Polymer Spectroscopy ESOPS 16,
Kerkrade, the Netherlands. May 2005.

9 “Bulk Heterojunction Photovoltaic Cells from Polymer Mixtures with Soluble Oxadiazole and Quinoline Polymers as Electron Acceptors”

Economopoulos, S. P.; Chochos, C. L.; Govaris, G. K.; Yiannoulis, P.; Kallitsis, J. K.; Gregoriou, V. G.,
16th European Symposium on Polymer Spectroscopy ESOPS 16,

Kerkrade, the Netherlands. May 2005.

10 “Synthesis and Characterization of Conjugated Polymers and their Blends for Optoelectronic Applications”

Economopoulos, S. P.; Govaris, G. K.; Chochos, C. L.; Andreopoulou, K.; Yiannoulis, P.; Kallitsis, J. K.; Gregoriou, V. G.

19^o Panhellenic Chemistry Conference

Crete, November 2002