

## REFERENCES

1. C. Kittel, Introduction to Solid State Physics 4<sup>th</sup> ed.  
New York : John Wiley & Sons, 1971.
2. C. Kittel, Quantum Theory of Solid. New York : John Wiley  
& Sons, 1963.
3. J.M.Ziman, Principle of The Theory of Solids. 2nd ed.  
London : Cambridge University Press, 1972.
4. J.M.Ziman, Elements of Advanced Quantum Theory; London :  
Cambridge University Press, 1969.
5. A.H. Wilson, The Theory of Metals. London : Cambridge  
University Press, 1936.
6. R.B. Adler, A.C. Smith, and R.L. Longini, Introduction  
to Semiconductor Physics : New York John Wiley  
& Sons, 1964.
7. R.A. Abram, G.J. Rees and B.L.H. Wilson, " Heavily Doped  
Semiconductors and Devices. " Advances in Physics,  
27 799 - 893, 1978.
8. P.R. Wallace, R. Harris and M.J. Zuckermann, New Developments  
in Semiconductors. London. : Noordhoff International  
Publishing, 1973.
9. W. Baltensperger, " On Conduction in Impurity Bands " .  
Philosophical Magazine., 44 , 1355 - 1363, 1953.

10. F. Stern and M. Talley, " Impurity Band in Semiconductors with Small Effective Mass. " Physical Review, 100 , 1638 - 1643, 1955.
11. P.A. Wolff, " Theory of the Band Structure of Very Degenerate Semiconductors " Physical Review, 126, 405 - 418, 1962.
12. E. Antoncik, Electrons in Crystalline Solids. Vienna: (Proc. Int. Course Trieste, 1972) IAEA, 1973.
13. R.H. Parmenter, " Energy Levels of a disordered Alloy ". Physical Review, 97, 587 - 598, 1955.
14. B. Velicky " Theory of Electronic Transport in Disordered Binary Alloys : Coherent Potential Approximation. " Physical Review, 184, 614 - 627, 1969.
15. L. Schwartz, F. Brouers, A.V. Vedyayev and H. Ehrenreich, " Comparison of the Average t - Matrix and Coherent Potential Approximation in Substitution Alloys. " Physical Review B, 4 , 3383 - 3392, 1971.
16. T. Lukes, " On the Electronic Structure of Disordered Systems. " Philosophical Magazine, 12, 719 - 724, 1965.
17. S.F. Edwards, " The Electronic Structure of Disordered System. " Philosophical Magazine, 6 , 617 - 638, 1961.

18. I.M.Lifshitz, "The Energy Spectrum of Disordered Systems. " Advances in Physics, 13, 483 - 536, 1964.
19. E. O. Kane, " Thomas - Fermi Approach to Impure Semiconductor Band Structure " Physical Review, 131, 79 - 88, 1963.
20. D.C. Herbert, D' .J. Hurle and R.M.Logan, "Electron - electron interaction, band tailing and activity coefficients in doped compensated semiconductors. " Journal of Physics C : Solid State Physics, 8, 3571 - 3583, 1975.
21. V.L.Bouch Bruevich , A.G. Mironov, and I.P. Zviagin, " Behavior of the Charge Carriers in a Random Force Field and Some Problems of the Electronic Theory of Disordered Semiconductors." Rivista del Nuovo Cimento, 3, 321 - 417, 1973.
22. I.S. Gradshten and Ryzhik, Table of Integrals, Series and Products. Academic Press, 1965.
23. M. Abramowitz and Irene A. Stegun, Handbook of Mathematical Functions New York : Dover Publications, INC., 1970.
24. B.I. Halperin and M. Lax, " Impurity Band Tails in the High Density Limit. I. Minimum Counting Methods. Physical Review, 148, 722 - 740, 1966.

25. B.I. Halperin, " Electronic states in disordered systems. " Physica Femica, 8, 215 - 251, 1973.
26. T. Lukes and R.S. Tripathi, " A new approach to the density of eigenvalues and localization in a general disordered system. " Proceeding of the Royal Society of London A, 362, 79 - 95, 1978.
27. R.P. Feynman and Hibbs, Quantum Mechanics and Path Integrals. New York : Mc Graw - Hill, 1965.
28. S.F. Edwards and Gulyaev, " The density of states of a highly impure semiconductor ." Proceeding of the Physical Society, 83, 495 - 496, 1964 .
29. R. Kubo, " Generalized Cumulant Eexpansion Method. " Journal of the Physical Society of Japan, 17, 1100 - 1120, 1962 .
30. V. Sa - yakanit " Path - integral theory of a model disordered disordered system. " Journal of Physics C : Solid State Physics, 7, 2849 - 2876, 1974 ,
31. V. Sa - yakanit " Electron density of states in a Gaussian random potential : Path integral approach. Physical Review B , 19, 2266 - 2275, 1979.
32. V. Sa - yakanit, Theory of Electrons in Disordered Systems. Research Report of Rachadapiseksompot Research Fund, Chulalongkorn University, 1976. (unpulished)

33. V. Sa - yakanit and H.R. Glyde, " Impurity - Band Tails in Heavily Doped Semiconductors (Variational Method). " (to be published in Physical Review B.)
34. P.Lloyd and ER.Best, " A variational approach to disordered systems. " Journal of Physics C : Solid State Physics, 8, 3752 - 3765, 1975
35. C.J. Hwang, " Calculation of Fermi Energy and Bandtail Parameters in Heavily Doped and Degenerate n-Type GaAs." Journal of Applied Physics, 41, 2668 - 2674, 1970
36. H.C. Casey, Jr. and F. Stern " Concentration - dependent absorbtion and spontaneous emission of heavily doped GaAs." Journal of Applied Physics, 47, 631 - 643, 1976.
37. G. Arfken, Mathematical Methods for Physicists.  
New York : Academic Press, 1970



## VITA

Name Mr. Noppadon Suttisiri

Born October 18, 1954

Degree B.Sc. in Physics, April, 1976  
Chulalongkorn University Bangkok  
Thailand

Graduate Scholarship University Development Commission  
National Education Council Bangkok  
June 1976 - May 1978