

REFERENCES

- Adams, M. L., Lavasanifar, A. and Kwon, G. S. (2003) Amphiphilic block copolymers for drug delivery. J. Pharm. Sci., 92(7), 1343-1355.
- Aoki, T. and Wakabayashi, M. (1995) Simultaneous flow injection determination of nitrate and nitrite in water by gas-phase chemiluminescence. Anal. Chim. Acta, 308(1), 308-312.
- Ariga, K., Hill, J. P., Lee, M. V., Vinu, A., Charvet, R. and Acharya, S. (2008) Challenges and breakthroughs in recent research on self-assembly. Sci. Technol. Adv. Mater., 9, 14109-14204.
- Astruc, D. and Chardac, F. (2001) Dendritic Catalysts and Dendrimers in Catalysis. Chem. Rev., 101(9), 2991-3024.
- Atwood, J. L. and Steed, J. W. (2003) Encyclopedia of Supramolecular Chemistry, Marcel Dekker, Inc., 2, 1231-1269.
- Barner-Kowollik, C., Davis, T. P., Heuts, J. P. A., Stenzel, M. H., Vana, P. and Whittaker, M. (2003) RAFTing down under: Tales of missing radicals, fancy architectures, and mysterious holes. J. Polym. Sci., Part A: Polym. Chem., 41(3), 365-375.
- Bissell, R. A., Cordova, E., Kaifer, A. E. and Stoddart, J. F. (1994) A chemically and electrochemically switchable molecular shuttle. Nature, 369(3476), 133-137.
- Bergbreiter, D. E., Mariagnanam, V. M. and Zhang, L. (1995) Polymer ligands that can regulate reaction temperature in "smart" catalysts. Adv. Mater., 7(1), 69-71.
- Brondsted, H. and Kopecek, J. (1991) Hydrogels for site-specific oral drug delivery: synthesis and characterization. Biomaterials, 12(6), 584-592.
- Brunsveld, L., Folmer, B. J. B., Meijer, E. W. and Sijbesma, R. P. (2001) Supramolecular Polymers. Chem. Rev., 101(12), 4071-4098.
- Chen, Y., Thakar, R. and Snee, P. T. (2008) Imparting Nanoparticle Function with Size-Controlled Amphiphilic Polymers. J. Am. Chem. Soc., 130(12), 3744-3745.

- Chiefari, J., Chong, Y. K., Ercole, F., Krstina, J., Jeffery, J., Le, T. P. T., Mayadunne, R. T. A., Meijs, G. F., Moad, C. L., Moad, G., Rizzardo, E. and Thang, S. H. (1998) Living Free-Radical Polymerization by Reversible Addition-Fragmentation Chain Transfer: The RAFT Process. Macromolecules, 31(16), 5559-5562.
- Corbellini, F., Knegtel, R. M. A., Grootenhuis, P. D. J., Crego-Calama, M. and Reinhoudt, D. N. (2005) Water-Soluble Molecular Capsules: Self-Assembly and Binding Properties. Chem.-Eur. J., 11(1), 298-307.
- Discher, B. M., Won, Y.-Y., Ege, D. S., Lee, J. C. M., Bates, F. S., Discher, D. E. and Hammer, D. A. (1999) Polymersomes: Tough Vesicles Made from Diblock Copolymers. Science, 284:1143-1146.
- García-Campaña, A. M. and Baeyens, W. R. G. (2000) Principles and recent analytical applications of chemiluminescence. Analisis, 28(8), 686-698.
- Ghosh, S., Irvin, K. and Thayumanavan, S. (2007) Tunable Disassembly of Micelles Using a Redox Trigger. Langmuir, 23(15), 7916-7919.
- Goodwin, A. P., Mynar, J. L., Ma, Y., Fleming, G. R. and Frechet, J. M. J. (2005) Synthetic Micelle Sensitive to IR Light via a Two-Photon Process. J. Am. Chem. Soc., 127(28), 9952-9953.
- Guilbault, G. G. (1990) Practical fluorescence, CRC Press, 805-812.
- Harada, A., Li, J. and Kamachi, M. (1993) Synthesis of a tubular polymer from threaded cyclodextrins. Nature, 364(6347), 516-518.
- Hof, M., Fidler, V. and Hutterer, R. (2005) Basics of Fluorescence Spectroscopy in Biosciences. Fluorescence Spectroscopy in Biology, 3-29.
- Ishida, J., Takada, M., Hara, S., Sasamoto, K., Kina, K. and Yamaguchi, M. (1995) Development of a novel chemiluminescent probe, 4-(5',6'-Dimethoxybenzothiazolyl) phthalhydrazide. Anal. Chim. Acta, 309(1-3), 211-219.
- Jung, H. M., Price, K. E. and McQuade, D. T. (2003) Synthesis and Characterization of Cross-Linked Reverse Micelles. J. Am. Chem. Soc., 125(18), 5351-5355.

