LIST OF PUBLICATIONS

[A] Papers Pertaining to the Present Work

• Research Journals:

1. “Investigations on electrical and electrochemical properties of Ag⁺ ion conducting quaternary solid electrolyte systems: \( x \ [0.75\text{AgI}:0.25\text{AgCl}] \ : (1-x) \ \text{Rbl}'' - R. C. Agrawal, Angesh Chandra, Alok Bhatt, Y.K. Mahipal, *J. Phys. D: Applied Physics* **40** (2007) 4714 (UK). (Content of this paper appeared in Chapters 3 & 6)

2. “Characterization of ion transport property and study of solid state battery discharge performance on newly synthesized Ag⁺ ion conducting quaternary solid electrolyte systems: \( x \ [0.75\text{AgI}: 0.25\text{AgCl}] : (1-x) \ \text{KI}'' - R. C. Agrawal, Angesh Chandra, Alok Bhatt, Y.K. Mahipal, *European Physical Journal: Applied Physics* (2008) (in press) (Europe). (Content of this paper appeared in Chapter 4 & 6)

3. “Ion transport and electrochemical cell performance studies on hot-press-synthesized Ag⁺ ion conducting electroactive polymeric membranes: (1-x) PEO : x \ [0.7(0.75\text{AgI}:0.25 \text{AgCl}):0.3 \ \text{Ml}]'' - R.C. Agrawal, Angesh Chandra, *J. Phys. D: Applied Physics* **40** (2007) 7024 (UK). (Content of this paper appeared in Chapters 5 & 6)

4. “Investigations on ion transport property and battery discharge characteristics studies on hot-pressed Ag⁺ ion conducting nano-composite polymer electrolytes: (1-x) \ [90\text{PEO}:10\text{AgNO}_3] : x \ \text{SiO}_2'' - RC Agrawal, Angesh Chandra, Alok Bhatt, Y.K. Mahipal, *New J. Physics* **10** (2008) 043023 (UK). (Content of this paper appeared in Chapters 5 & 6)

• Proceedings:

5. “Synthesis and ion transport studies on a hot-pressed Ag⁺ ion conducting solid polymer electrolytes: (1-x) PEO : x \ [0.7(0.75\text{AgI}:0.25 \text{AgCl}):0.3 \ \text{Rbl}]'' - R.C. Agrawal, Angesh Chandra, Alok Bhatt, Y.K. Mahipal, *Proc. 2nd International Conf. on Electroactive Polymers: Materials & Devices* (19-24 Feb. 2007, Goa, India) p. 395.
6. “Cell potential discharge characteristic studies on thin film solid state battery based on hot-press-synthesized Ag$^+$ ion conducting solid polymer electrolytes: 70 PEO: 30 [0.7(0.75AgI:0.25AgCl) : 0.3 MI] (M ≡ Rb, K)” - R.C. Agrawal, Angesh Chandra, Alok Bhatt, Y.K. Mahipal, Proc. National Conf. on Physics of Nano Structured Functional Materials (16-17 March 2007, Bhilai, India) p. 68.


8. “Ion transport studies on a hot-pressed Ag$^+$ ion conducting solid polymer electrolytes: (1-x) PEO: x [0.7(0.75AgI: 0.25AgCl) : 0.3 KI]” - R.C. Agrawal, Angesh Chandra, Alok Bhatt, Y.K. Mahipal, Proc. National Conf. on Condensed Matter Days, National Institute of Technology, Rourkela, Orissa, 29-31 August 2007 (likely to be published in Indian J. Physics, 2008).

[B] Other Papers

1. “Electrical properties of a new Ag$^+$ ion glass system: x [0.75AgI: 0.25AgCl] : (1-x) [Ag$_2$O: P$_2$O$_5$]” - R. C. Agrawal, R. K. Gupta, A. Bhatt, M. L. Verma and Angesh Chandra, Ionics 10 (2004) 126 (Germany).

2. “Transport property studies on a new silver ternary glass electrolyte system: x [0.75AgI: 0.25AgCl]: (1-x) [Ag$_2$O:V$_2$O$_5$]” - R.C. Agrawal, Alok Bhatt, Angesh Chandra, Puja Diwan and M. L. Verma, Indian J. of Physics 79 (2005) 737 (India).


4. “Study of Ion Transport Phenomenon in a new Mg$^{++}$ ion conducting solid polymer electrolyte: PEO: Mg (ClO$_4$)$_2$ – Synthesized by a Novel Hot-press Method” - R.C. Agrawal, Angesh Chandra, Dinesh Sahu, Alok Bhatt, Proc. 11th Asian Conf. on Solid


