

REFERENCES

1. Bredas, J.L. and Street, G.B., Polaron, bipolaron and solitons in conducting polymers, Acc.Chem.Res., 18 (1985) : 309-315.
2. Techagampuch, A., et al., Promising Application of Conducting Polymers., vol.2, (New York : Marcel Dekker, 1991), P257.
3. Mintmire, J.W., White, C.T. and Elert, M.L., Heteroatom effects in heterocyclic ring chain polymers, Synthetic Metals, 16 (1986) : 235-245.
4. Machida, S. and Miyata, S., Chemical synthesis of highly electrically conductive polypyrrole, Synthetic Metals, 31 (1989) :311-318.
5. Kaufman, J.H., Colaneri, N., Scott, J.C. and Street G.B., Evolution of polaron states into bipolarons in polypyrrole, Physical Review Letters, 53(10) (1983) : 7827-7834.
6. Bredas, J.L., Themans, B., and Andre, J. M., Bipolarons in polypyrrole chains, Physical Review B, 27(12) (1983) ; 7827-7834.
7. Bredas, J.L., Scott, J.C., Yakushi, K. and Street, G.B., Polarons and bipolarons in polypyrrole : Evolution of the band structure and optical spectrum upon doping, Physical Review B, 30(2) (1984) : 1023-1025.
8. Patil, A.O., Heeger A.J. and Wuld, F., Optical properties of conducting polymers, Chem. Rev., 88 (1988) : 183-200.
9. Street, G.B., Clarke, T.C., Krounbi, M., Kanazawa, K., Lee, V., Pfluger, P., Scott, J.C. and Weiser, G., Preparation and characterization of neutral and oxidized polypyrrole films, Cryst. Liq.Cryst., 83 (1982) : 253-264.
10. Pfluger, P., Krounbi, M. and Street, G.B., The chemical and physical properties of pyrrole-based conducting polymers : The oxidation of neutral polypyrrole, J. Chem. Phys., 78(6) (1983) : 3212-3217

11. Taina, H.C. and Jam, M., A study of polypyrrole synthesized with oxidation transition metal ions, J. of Polymer Science: A : Polymer Chemistry, 26 (1968) : 743-753.
12. Mermilliod, N. and Tanguy, J., A study of chemically synthesized polypyrrole as electrode material for battery applications, J Electrochem. Soc., 133(6) (1986) : 1073-1079.
13. Diaz, A.F., Juan, I., Castillo, J.A., Logan and Wen Yaunglee, Electrochemistry of conducting polypyrrole films, J. Electroanal. Chem., 129 (1981) : 115-132.
14. Diaz, A.F. and Castillo, J.A., A polymer electrode with variable conductivity : Polypyrrole, J.C.S. Chem. Comm., (1980) :397-399.
15. Kanazawa, K.K., Diaz, A.F., Gill, W.D., Grant, P.M., and Street, G.B., Polypyrrole : an electrochemically synthesized conducting organic polymer, Synthetic Metals, 1 (1979) :329-336.
16. Diaz, A.F., Electrochemical preparation and characterization of conducting polymers, Chemical Scripta, 17 (1981) : 145-148.
17. Thanawadee Leejarkpai, Synthesis of Electrical Conducting Polymer Solution Polymerization, Master's Thesis, Chulalongkorn University, 1993.

VITA

Miss Thida Ruangsiritanyakul was born on May 9, 1969 in Kanchanaburi. She received a Bachelor's Degree of Science in Chemistry from Kasetsart University in 1989. She has been a graduate student of the Multidisciplinary Program of Petrochemistry and Polymer Science, Graduate School, Chulalongkorn University, since 1993.



ศูนย์วิทยทรัพยากร
จุฬาลงกรณ์มหาวิทยาลัย