

## BIBLIOGRAPHY

- Abragam, A. 1961. The Principles of Nuclear Magnetism. London :  
Oxford University Press.
- Andrew, E.R. 1956. Nuclear Magnetic Resonance. Cambridge  
University Press.
- Blinic, R., Hogenboom, D.L. , O'Reilly, D.E. and Peterson, E.M.  
1969. Spin Relaxation and Self-Diffusion in Liquid Crystals .  
Physical Review Letters, 23 : 969.
- Blöembergen, N. 1961. Nuclear Magnetic Relaxation. New York :  
W.A. Benjamin , Inc. .
- Bravo, N. , Doane, J.W. , Arora, S.L. and Ferguson, J.L. 1969 .  
NMR Study of Molecular Configuration and Order in a  
Fluorinated-Liquid-Crystalline Schiff Base. The Journal  
of Chemical Physics, 50 : 1398.
- Brown, G.H. 1967. Liquid Crystals. Chemistry, 40 : 10.
- Brown, G.H. , Doane, J.W. and Neff, V.D. 1971. A Review of the  
Structure and Physical Properties of Liquid Crystals.  
London : Butterworths.
- Brown, G.H. 1972. Liquid Crystals and Their Roles in Inanimate  
and Animate Systems. American Scientist, 60 : 64.

- Cabane, B. 1971. Nuclear Relaxation in Liquid Crystals. 8<sup>th</sup> Collóquim on NMR Spectroscopy.
- Carr, H.Y. and Purcell, E.M. 1954. Effects of Diffusion on Free Precession in Nuclear Magnetic Resonance Experiments. Physical Review, 94 : 630.
- Clark, N.A. and Pershan, P.S. 1973. The Light Scattering by Deformation of the Plane Texture of Smectic and Cholesteric Liquid Crystals. Physical Review Letters, 30 : 3.
- Doane, J.W. and Visintainer, J.J. 1969. Proton Spin Lattice Relaxation in Liquid Crystals. Physical Review Letters, 23 : 1421.
- Dong, R.Y. , Forbes, W.F. and Pintar, M.M. 1971. Proton Spin Relaxation in the Liquid Crystal PAA. The Journal of Chemical Physics, 55 : 145.
- De Gennes, P.G. and Sarma, G. 1972. Tentative Model for the Smectic B Phase. Physics Letters, 38A : 219.
- Groupe d'Etude des Cristaux Liquides (Orsay). 1969. Dynamics of Fluctuations in Nematic Liquid Crystals. The Journal of Chemical Physics, 51 : 816.
- Hahn, E.L. 1950. Spin Echoes. Physical Review, 80 : 580.

- Kartha, C.G. and Padmidi, A.R.K.L. 1971. Ultrasonic and Viscous Behaviour of Polymesomorphic Liquid Crystal . Journal of the Physical Society of Japan, 31 : 904.
- Kittel, C. 1967. Introduction to Solid State Physics. 3<sup>rd</sup> ed. ; New York : John Wiley & Sons , Inc. .
- Letcher, S.V. and Barlow, A.J. 1971. Dynamic Shear Properties of Some Smectic Liquid Crystals. Physical Review Letters, 26 : 172.
- Lord. Jr. , A.E. 1972. Anisotropic Ultrasonic Properties of Smectic Liquid Crystal. Physical Review Letters, 29 : 1366.
- Lubensky. T,C. 1970. Molecular Description of Nematic Liquid Crystals. Physical Review A, 2:2497.
- Martin. P.C., Parodi, O, and Pershan, P.S. 1972. Unified Hydrodynamic Theory for Crystals, Liquid Crystals, and Normal Fluids. Physical Review A, 6 : 2401.
- Martins, A.F. 1972. Interpretation of the Nuclear Spin-Lattice Relaxation-Time Behavior in the Nematic Mesophases. Physical Review Letters, 28 :289.
- Pincus, P. 1969. Nuclear Relaxation in a Nematic Liquid Crystal. Solid State Communications, 7 : 415.
- Pincus, P. 1970. Magnetic Properties of Liquid Crystals. Journal of Applied Physics, 41 : 974.

- Powell, J.C. , Phillips, W.D. , Melby , L.R. , and Panar, M .  
1965. NMR Study of Some Liquid Crystal Systems. The Journal of Chemical Physics, 43 : 3442.
- Sackmann, H. and Demus, D. 1967. Liquid Crystals, edited by Brown, G.H., Dienes, G.J. and Labes, M.M., New York. London. Paris : Gordon and Breach, Science Publishers.
- Saupe, A. 1968. Recent Results in the Field of Liquid Crystals. Angew Chemistry International Edition, 7 : 97.
- Schnur, J.M. 1972. Raman Spectral Evidence for Conformational Changes in the Liquid Crystal Homologous Series of the Alkoxyazoxybenzenes. Physical Review Letters, 29 : 1141.
- Schumacher, R.T. 1970. Introduction to Magnetic Resonance. New York : W.A. Benjamin, Inc. .
- Senghaphan, W. 1968. An Investigation of Spin-Lattice Relaxation Time of bcc Solid Helium-3. Ph.D. Thesis ; Boston University.
- Slitchter, C.P. 1963. Principles of Magnetic Resonance. New York : Evanston and London : Harper and Row.
- Trivijitkasem, P. 1972. Spin Relaxation in PAA Liquid Crystal. M.Sc. Thesis ; Chulalongkorn University.
- Uhrich, D.L., Wilson, J.M., and Resch W.A. 1970. Mössbauer Investigation of the Smectic Liquid Crystalline State. Physical Review Letters, 24 : 355.

## VITA

Name	Miss Sripen Towta
Place of Birth	Chiengmai , Thailand
Degree	B.Sc. in Physics , 1971 Chulalongkorn University Bangkok , Thailand
Graduate Scholarship	The University Developement Commission , The National Education Council Bangkok , Thailand 1971 - 1973