

Name : S. Jemima Balaselvi Juliana

Designation : Assistant Professor

Department : Chemistry

Date of Joining : 13-09-2004

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Educational Qualification:

Degree	Subject	College / University & Place	Year Completed
B.Sc	Chemistry	Fatima College, Madurai	1995
M.Sc	Chemistry	The American College, Madurai	1997
Ph.D	Chemistry/Material Science	Madras University, Chennai	2005
PGDCA	Computer Application	Margoschis College, Nazareth	1999

Specialisation in Teaching: Inorganic Chemistry

Specialisation in Research: Material Science

Research Interests:

- Synthesis of novel materials
- Coordination chemistry

Administrative /Academic Position/s (held / currently holding):

Positions held / currently holding	Year - From (month/year) To month/year)
Member of Senatus	2012-2013

Publications:

Articles Published in International Journals:

1. Metal insulator transition in $\text{Fe}_2\text{VAl}_{1-x}\text{Si}_x$ – S.Jemima, Awadhesh Mani, A.Bharathi, Nithya Ravindran, Y.Hariharan, Journal of Alloys and Compounds 326 (2001) 183-187.
2. Carbon solubility and superconductivity in MgB_2 – A.Bharathi, S.Jemima Balaselvi, S.Kalavathi, G.L.N.Reddy, V.Sankara Sastry, Y.Hariharan, T.S.Radhakrishnan – Physica C 370 (2002) 211-218.
3. Synthesis and search for superconductivity in LiBC – A.Bharathi, S.Jemima Balaselvi, M.Premila, T.N.Sairam, G.L.N.Reddy, C.S.Sundar, Y.Hariharan, Solid State Communication 124 (2002) 423-428.

4. Superconductivity in MgB_2 : Phonon modes and influence of carbon doping – A.Bharathi, Y.Hariharan, S.Jemima Balaselvi, C.S.Sundar, *Sadhana* Vol 28, Parts 1&2, February/April 2003, 263-272.
5. Peculiarities in the carbon substitution of MgB_2 – S.Jemima Balaselvi, N.Gayathri, A.Bharathi, V.Sankara Sastry, Y.Hariharan, *Physica C* 407 (2004) 31-38.
6. Stoichiometric carbon substitution in MgB_2 – S.Jemima Balaselvi, N.Gayathri, A.Bharathi, V.S.Sastry, Y.Hariharan, *Superconductor Science and Technology*, 17(12) (2004) 1401.

Conference / Seminar Presentations:

1. Carbon solubility and it's effect on superconductivity in MgB_2 – S.Jemima Balaselvi, A.Bharathi, S.Kalavathi, G.L.N.Reddy, V.Sankara Sastry, Y.Hariharan, T.S.Radhakrishnan, *Solid State Physics (India)*, 44 (2001) 359.
2. Study of Boron Intercalation in Mg_2Si – S.Jemima Balaselvi, A.Bharathi, G.L.N.Reddy, V.Sankara Sastry, Y.Hariharan, T.S.Radhakrishnan, *Solid State Physics (India)*, 44 (2001) 105.
3. Effect of 4d transition metal substitution in MgB_2 – S.Kalavathi, A.Bharathi, S.Jemima Balaselvi, G.L.N.Reddy, V.Sankara Sastry, Y.Hariharan, T.S.Radhakrishnan, *Solid State Physics (India)*, 44 (2001) 357.
4. Effect of electron and hole doping on the superconducting and normal state properties of MgB_2 - S.Jemima Balaselvi, A.Bharathi, V.Sankara Sastry, G.L.N.Reddy, Y.Hariharan, *Solid State Physics (India)*, Vol 45, (2002) 383.
5. Labview automation of low temperature resistivity measurements – A.Bharathi, S.Jemima Balaselvi, Y.Hariharan, *Solid State Physics (India)*, Vol 45, (2002) 167.
6. Virtual instrument based automation for low temperature resistivity experiments – J.Jayapandian, R.Mallika, S.Jemima Balaselvi, A.Bharathi – *Journal of the Instrument Society of India*, Vol 33, (2003) 176.
7. Raman Studies in $\text{MgB}_{2-x}\text{C}_x$, T. Sakuntala, S.K. Deb, A. Bharathi, S.Jemima Balaselvi, C. S. Sundar, Y.Hariharan, *Solid State Physics (India)*, Vol 46, (2003).
8. Transport studies in Na_xCoO_2 – S.Jemima Balaselvi, N.Gayathri, A.Bharathi, V.Sankara Sastry, Y.Hariharan, *Solid State Physics (India)*, Vol 46, (2003).
9. Positron annihilation studies in Na_xCoO_2 – R.Rajaraman, A.Bharathi, S.Jemima Balaselvi, C.S.Sundar, *Solid State Physics (India)*, Vol 46, 2003.
10. Electrochemical studies on the deposition of metal, P. Silviya Reeta, J.R. Bosco Bharathy, S. Jemima Balaselvi, *Frontier Areas in Chemistry*, UGC sponsored National seminar, March 1-2, 2007, Thiagarajar College, Madurai-9
11. Installation and profiling of a tubular furnace, P. Silviya Reeta, S. Jemima Balaselvi, *Frontier Areas in Chemistry*, UGC sponsored National seminar, March 1-2, 2007, Thiagarajar College, Madurai-9
12. Electrochemical deposition and characterization of the Li-B-C ternary phase, J.Nimitha, S. Sudha, S. Jemima Balaselvi, NSFAC, Jan 10-11, 2008, The American College, Madurai-2
13. Electrochemical deposition and characterization of the Mg-B binary phase, S.Sudha, J. Nimitha, S. Jemima Balaselvi, NSFAC, Jan 10-11, 2008, The American College, Madurai-2
14. Synthesis, spectral characterisation and biological activity of copper complexes of anti inflammatory drug aspirin and amino acids, C. Suchitra, D. Ponpriya, S.Jemima Balaselvi, DRDO sponsored National workshop on Recent Trends in Inorganic Materials, March 15-16, 2012, National Engineering College, Kovilpatti

Minor Project

Title	Year of Award	Amount Awarded	Status of the project-	Co-investigator, if any
Synthesis of pristine and substituted MgB ₂ through electrochemical deposition	2007	1 lakh	completed	Dr. Bosco bharathy – Principal investigator Dr. Jemima - coinvestigator

Other activities / academic credentials:

Work shop attended:

1. SERC School on Precision Physical Measurements and Measurement Science, National Physical Laboratory, New Delhi, 4-23rd December 2000.
2. Workshop on Enhancing Personal Excellence in Classroom Communication Skills of College Teachers, Christ College, Center for Education Beyond Curriculum, Bangalore, 5-7th October 2006.