- Klein, G., Kaufmann, D., Schürch, S. and Reymond, J.-L. (2001) A fluorescent metal sensor based on macrocyclic chelation. Chem. Commun., (6) 561-562.
- Laobuthee, A., Chirachanchai, S., Ishida, H. and Tashiro, K. (2001) Asymmetric Mono-oxazine: An Inevitable Product from Mannich Reaction of Benzoxazine Dimers. J. Am. Chem. Soc., 123:9947-9955.
- Laobuthee, A., Ishida, H. and Chirachanchai, S. (2003) Metal Ion Guest Responsive Benzoxazine Dimers and Inclusion Phenomena of Cyclic Derivatives. J. Inclusion Phenom. Macrocyclic Chem., 47(3), 179-185.
- Lehn, J.-M. (1988) Supramolecular Chemistry-Scope and Perspectives Molecules, Supermolecules, and Molecular Devices (Nobel Lecture). Angew. Chem., Int. Ed. Engl., 27(1), 89-112.
- Lei, C.-H., Bao, Y.-F., Deng, J.-Q. and Lei, C.-X. (1995) Studies on urea biosensors based on immobilized corynebacterium glutamicum and their kinetic response processes. Talanta, 42(10), 1561-1566.
- Li, J.-L., Bai, R. and Chen, B.-H. (2004) Preconcentration of Phenanthrene from Aqueous Solution by a Slightly Hydrophobic Nonionic Surfactant. Langmuir, 20(14), 6068-6070.
- Li, Y.-Y., Zhang, X.-Z., Cheng, H., Zhu, J.-L., Li, U.-N., Cheng, S.-X. and Zhou, R.-X. (2007) Fluorescent, thermo-responsive biotin-P(NIPAAm-co-NDAPM)-b-PCL micelles for cell-tracking and drug delivery. Nanotechnology, 18(50), 505101-505108.
- Li, Z., Liu, G., Law, S.-J. and Sells, T. (2002) Water-Soluble Fluorescent Diblock Nanospheres. Biomacromolecules, 3(5), 984-990.
- Livoreil, A., Dietrich-Buchecker, C. O. and Sauvage, J.-P. (1994) Electrochemically Triggered Swinging of a [2]-Catenate. J. Am. Chem. Soc., 116(20), 9399-9400.
- Matmour, R., More, A. S., Wadgaonkar, P. P. and Gnanou, Y. (2006) High Performance Poly(styrene-b-diene-b-styrene) Triblock Copolymers from a Hydrocarbon-Soluble and Additive-Free Dicarbanionic Initiator. J. Am. Chem. Soc., 128(25), 8158-8159.

- Moad, G., Rizzardo, E. and Thang, S. H. (2005) Living Radical Polymerization by the RAFT Process. Aust. J. Chem., 58(6), 379-410.
- Pallavicini, P., Diaz-Fernandez, Y. A. and Pasotti, L. (2008) Micelles as nanosized containers for the self-assembly of multicomponent fluorescent sensors. Coord. Chem. Rev., In Press, Corrected Proof.
- Perrier, S. and Takolpuckdee, P. (2005) Macromolecular design via reversible addition-fragmentation chain transfer (RAFT)/xanthates (MADIX) polymerization. J. Polym. Sci., Part A: Polym. Chem., 43(22), 5347-5393.
- Phongtamrug, S., Pulpoka, B. and Chirachanchai, S. (2004) Inclusion Compounds Formed from *N,N*-bis(2-hydroxybenzyl)alkylamine Derivatives and Transition Metal Ions via Molecular Assembly. Supramol. Chem., 16(4), 269 - 278.
- Qin, W., Zhang, Z. and Liu, H. (1997) Chemiluminescence flow sensor for the determination of vitamin B12. Anal. Chim. Acta, 357(1-2), 127-132.
- Quémener, D., Davis, T. P., Barner-Kowollik, C. and Stenzel, M. H. (2006) RAFT and click chemistry: A versatile approach to well-defined block copolymers. Chem. Commun., 5051-5053.
- Sada, K., Sugahara, M., Kato, K. and Miyata, M. (2001) Controlled Expansion of a Molecular Cavity in a Steroid Host Compound. J. Am. Chem. Soc., 123(19), 4386-4392.
- Schilli, C. M., Zhang, M., Rizzardo, E., Thang, S. H., Chong, Y. K., Edwards, K., Karlsson, G. and Muller, A. H. E. (2004) A New Double-Responsive Block Copolymer Synthesized via RAFT Polymerization: Poly(*N*-isopropylacrylamide)-block-poly(acrylic acid). Macromolecules, 37(21), 7861-7866.
- Stenzel, M. H. (2008) RAFT polymerization: an avenue to functional polymeric micelles for drug delivery. Chem. Commun., 3486-3503.
- Tyson, J. F. (1985) Flow Injection techniques Analysis for Atomic-absorption Spectrometry. Analyst, 110(5), 419-430.
- Valcárcel, M., Karlberg, B., Pacey, G. E. and Castro, M. D. L. d. (1989) Flow injection analysis: A practical guide, Elsevier, 365-372.

