

REFERENCES

- Al-Muhtaseb, S.A., and Ritter, J.A. (2003) Preparation and properties of resorcinol–formaldehyde organic and carbon gels. Advanced Materials, 15, 101–114.
- Bischoff, S., Weight, A., Fujimoto, K., and LuÈcke, B. (1995) The role of promoter metals in the hydrocarbonylation of methanol over active carbon supported cobalt catalysts. Journal of Molecular Catalysis A Chemical, 95, 259.
- Burke, W.J. (1949) 3,4-dihydro-1,3,2H-benzoxazines. reaction of p-substituted phenols with N,N-dimethylolamines. Journal of the American Chemical Society, 71, 609–612.
- Burke, W.J., Bishop, J.L., Glennie, E.L.M., and Bauer, W.N. (1965) A new aminoalkylation reaction condensation of phenols with dihydro-1,3-oxazines. Journal of Organic Chemistry , 30, 3423–3427.
- Drago, R.S., Jurczyk, K., Singh, D.J., and Young, V. (1995) Low-temperature deep oxidation of hydrocarbons by metal oxides supported on carbonaceous materials. Applied Catalysis B: Environmental, 6, 155.
- Fujishima, A., and Honda, K. (1972) Electrochemical photolysis of water at a semiconductor electrode. Nature, 238, 37–8.
- Garea, S.A., Iovu, H., Nicolescu, A., and Deleanu, C. (2007) Thermal polymerization of benzoxazine monomers followed by GPC, FTIR and DETA. Polymer Testing, 26, 162–171.
- Guifen, L., Dingcai, W., and Ruowen, F. (2008) Performance of carbon aerogels particle electrodes for the aqueous phase electro-catalytic oxidation of simulated phenol wastewaters. Journal of Hazardous materials, 39, 187-193.
- Holly, F.W., and Cope, A.C. (1944) Condensation products of aldehydes and ketones with o-aminobenzyl alcohol and o-hydroxybenzylamine. Journal of the American Chemical Society , 66, 1875–1879.
- Hongda, D., Baohua, L., Feiyu, K., Ruowen, F., and Yuqun, Z. (2007) Carbon aerogel supported Pt–Ru catalysts for using as the anode of direct methanol fuel cells. Carbon, 45, 429–435.

- Horikawa, T., Hayashi, J., and Muroyama, K. (2004) Size control and characterization of spherical carbon aerogel particles from resorcinol–formaldehyde resin. Carbon, 42, 169–175.
- Ishida, H. U.S. Patent 5 543 516.
- Ishida, H., and Allen, D. (1996) Physical and mechanical characterization of near-zero shrinkage polybenzoxazines. Journal of Polymer Science Part B, 34(6), 1019–1030.
- Kasinee, H., and Ishida, H. (2002) Thermal decomposition processes in aromatic amine-based polybenzoxazines investigated by TGA and GC–MS. Journal of Polymer, 37, 4391-4402.
- Li, J., Wang, X., Wang, Y., Hang, Q., Chunling, D., Gamboa, S., and Sebastian, P.J. (2008) Structure and electrochemical properties of carbon aerogels synthesized at ambient temperatures as supercapacitors. Journal of Non-Crystalline Solids, 354, 19-24.
- Liu, J. Ph.D. (1995) Synthesis, Characterization, Reaction Mechanism and Kinetics of 3,4-dihydro-2H-1,3-benzoxazine and Its Polymers. Thesis, Case Western Reserve University, Cleveland OH.
- Lorjai, P., Chaisuwan T., and Wongkasemjit S., Journal of Sol-gel Science and Technology, submitted.
- Maldonado-Ho'dar, FJ., Ferro-Garci'a, MA., Rivera-Utrilla, J., Moreno-Castilla, C. (1999) Synthesis and textural characterization of organic aerogels, transition-metal-containing organic aerogels and their carbonized derivatives. Carbon, 37, 1199–1205.
- Neri, G., Musolino, M.G., Milone, C., Visco, A.M., and DiMario, A. (1995) Mechanism of 2,4-dinitrotoluene hydrogenation over Pd/C. Journal of Molecular Catalysis A Chemical, 95, 235.
- 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.

