

簡歷

游淑薰 1972 年靜宜文理學院化學系畢業。擔任台大生物化學研究所研究助理兩年。於 1974 年出國, 1976 年紐約市立大學高分子化學博士, 1982 年畢業。

同年(1982)服務美國工業界 Johnson & Johnson., Hoechst-Roussel Pharmaceutical Inc., 及 GAF/ISP (International Specialty Products Corp.) 三大公司達 17 年。其間先後申請美國專利, 大部份屬新化學物質的發現與合成, 小部份屬製程改革及合成物質的應用。1999 年轉入學術界, 任教於紐約華格納學院, 教有機化學, 生物化學及普通化學, 達三年半。2002 年辭去紐約華格納學院教職返台, 任職科技公司的專案經理二年, 研發生產 LED/LCD 平面顯示器及製造光學擴散片。又在中正大學兼課, 任教有機化學達五年。2004 年至今於中研院基因體研究中心擔任博士後研究學者, 致力於與生物有關奈米薄膜材料, 如醣晶片的開發, 且將研究成果發表成文獻數篇及美國專利一篇。總計至今已發表文獻 28 篇, 美國專利 30 篇。其中美國專利 USP 5, 274, 120 (issued Dec. 28, 1993) 相關的研發成果 於 1996-1998 年間參與團隊, 將其商業化, 成為數項用於醫藥及食品的產品。

生活理念

- “培養獨立思考的能力與終生學習的習慣”
- “把未來投資在自己的家鄉”

英文履歷/發表文獻

游淑薰

Susan Yu Tseng, Ph. D.

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- Summary**
- * PD Research Fellow at the Genomics Research Center/Academia Sinica, Taipei, Taiwan
 - * Associate Professor taught Organic Chemistry at the Department of Life Science and Institute of Molecular Biology, National Chung-Cheng University.
 - * Full-time Associate Professor at Wagner College, Staten Island, New York USA taught Organic and Biochemistry courses,
 - * 17 years of industrial experience in New York/New Jersey, USA.
 - * 58 publications including 28 journal article and 30 US Patents
- Education**
- BS Chemistry Providence College Taichung, Taiwan 1972
 - M.A., Polymer Chemistry, the College of Staten Island (CUNY), 1979.
 - Ph. D. Polymer Chemistry, The City College, City University of New York (CUNY), 1982.
 - Executive MBA, Wagner College, Staten Island, New York, 1996.
- Experiences** **Johnson & Johnson Baby Product Company. Skillman, New Jersey 1982 - 1987**
Associate Research Scientist Polyelectrolyte acrylic polymer synthesis and characterizations.

Hoechst-Roussel Pharmaceutical Inc., Somerville, New Jersey 1987 – 1990
Senior Research Pharmacist In the Pharmaceuticals Division worked on transdermal diabetic drug delivery system dosage form design using active ingredient HOE 498.

GAF/ISP (International Specialty Products Corp.), Wayne, NJ July 1990 – Dec. 1998
Research Chemist (1990 – 1993) Led technicians conducted and completed a customer-oriented R & D research project. Identified critical process variables. Discovered and patented the chemical structure of the crosslinker, Ethylidene vinylpyrrolidone.

Senior Research Chemist (1993 – 1995) R & D Representative for Product/Process Improvement Team for new product/process commercialization. Partnership with Manufacture Production Engineers/Process Research Engineers, Production Foreman, Operator and Chemists in Production Quality Assurance to implement the process changes, product consistency, and product property improvement.

Research Scientist (1995 – 1998): Worked in acetylene business, vinylpyrrolidone chemistry, linear and crosslinked Polyvinylpyrrolidone synthesis and applications. Represented the R & D for new product commercialization Gateway Teams.

Associate Professor – Wagner College, Staten Island, New York
May 1999 – Aug. 2002

Taught Organic Chemistry (211 & 212) Biochemistry (Chem. 312) every semester. Supervised chemistry students for their research projects; Served in the Committee of Wagner College Premedical Program; Provided career guidance for senior science major students.