- Van Duuren, B. L. (1963) Effects of the Environment on the Fluorescence of Aromatic Compounds in Solution. Chem. Rev. 63(4), 325-354.
- Weiss, S. (1999) Fluorescence Spectroscopy of Single Biomolecules. Science, 283, 1676-1683.
- Williams, R. T. and Bridges, J. W. (1964) Fluorescence of solutions: A review. J. clin. Path., 17(4), 371-394.
- Yamaguchi, M., Yoshida, H. and Nohta, H. (2002) Luminol-type chemiluminescence derivatization reagents for liquid chromatography and capillary electrophoresis. J. Chromatogr., A, 950(1-2), 1-19.
- Yanagisawa, M., Tashiro, K., Yamasaki, M. and Aida, T. (2007) Hosting Fullerenes by Dynamic Bond Formation with an Iridium Porphyrin Cyclic Dimer: A "Chemical Friction" for Rotary Guest Motions. J. Am. Chem. Soc., 129(39), 11912-11913.
- Zhang, L. and Eisenberg, A. (1995) Multiple Morphologies of "Crew-Cut" Aggregates of Polystyrene-*b*-poly(acrylic acid) Block Copolymers. Science, 268(5218), 1728-1731.
- Zhang, L. and Eisenberg, A. (1998) Formation of crew-cut aggregates of various morphologies from amphiphilic block copolymers in solution. Polym. Adv. Technol., 9(10-11), 677-699.
- Zhang, Y., Zhu, W., Wang, B., Yu, L. and Ding, J. (2005) Postfabrication encapsulation of model protein drugs in a negatively thermosensitive hydrogel. J. Pharm. Sci., 94(8), 1676-1684.

CURRICULUM VITAE

Name: Natthaporn Suchao-in
Date of Birth: January 26,1983
Nationallity: Thai
Marital Status: Single
Address: 5/90 Centurian Park Condominium Phahol-yotin 7 Road, Soi
Aree5, Samsennai, Phayathai, Bangkok 10400
Mobile: (+668)-9130-7012
Email address: einstein_mint@hotmail.com

University Education:

2004-2009 The Petroleum and Petrochemical College, Chulalongkorn
University, Bangkok, Thailand
Full time graduate of International Master-Philosophy of Doctoral
degree program in Polymer Science Major

2000-2004 Kasetsart University, Bangkok, Thailand
Faculty of Agro-Industry in Physico-Chemical Processing
Technology Major/GPA 3.48



Honors and Scholarships:

1. Best Oral Presentation Award, The RGJ Seminar Series LXII: Advanced Materials, Bangkok, Thailand, August, 7, 2009.
2. Partial Research Grant, The 237th ACS National Meeting, Salt Lake City, UT, USA, The Petroleum and Petrochemical College, Chulalongkorn University (2009)
3. Partial Research Grant, Symposium on Functional Polymer Based Materials, Jena, Germany, The Thailand Research Fund (2007)
4. Master-Ph.D. Scholarship, Royal Golden Jubilee Scholarship (Ph.D. Grant No. PHD/0087/2549) from The Thailand Research Fund (2006-2009)
5. Master Research Grants from The Thailand Research Fund (2004-2006)
6. Full Scholarship Polymer Science Program, The Petroleum and Petrochemical College for M.Sc. Program (2004-2006)
7. Second Class Honor in B.Sc., Faculty of Agro-Industry in Physico-Chemical Processing Technology Major, Kasetsart University (2004)
8. Excellent Study Student, Kasetsart University (2003)

International Publications:

1. Suchao-in, N., Chirachanchai, S., and Perrier, S. (2009) pH- and Thermo- Multi-responsive Fluorescent Micelles from Block Copolymers via Reversible Addition Fragmentation Chain Transfer (RAFT) Polymerization. *Polymer*, 50, 4191-4198.