- Pekala, R.W. (1989) Organic aerogels from the polycondensation of resorcinol with formaldehyde. Journal of Material Science, 24, 3221-3227.
- Pekala, R.W., Farmer, J.C., Alviso, C.T., Tran, T.D., Mayer, S.T., Miller, and J.M., Dunn, B. (1998) Carbon aerogels for electrochemical applications. Journal of Non-Crystalline Solids, 225, 74-80.
- Pekala, R.W. U.S. Patent 48 73 218.
- Pekala, R.W., Alviso, C.T., Kong, F.M., and Hulse, S.S. (1992) Aerogels derived from multifunctional organic monomers. Journal of Non-Crystalline Solids, 145, 90-98.
- Pierre, A.C., and Pakonk, G.M. (2002) Chemistry of aerogels and their applications. Chemical Reviews, 102, 4243-4265.
- Rajeshwar, K. (1995) Photoelectrochemistry and the environment. Journal of Applied Electrochemistry, 25, 1067-1082.
- Rodríguez-Reinoso, F., Rodríguez-Ramos, I., Moreno-Castilla, C., Guerrero-Ruiz, A., and López-González, J.D. (1986) Platinum catalysts supported on activated carbons: I. Preparation and characterization. Journal of Catalysis, 99, 171.
- Rouquerol, F., Rouquerol, J., and Sing, K. (1999) Adsorption by Powders and Porous Solid: Principle, Methodology and Applications, San Diego: Academic Press.
- Shen, J., Hou, J., Guo, Y., Xuem, H., Wu, G., and Zhou, B. (2005) Microstructure control of RF and carbon aerogels prepared by sol-gel process. Journal of Sol-Gel Science and Technology, 36, 131-136.
- Shen, J., Hou, J., Guo, Y., Xuem, H., Wu, G., and Zhou, B. (2005) Microstructure control of RF and carbon aerogels prepared by sol-gel process. Journal of Sol-Gel Science and Technology, 36, 131-136.
- Takeichi, T., Kano, T., and Agag, T. (2005) Synthesis and thermal cure of high molecular weight polybenzoxazine precursors and the properties of the thermosets. Polymer, 46, 12172-12180.
- Tamon, H., Ishizaka, H., Araki, T., and Okazaki, I.M. (1998) Control of mesoporous structure of organic and carbon aerogels. Carbon, 36(9), 1257-1262.

- Tamon, H., Ishizaka, H., Yamamoto, T., and Suzuki, T. (1999) Preparation of mesoporous carbon by freeze drying. Carbon, 37, 2049-2055.
- Wen-Cui, L., An-Hui, L., and Shu-Cai, G. (2001) Characterization of the microstructures of organic and carbon aerogels based upon mixed cresol-formaldehyde. Carbon, 39, 1989-1994.
- Yan, J., and Zhang, Q.Y. (1979) Adsorption and Desorption. Beijing Science Press, 96.
- Yoshizawa, N., Hatori, H., Soneda, Y., Hanzawa, Y., Kaneko, K., and Dresselhaus, M.S. (2003) Structure and electrochemical properties of carbon aerogels polymerized in the presence of Cu^{2+} . Journal of Non-Crystalline Solids, 330, 99-105.
- Zhang, R., Lu, Y., Zhan, L., Liang, L., Wu, G., and Ling, L. (2002) Monolithic carbon aerogels from sol-gel polymerization of phenolic resoles and methylolated melamine. Carbon, 41, 1645-1687.

CURRICULUM VITAE

Name: Ms. Supanun Somlok

Date of Birth: March 1, 1985

Nationality: Thai

University Education:

2003-2007 Bachelor Degree of Science in Chemistry, Faculty of Science,
Kasetsart University, Bangkok, Thailand

Honors and Scholarships:

Second class honor in B.Sc. (Chemistry), Kasetsart University

Proceedings:

1. Somlok, S.; Chaisuwan, T.; and Wongkasemjit, S. (2009, March 21-26)
Polybenzoxazine-Based Carbon Aerogel as a Catalyst Support: Influence of
Support Types on Catalyst Activity for the Degradation of 4-Chlorophenol.
Proceeding of the 237th ACS National Meeting & Exposition, Salt Lake City, UT,
USA.
2. Somlok, S.; Chaisuwan, T.; and Wongkasemjit, S. (2009, April 22)
Polybenzoxazine-Based Carbon Aerogel as a Catalyst Support: Influence of
Support Types on Catalyst Activity for the Adsorption of 4-Chlorophenol.
Proceeding of the 15th PPC Symposium on Petroleum, Petrochemicals and
Polymers, Bangkok, Thailand.

Presentations:

3. Somlok, S.; Chaisuwan, T.; and Wongkasemjit, S. (2009, March 21-26)
Polybenzoxazine-Based Carbon Aerogel as a Catalyst Support: Influence of
Support Types on Catalyst Activity for the Degradation of 4-Chlorophenol.
Poster presented at 237th ACS National Meeting & Exposition, Salt Lake City,
UT, USA.
4. Somlok, S.; Chaisuwan, T.; and Wongkasemjit, S. (2009, April 22)
Polybenzoxazine-Based Carbon Aerogel as a Catalyst Support: Influence of
Support Types on Catalyst Activity for the Adsorption of 4-Chlorophenol. Poster
Presented at 15th PPC Symposium on Petroleum, Petrochemicals and Polymers,
Bangkok, Thailand.