Special Account Project Manager – GMK Technology Corp., Tainan, Taiwan
Sept. 2002 – Oct. 2004

Marketing /technical support and production operation management for the manufactured products, optical diffusion films.

Associate Professor (part time) – The National Chung-Cheng University, Chia-Yi Taiwan Jan. 2003 – 2008

Teaching Organic Chemistry (I & II) in the Department of Life Science and Institute of Molecular Biology.

Post Doctor Research Fellow – The Genomic Research Center, Academia Sinica, Taipei, Taiwan Dec. 2004 – Dec. 2010

Surface-grafting of oligosaccharides – investigate effective glycan micro array system. Surface-grafted polypeptide – fabricate bioorganic nano-membrane material in nano level

thickness on activated surfaces like silicon, quartz, glass, or aluminum, gold. Investigate/observe the structure-properties and interface changes of such prepared biocompatible surface materials for biological/biochemical applications such as cell culture, bioassay, cell-surfaces interactions, and cell-cell recognitions. The analytical instrumental analyses involved are Ellipsometry, Contact Angles, Optical Microscopy, CD, ATR/FTIR, AFM, TOF-MALDI Mass Spectroscopy, and Micro Array & Fluorescence Chip-reader, etc.

- Award** American Chemical Society (ACS) Industrial Sponsors Award Nominee 2001 &2002
Wagner College Faculty Aid Award, 2001.
ISP Patent Award 1996
ISP Patent Award 1997
GMK Technologies Corp. superb annual bonus.
- Affiliation** American Chemical Society (ACS) Member.
Chair of American Chemical Society (ACS), New York Section, Staten Island Subsection 2001, 2002.
Coordinator of the ACS Chemistry Olympiad, Staten Island Local Competition Association 2000 -2002
Treasurer of Our Lay Queen of Peace School Soccer Team.

Publications

Susan Yu Tseng, Ph. D.

1. "Anomeric purities of 2,3/2,6- α -sialyl-5-amino-alpha-pentyl-oxo-galactopyranosides analyzed by High-Throughput Collision-Induced Dissociation Stage-Discriminated Energy-Resolved Mass Spectrometry" Manuscript in revision.
2. "Redox Reaction of C-2 Carbon in Sialic Acid Oligomers observed from MALDI Mass Analysis". Manuscript in revision.
3. "Glycan Array on Aluminum Oxide Coated Glass Slides through Phosphonate Chemistry" Chang, Shih-Huang; Han, Jeng-Liang; **Tseng, Susan Yu**; Lee, Hsin-Yu; Lin, Chin-Wei; Lin, Yu-Chen; Jeng, Wen-Yih; Wang, Andrew; Wu, Chung-Yi; Wong, Chi-Huey* Manuscript Successfully Submitted. *Journal of the American Chemical Society* 132, 13371 – 13380, 2010.
4. "Controlled Molecular Organization of Surface Macromolecular Assemblies Based on Stimuli-Responsive Polypeptide Brushes" Chih-Tsung Yang, Yuli Wang, **Susan Yu**, Ying-Chih Ingrid Chang* *Biomacromolecules* 10, 58-65, 2009.
5. "Glycan Arrays on Aluminum Coated Glass Slides" **Susan Yu Tseng**, Cheng-Chi Wang, Ching-Wei Lin,

