

REFERENCES

- Arduini, A., Pochini, A., Reverberi, S., and Ungaro, R. (1986). The Preparation and Properties of a New Lipophilic Sodium Selective Ether ester Derived from *p-t*-butylcalix[4]arene. Tetrahedron 42, 2089-2099.
- Bohmer, V. (1995). Calixarenes, Macrocycles with (Almost) Unlimited Possibilities. Angew Chemistry International Edition England, 34, 713-745.
- Burke, W. J. (1949). 3,4-Dihydro-1,3,2H-Benzoxazines. Reaction of *p*-Substituted Phenols with N,N-Dimethylolamines. Journal of American Chemical Society 71, 609-612.
- Burke, W. J., Bishop, J. L., Mortensen Glenniw, E. L., and Bauer, W. N. (1965). Journal of Organic Chemistry 30,3423-3427.
- Chang, Y.-C., and Frank, C.W. (1996). Grafting of Poly(γ -benzyl-L-glutamate) on Chemically Modified Silicon Oxide Surfaces. Langmuir 12, 5824-5829.
- Chiang, C., and Ishida, H. (1980). The Structure of γ -Aminopropyltriethoxysilane on Glass Surfaces. Journal of Colloid and Interface Science 74, 396-404.
- Cram, D. J. (1988). The Design of Molecular Hosts, Guests, and Their Complexes (Nobel Lecture). Angew Chemistry International Edition England 27, 1009-1020.
- Cram, D.J. (1992). Molecular Container Compounds. Nature 356, 29-36.
- Ernst, J. R., Huis, R., Gary R. H., and Nicoletta C. M. (1985) Solid-State Silicon-29 and Carbon-13 NMR Spectroscopy Using Cross-Polarization and Magic-Angle-Spinning Techniques to Characterize 3-Chloropropyl

- and 3-Aminopropyl-Modified Silica Gels. Journal of Colloid and Interface Science 103, 554-560.
- Harada, A., Suzuki, S., Okada, M. and Kamachi, M. (1996). Preparation and Characterization of Inclusion Complexes of Polyisobutylene with Cyclodextrins. Macromolecules 29, 5611-5614.
- Harland, C. E. (1994) Ion Exchange : Theory and Practice. Cambridge University Press, Cambridge.
- Hayashita, T., and Bartch, R. A. (1991). Competitive Sorption of Alkali-Metal and Alkaline-Earth-Metal Cations by Carboxylic Acid Resins Containing Acyclic or Cyclic Polyether Units. Analytical Chemistry 63, 1847-1850.
- Hayashita, T., Goo, M. J., Lee, J. C., Kim, J. S., Krzykawski, J., and Bartch, R. A. (1990). Selective Sorption of Alkali-Metal Cations by Carboxylic Acid Resins Containing Acyclic or Cyclic Polyether Units. Analytical Chemistry 62, 2283-2287.
- Hayashita, T., Lee, J. H., Chen, S., and Bartch, R. A. (1991). Selective Column Concentration of Alkali-Metal Cations with a Crown Ether Carboxylic Acid Resin. Analytical Chemistry 63, 1844-1847.
- Ishida, H., and Allen, D. J. (1996). Physical and Mechanical Characterization of Near-Zero Shrinkage Polybenzoxazine. Journal of Polymer Science : Part B : Polymer Physic 34, 1019-1030.
- Ishida, H., and Allen, D. J. (1996). Mechanical Characterization of Copolymers Based on Benzoxazine and Epoxy. Polymer 37, 20, 4487-4495.
- Ishida, H., and Dunkers, J. (1995). Vibrational assignments of 3-alkyl-3,4-dihydro-6-methyl-2H-1,3-benzoxazines in the Fingerprint Region. Spectrochimica Acta 51A, 855-867.
- Ishida, H., and Krus, C. M. (1998). Synthesis and Characterization of Structurally Uniform Model Oligomer of Polybenzoxazine. Macromolecules 31, 2409-2418.

