

CHAPTER 56
TECHNOLOGY
APPLIED SCIENCES & HUMANITIES

Doctoral Theses

643. DEEPSHIKHA
Synthesis of Multidentate Ligands and their Application in Development of PVC based Electrochemical Sensors.
Supervisors : Dr. Anjana Sarkar and Dr. Sulekh Chandra
Th 20113

Contents

1. Introduction and literature survey. 2. Syntheses and characterization of ionophores. 3. Iron (III) ion selective electrode. 4. Cadmium (II) ion selection electrode. 5. Silver (I) ion selective electrode. 6. Sulphate ion selective electrode. 7. Perchlorate ion selective electrode. 8. Iodide ion selective electrode. 9. Conclusion and references.

644. SINGH (Randheer)
Mathematical Methods of Solutions to some Problems Involving Linear and Nonlinear Wave Motions.
Supervisor : Dr. J. Jena
Th 20114

Contents

1. Introduction. 2. Existence of self-similar solutions in reacting gases. 3. Existence and interaction of acceleration wave with a characteristic shock in transient pinched plasma. 4. Interaction of an acceleration wave with a strong shock in reacting polytropic gases. 5. Evolution and interaction of a characteristic shock with an acceleration wave in a reacting gas. 6. Nonlinear wave propagation in polytropic reacting gases. 7. Bibliography.

645. VIKAS KUMAR
**Information- Theoretic Measures based Residual Lifetime
Distribution Functions.**
Supervisors : Prof. H. C. Taneja and Dr. R. Srivastava
Th 20112

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1. Introduction and literature survey. 2. Generalized dynamic entropy measure. 3. Dynamic inaccuracy measures. 4. Length biased dynamic inaccuracy measures. 5. Generalized cumulative entropy measures. 6. Dynamic cumulative inaccuracy measures. 7. Conclusion and further scope of work. Bibliography.