- Cheng-Lung Chen, Wen-Yueh Yu, Chung-Hsuan Chen, Chung-Yi Wu, and Chi-Huey Wong* *Chemistry, An Asian Journal* 3(8-9), 1395-1405, 2008.
6. "Desorption Ionization of Biomolecules on Metals" Nien-Yeen Hsu, **Susan Yu Tseng**, Chung-Yi Wu, Chien-Rai Ren, Yuan-Chang Lee, Chi-Huey Wong, and Chung-Hsuan Chen* *Analytical Chemistry* 80, 5203-5210, 2008.
 7. "Polyelectrolyte complexes formed initially by surface tethered cationic poly-L-lysine: Their secondary structures and beyond" **Tseng, Susan Y.**; Wang, Yuli; Chang, Ying-Chih, *PMSE Preprints* (2005), 93 257-258.
 8. "Polyelectrolyte complexes formed initially by surface tethered cationic poly-L-lysine: Their secondary structures and beyond" **Tseng, Susan Y.**; Wang, Yuli; Chang, Ying-Chih, *PMSE* (2005) 164, Abstracts of Papers, 230 ACS National Meeting, Washington, DC, United States, Aug 28-Sept. 1, 2005.
 9. "Nucleation In Popcorn Polymerization of Polyvinylpyrrolidone Induced by Purified N-Vinyl-3 (E)-Ethylidene Pyrrolidone (EVP)" Pothier, Dawn; Gaul, Maryanne; **Tseng, Susan Y.** *Polymer Preprints*, 2002, 43(2), 837-838.
 10. "Nucleation In Popcorn Polymerization of Polyvinylpyrrolidone Induced by Purified N-Vinyl-3 (E)-Ethylidene Pyrrolidone (EVP)" **Tseng, Susan Y.**; Pothier, Dawn; Gaul, Maryanne; Abstracts of Papers, 224th ACS National Meeting, Boston, MA, United States, August 18-22, 2002
 11. "The Synthesis and Chemistry of N-Vinyl-3-Ethylidene-2-Pyrrolidone", **Tseng, Susan Y.**; Wolf, Phillip; Tallon, Michael; Miller, Mark. Abstract Papers, 224th ACS National Meeting, Boston, MA, United States, August 18-22, 2002.
 12. "The Synthesis and Chemistry of N-Vinyl-3-Ethylidene-2-Pyrrolidone", **Tseng, Susan Y.**; Wolf, Phillip F.; Tallon, Michael A.; Miller, Mark. *Polymer Preprints* (American Chemical Society, Division of Polymer Chemistry), 2002, 43 (2), 980-981.
 13. "Ethylidene Vinylpyrrolidone And Its Application in Popcorn Polymerization of Crosslinked Polyvinylpyrrolidone" Tseng, Susan Y. **2002** Industrial Sponsors Award Nominations organized by American Chemical Society Division of Polymer Chemistry (60 pp.)
 14. "The Synthesis and Structure of Ethylidene Vinylpyrrolidone And Its Application in the Polymerization of Vinylpyrrolidone" **Tseng, Susan Y.** **2001** Industrial Sponsors Award Nominations organized by American Chemical Society Division of Polymer Chemistry (50 pp.)
 15. "EVP Chemistry/EVP Induced Hydrogel and Popcorn Polymers of Polyvinylpyrrolidone" **Tseng, Susan Y.** **2002** Poster paper presented at the Gordon Research Conference on "Protein Folding Dynamics" on January 20 –25, 2002.