- Ishida, H., and Low, H. Y. (1998). Synthesis of Benzoxazine Functional Silane and Adhesion Properties of Glass Fiber Reinforced Polybenzoxazine Composites. Journal of Applied Polymer Science 69, 2559.
- Ishida, H., and Rodriguez, Y. (1995). Curing Kinetics of a new Benzoxazine-based Phenolic Resin by Differential Scanning Calorimetry. Polymer 36, 3151-3158.
- Morrison, R. T. and Boyd, R. N. (1983) Organic Chemistry, 4th ed. Boston, London, Sydney, Toronto : Allyn and Bacon, Inc.
- Nagae, S., Suda, Y., Inaki, Y., and Takemoto K. (1989). Application of Nucleic Acid Base Containing Polymers to High Performance Liquid Chromatography. Journal of Polymer Science Polymer Chemistry 27.
- Nagae, S., Miyamoto, T., Inaki, Y., and Takemoto, K. (1989). Immobilization of Nucleic Acid Bases on Silica Gel and Application to HPLC for Selective Separation of Nucleosides. Polymer 21, 19-33.
- Ning, X., and Ishida, H. (1994). Phenolic Materials via Ring-Opening Polymerization : Synthesis and Characterization of Bisphenol-A Based Benzoxazines and Their Polymers. Journal of Polymer Science : Part A : Polymer Chemistry 32, 1121-1129.
- Nishiyama, N., Shick, R., and Ishida, H. (1991). Adsorption Behavior of a Silane Coupling Agent on Colloidal Silica Studied by Gel Permeation Chromatography. Journal of Colloid and Interface Science 143, 146-156.
- Pedersen, C. J. (1967). Cyclic Polyethers and Their Complexes with Metal salts. Journal of American Society 89, 7017-7036.
- Pedersen, C. J. (1968). Ionic Complexes of Macrocyclic Polyethers. Fed. Proc. Fed. Am. Chem. Soc. 27, 1305-1309.
- Pedersen, C. J. (1988). The Discovery of Crown Ethers (Noble Lecture). Angew Chemistry International Edition England 27, 1021-1027.

- Pedersen, C. J., and Frensdorff, H. K. (1972). Macrocyclic Polyethers and Their Complexes. Angew Chemistry International Edition England 11, 16-25.
- Phongtamrug, S. (1997). Study on the Benzoxazine Monomers and Their Application for Ion Extraction Material. Master's Thesis, Chulalongkorn University.
- Pluddemann, E. P. (1991). Silane coupling Agent. 2nd ed. Plenum Press, New York.
- Pulpoka, B., Asfari, Z., and Vicens, J. (1996). Synthesis of Unsymmetrical Calix[4]rene cryptand crown-6 in 1,3-alternate conformation. Tetrahedron Letters 37, 6315-6318.
- Siripattanasarakit, W. (1996). A Novel Type of Ion Extraction Material using Host-Guest Properties of Polybenzoxazine Local Structure. Master's Thesis, Chulalongkorn University.
- Ungaro, R., Arduini, A., Casnati, A., Pochini, A., and Ugozzoli, F. (1996). New Synthetic Receptors Based on Calix[4]arenes for the Selective Recognition of Ions and Neutral Molecules. Pure and Applied Chemistry. 68, 1213-1218.
- Yamagishi, T., Tani, K., Shirano, K., Ishida, S., and Nakamoto, Y. (1996). Metal Cation Extraction Properties of Linear all-ortho Phenolic Oligomers. Journal of Polymer Science : Part A : Polymer Chemistry 34, 687-693.

CURRICULUM VITAE

Name: Nungruethai Yoswathananont

Date of Birth: June 4, 1975

Nationality: Thai

University Education:

1992-1997 Bachelor Degree of Science in Material Science
Chulalongkorn University