2. Suchao-in, N., Perrier, S., and Chirachanchai, S. (2009) Control of Block Copolymer Morphology: An Example of Selective Morphology Induced by Self Assembly Formation Condition, *Journal of Polymer Science Part A: Polymer Chemistry*, In Press.
3. Suchao-in, N., Chirachanchai, S., and Perrier, S. pH Sensing Dually Core-Shell Type Fluorescent nanoparticles for Drug Delivery Purpose (To be submitted)

Proceedings:

1. Suchao-in, N., Perrier, S., and Chirachanchai, S. (2009, August 7) Vesicles or Micelles: A Model Case of Dynamic Nanostructure From PNIPAAm-*b*-PDMAEA Block Copolymer. The RGJ Seminar Series LXII: Advanced Materials, Bangkok, Thailand
2. Suchao-in, N., Chirachanchai, S., and Perrier, S. (2009, March 22-26) Fluorescent pH-/Thermo-responsive Micelles from Block Copolymers Synthesized via Reversible Addition Fragmentation Chain Transfer (RAFT) Polymerization. The 237th ACS National Meeting, Salt Lake City, UT, USA
3. Suchao-in, N., Chirachanchai, S., and Perrier, S. (2008, November 30-December 4) Fluorescent-thermo-responsive Micelles from Block Copolymers Synthesized via Reversible Addition Fragmentation Chain Transfer (RAFT) Polymerization. The 30th Australasian Polymer Symposium, Melbourne, VIC, Australia

4. Suchao-in, N., Laobuthee, A., and Chirachanchai, S. (2007, April 20-22) Development of Chemiluminescent Reagent: Luminol-*N,N*-bis(2-hydroxybenzyl) alkylamine Derivatives. TRF-MAG Conference Chonburi, Thailand
5. Suchao-in, N., Laobuthee, A., and Chirachanchai, S. (2007, April 3-4) Development of Chemiluminescent Reagent: Luminol-*N,N*-bis(2-hydroxybenzyl) alkylamine Derivatives and Its Incorporating into Poly(vinyl alcohol) Gel. Symposium on Functional Polymer Based Materials Jena, Germany

Presentations:

1. Suchao-in, N., Perrier, S., and Chirachanchai, S. (2009, August 7) Vesicles or Micelles: A Model Case of Dynamic Nanostructure From PNIPAA-*b*-PDMAEA Block Copolymer. The RGJ Seminar Series LXII: Advanced Materials, Bangkok, Thailand
2. Suchao-in, N., Chirachanchai, S., and Perrier, S. (2009, March 22-26) Fluorescent pH-/Thermo-responsive Micelles from Block Copolymers Synthesized via Reversible Addition Fragmentation Chain Transfer (RAFT) Polymerization. The 237th ACS National Meeting, Salt Lake City, UT, USA
3. Suchao-in, N., Chirachanchai, S., and Perrier, S. (2008, November 30-December 4) Fluorescent-thermo-responsive Micelles from Block Copolymers Synthesized via Reversible Addition Fragmentation Chain Transfer (RAFT) Polymerization. The 30th Australasian Polymer Symposium, Melbourne, VIC, Australia

4. Suchao-in, N., Laobuthee, A., and Chirachanchai, S. (2007, April 20-22)
Development of Chemiluminescent Reagent: Luminol-*N,N*-bis(2-hydroxybenzyl)
alkylamine Derivatives. TRF-MAG Conference Chonburi, Thailand
5. Suchao-in, N., Laobuthee, A., and Chirachanchai, S. (2007, April 3-4)
Development of Chemiluminescent Reagent: Luminol-*N,N*-bis(2-hydroxybenzyl)
alkylamine Derivatives and Its Incorporating into Poly(vinyl alcohol) Gel.
Symposium on Functional Polymer Based Materials Jena, Germany

Experience:

1. University of Sydney - School of Chemistry, Key Centre for Polymers &
Colloids, NSW, Australia, Graduate Research Fellow, June 2008 – February
2009
2. Otani Tire Co., Ltd. - Quality Control, Sampran, Nakhonpathom, Thailand,
Trainee, March 2003 – June 2003