16. "Ethylidene Vinylpyrrolidone Induced Hydrogel and Popcorn Polymers of Cross-Linked Polyvinylpyrrolidone" Submitted for publication on the Proceedings of The Fourth International Congress of Frontiers Biomedical Polymers in July 2002.
17. "1-Vinyl-3-Ethylidene Pyrrolidone And Its Applications" *Polymer Prints*, pp. 542 – 543, Vol. 42 (2), Aug 2001.
18. "1-Vinyl-3-Ethylidene Pyrrolidone And Its Applications" Tseng, Susan Y.; Tallon, Michael A.; Wolf, Phillip F.; Abstract of Papers, 2001, 222nd ACS National meeting, Chicago, IL, United States, August 26-30, 2001.
19. "Hydrogel and Popcorn Polymers of Crosslinked Polyvinylpyrrolidone" Poster paper presented at The Fourth International Congress of Frontiers Biomedical Polymers in Williamsburg, Virginia on May 16 – 19, 2001.
20. "1-Vinyl-3-Ethylidenepyrrolidone And Its Applications" Poster paper presented at the ACS POLYMILLENNIAL 2000 Conference on December 9 –13 in Waikoloa, Hawaii, Dec. 2000.
21. "The nature of the fold surface of solution-grown 1,4-trans-polybutadiene crystals as determined by carbon-13 NMR" Schilling, Frederic C.; Bovey, Frank A.; Tonelli, Alan E.; **Tseng, Susan**; Woodward, Arthur E. *Polymer Material Science and Engineering*, 1984, 50, 256-60.
22. " A Solid State ¹³C NMR Study of the Fold Surface of Solution-Grown Trans 1,4-Polybutadiene Crystals" Schilling, Frederic C.; Bovey, Frank A.; Tonelli, Alan, E.; **Tseng, Susan**; and Woodward, Arthur E. *Macromolecules*, 1984, 17, (4) 728-33.
23. "Carbon-13 NMR of partially epoxidized trans-poly(1,4-butadiene) crystals" Schilling, F, C.; Bovey, F.A.; **Tseng, S.**; Woodward, A. E.; *Polymer Preprints, (American Chemical Society, Division of Polymer Chemistry)*, 1983, 24(1) 235-6.
24. "¹³C NMR of Partially Epoxidized Trans 1,4-Polybutadiene Crystals" Schilling, Frederic C.; Bovey, Frank A.; **Tseng, Susan**; and Woodward Arthur E; *Macromolecules*, 1983, 16(5) 808-16.
25. "Morphological Study of Trans 1,4-Polybutadiene Crystals Grown from Solution" **Tseng, Susan Yu**; 1983 146 pp. CAN 99: 106014 AN 1983:506014 CAPLUS
26. "Molecular Weight Dependence of Non-Crystalline Component in Dilute Solution-Grown Trans 1,4-Polybutadiene Crystals" **S. Tseng**, W. Herman, and A. E. Woodward; *Macromolecules*, April 1982, 15(2) 338-42.
27. "Crystallization of trans 1,4-Polybutadiene form Concentrated Solutions" **S. Tseng**, and A. E. Woodward; *Macromolecules*, April 1982, 15(2) 343-6.

28. "Preparation of block copolymers by epoxidation of trans-1,4-polybutadiene and trans-1,4-polyisoprene crystals" Woodward, A. E.; Anandakumaran, K.; Kuo, C. C.; **Tseng, S.**, Organic Coatings and Applied Polymer Science Proceedings (1981) 46 82-6.

專利申請

1. "Glycan arrays on PTFE-like aluminum coated glass slides and related methods" WONG, Chi-Huey; (US)., WU, Chung-Yi; **TSENG, Susan Y.** US Patent 12/503/797 Filing Date 7-15-2009
2. "Glycan arrays on PTFE-like aluminum coated glass slides and related methods" Wong Chi-Huey; (US)., WU, Chung-Yi; **TSENG, Susan Y.** [WO/2010/009271](#) Filing Date 7-15-2009
3. USP 6,124,415 Issued Sept. 26, 2000
"Crosslinked Polyvinylpyrrolidone (PVPP) Copolymer of Vinyl Pyrrolidone (VP) and Monomer Derived From 1-Vinyl-3-Ethylidene Pyrrolidone (EVP)"
4. USP 6,011,160 Issued Jan. 4, 2000
"Crosslinked Polyvinylpyrrolidone (PVPP) Copolymer of Vinylpyrrolidone (VP) and Monomer Derived From 1-Vinyl-3-Ethylidene Pyrrolidone (EVP)"
5. USP 5,717,045 Issued Feb. 10, 1998
"Crosslinked Copolymer of Vinylpyrrolidone and Dimethylaminoethyl Methacrylate and Process for Making Same in Aqueous Solution having Desirable Gel Properties".
6. USP 5,716,634 Issued Feb 10, 1998
"Clear, Homogenized, Flowable Hydrogel of Crosslinked N-Vinyl Lactam Polymers."
7. USP 5,717,045 Issued xx xx, 1998
"Hair Preparations Containign Crosslinked Copolymers of Vinyl Pyrrolidone and Deimethylaminoethyl Methacrylate"
8. Docket FDN-2416/2451 Filed Sept. 18, 1997
"Novel Crosslinked Polyvinylpyrrolidone (PVPP) Copolymers".
9. USP 5,672,634 Issued Sept. 30, 1997
"Preparation of Light-weight crosslinked Polyvinylpyrrolidone-Iodine Foam Product".
10. USP 5,654,385 Issued Aug. 5, 1997
"One-Step Process for Making Lightly-Crosslinked Polyvinylpyrrolidone Hydrogel".

11. USP 5,614,583 Issued March 25, 1997
"Homogenized, Flowable Hydrogel of Crosslinked N-Vinyl Lactam Polymers".
12. USP 5,605,685 Issued Feb 25, 1997
"A Non-Irritating Skin and Hair Rejuvenating Composition Having a pH between 1 and 6.5".
13. USP 5,567,786 Issued Oct. 22, 1996
"Polymerizable Composition of Vinylpyrrolidone and Vinyl Caprolactam".
14. USP 5,393,854 Issued Feb 28, 1995
"Colorless, Purified Polymerizable Composition Useful for the Production of Crosslinked Polyvinylpyrrolidone",
15. USP 5,393,825 Issued Feb 28, 1995
"Films and Extrusions of Cured Crosslinked Vinyl Lactam Polymer and Method of Preparation".
16. USP 5,391,668 Issued Feb 21, 1995
"Colorless, Purified Polymerizable Composition Useful for the Production of Crosslinked Polyvinylpyrrolidone".
17. USP 5,362,883 Issued Nov. 8, 1994
"Molded Crosslinked Vinyl Lactam Polymer Gel and Method of Preparation".
18. USP 5,362,796 Issued Nov. 8, 1994
"Molded Crosslinked Transparent Vinyl lactam Polymer Gel and method of preparation"
19. USP 5,354,823 Issued Oct. 11, 1994
"Film and Extrusions of Cured Crosslinked Vinyl Lactam Polymer and Method of Preparation".
20. USP 5,342,964 Issued Aug. 30, 1994
"Process for Obtaining the Isomeric Compound 1-Vinyl-3(E)-Ethylidene Pyrrolidone".
21. USP 5,336,697 Issued Aug. 9, 1994
"Molded Cellular Crosslinked Vinyl Lactam Polymer and Method of Preparation".
22. USP 5,286,876 Issued Feb 15, 1994
"Process for preparing high-purity 1-Vinyl-3(E)-Ethylidenepyrrolidone Monomer"
23. USP 5,286,826 Issued Feb 15, 1994
"Process for Making Highly Crosslinked Polyvinylpyrrolidone Having a Low Swell Volume".
24. "Process for making Highly Crosslinked Poly(vinylpyrrolidone:" Tseng, Susan Y.; PCT Int. Appl. (1994) 12 pp.
CODEN: PIXXD2 WO 9420555 A1 19940915 CAN 123: 144915 AN 1995: 754486 CALPUS

25. "Preparation of 1-Vinyl-3(E)Ethylidene Pyrrolidone for making Crosslinked Polyvinylpyrrolidone" Tseng, Susan Y.; Wolf, Philip F. *PCT Int. appl.* (1995), 14 pp. CODEN: PIXXD2 WO 9420461 A1 19940915 CAN 123: 113119 AN 1995:742568 CAPLUS
26. USP 5,280,049 Issued Jan 18, 1994
"Preparation of Molded Cellular Crosslinked Vinyl Lactam Polymers".
27. USP 5,274,120 Issued Dec. 28, 1993
"Preparation of 1-Vinyl-3(E)Ethylidene Pyrrolidone".
28. USP 5,239,053 Issued Aug 24, 1993
"Purification of Vinyl Lactam Polymers"
29. "Purification of Vinyl Lactam polymers" Tseng, Susan Y.; Mandella, Williaam L.; Smith, Terry E.; Robert B.; Taylor, Paul D.; *PCT Int. Appl.* (1993), 22 pp. CODEN: PIXXD2 WO 9316114 A1 19930819 CAN 120: 135424 AN 1994: 135424 CAPLUS
30. "Relatively Soft Pliable Water-Swellable Polymer" Tseng, Susan; Reilly, Eugene P.; (Weyerhaeuser Co., USA)
PCT Int. Appl. 1990, 55pp. ###