

## STAFF PROFILE



**Name** : **Dr. R. Saravanan**

**Designation** : **Associate Professor & Head**

**Date of Entry into Service** : **14/06/2000**

**E-mail** : **saragow@gmail.com**

**Mobile (Optional)** : **94430 69852**

**Education** : **M.Sc., M.Phil., Ph.D.**

**Areas of specialization** : **Condensed matter physics, Crystallography, Materials science**

### **Projects undertaken**

No	Title of the Project	Name of the funding Agency	Duration	Completed/ Ongoing	Amount Sanctioned
1	Preparation, characterization and local structure of new lead free piezo ceramics Role: PI	NRB (DRDO) Naval Research Board of Defense Research and Development Organization  DNRD/05/4003/ NRB/NRB-269/MAT/12-13 Dt.15/04/2013	2 years June,22, 2013 – June 2015	Completed	Rs. 20,27,300
2	Oxide based dilute magnetic materials – Synthesis and local structural characterization Role: CI	UGC (39-497/2010 (SR))	3 years (Feb. 2011 – Jan. 2014)	Completed	Rs. 6,98,800/-
3	Bulk growth and X-ray characterization of local structure in silicon and germanium based Dilute Magnetic semiconductors Role: PI	CSIR (03(1138)/09/EM R-II)	3 Years (Mar. 2009 – Mar. 2012)	Completed	Rs. 9,32,000

4	Thermal motion of core and valence electrons, charge transfer and MEM [Maximum Entropy Method] electron density distributions in technologically important semiconductors.	CSIR (03(0949)/02/EM R-II)	3 years (Oct. 2001 – Nov. 2004)	Completed	Rs. 2,02,000
---	--	-------------------------------	---------------------------------	-----------	--------------

### Seminars Organized

Title of the Seminar/Conference/Workshop	Date	Sponsoring Agency	National/State/International	Co-ordinator/Convener
Recent Trends in Condensed Matter Physics	18 <sup>th</sup> January 2013, Friday	UGC	State Level	Convener
Progress in condensed matter physics	7 <sup>th</sup> January, 2015	UGC	State level	Organizing secretary
Materials for technological development	11/01/2019	UGC	National level	Organizing secretary

### Seminars, Workshop and Conferences Attended : Nil

### Books Published:

No	Title of the Book Published	ISBN No.	Publisher if any	Year of Publishing	Authored /Edited
1	Experimental Charge Density - Semiconductors, oxides and fluorides	ISBN-13: 978-3-8383-8816-8 ISBN-10: 3-8383-8816-X	Lambert Academic Publishing (LAP) AG & Co. KG, Saarbrücken, Germany, 2010 (204 pages), <a href="https://www.lap-publishing.com/">https://www.lap-publishing.com/</a>	2010	Author
2	Experimental Electron Density - Dilute Magnetic Semiconducting materials	ISBN-13: 978-3-8383-9666-8 ISBN-10: 3-8383-9666-9	Lambert Academic Publishing (LAP) AG & Co. KG, Saarbrücken, Germany, 2010 (204 pages), <a href="https://www.lap-publishing.com/">https://www.lap-publishing.com/</a>	2010	Author

3	Characterization of Technological materials	ISBN: 978-3-03785-012-1	TTP, Trans Tech Pub., Stafa-Zurich, Switzerland, <a href="http://www.scientific.net">http://www.scientific.net</a>	Vol. 671, 2011	Editor & Author
4	Characterization of advanced materials	ISBN: 978-3-03785-254-5	TTP, Trans Tech Pub., Stafa-Zurich, Switzerland, <a href="http://www.scientific.net">http://www.scientific.net</a>	Vol. 699, 2012	Editor & Author
5	Metal and Alloy Bonding - An Experimental Analysis	ISBN 978-1-4471-2203-6	Springer, UK <a href="http://www.springer.com/">http://www.springer.com/</a> <a href="http://www.springer.com/materials/special+types/book/978-1-4471-2203-6">http://www.springer.com/materials/special+types/book/978-1-4471-2203-6</a>	2012	Author
6	Charge density and structural characterization of thermoelectric materials	Print ISBN 978-1-945291-00-5  eBook ISBN 978-1-945291-01-2  DOI: <a href="http://dx.doi.org/10.21741/9781945291012">http://dx.doi.org/10.21741/9781945291012</a> 184 pages, full color print	Materials Research Foundations Vol. 1 <a href="http://www.mrforum.com">www.mrforum.com</a> USA	2016	Author
7	Nano Semiconducting Materials	Print ISBN 978-1-945291-04-3 ePDF ISBN 978-1-945291-05-0  DOI: <a href="http://dx.doi.org/10.21741/9781945291050">http://dx.doi.org/10.21741/9781945291050</a> 184 pages, full color print	Materials Research Foundations Vol. 3 <a href="http://www.mrforum.com">www.mrforum.com</a> USA	2016	Author
8	Novel Ceramic Materials	Print ISBN 978-1-945291-02-9 ePDF ISBN 978-1-945291-03-6  DOI: <a href="http://dx.doi.org/10.21741/9781945291036">http://dx.doi.org/10.21741/9781945291036</a>	Materials Research Foundations Vol. 2 <a href="http://www.mrforum.com">www.mrforum.com</a> USA	2016	Author

		225 pages, full color print			
9	Contemporary dielectric materials	Print ISBN 978-1-945291-12-8 ePDF ISBN 978-1-945291-13-5  DOI: 10.21741/9781945291135 156 pages, full color print	Materials Research Foundations Vol. 7 www.mrforum.com USA	2017	Editor & Author
10	Ferrite materials for memory applications R Saravanan Book - Materials Research Forum LLC, Vol.18, 2018	Print ISBN 978-1-945291-38-8, 2017 ePDF ISBN 978-1-945291-39-5 DOI: 10.21741/9781945291395	Materials Research Foundations Vol. 18 www.mrforum.com USA	2017	Author
11	Solid Oxide Fuel Cell (SOFC) Materials R Saravanan Book - Materials Research Forum LLC, Vol.18, 2018	Print ISBN 978-1-945291-50-0, 2018 ePDF ISBN 978-1-945291-51-7 DOI: 10.21741/9781945291517	Materials Research Foundations Vol. 23 www.mrforum.com USA	2018	Author
12	Non-Linear Optical Materials R Saravanan Book - Materials Research Forum LLC, Vol. 28, 2018	Print ISBN 978-1-945291-60-9, 2018 ePDF ISBN 978-1-945291-61-6 DOI: 10.21741/9781945291616	Materials Research Foundations Vol. 28 www.mrforum.com USA	2018	Author
13	Titanate Based Ceramic Dielectric Materials R Saravanan Book Materials Research Forum LLC, Vol. 25, 2018	Print ISBN 978-1-945291-54-8, 2018 ePDF ISBN 978-1-945291-55-5 DOI: 10.21741/9781945291555	Materials Research Foundations Vol. 25 www.mrforum.com USA	2018	Author
14	Dilute Magnetic Semiconducting (DMS) Materials R Saravanan Book - Materials Research Forum LLC, Vol. 35, 2018	Print ISBN 9781945291760, 2018 ePDF ISBN 9781945291777 DOI: 10.21741/9781945291777	Materials Research Foundations Vol. 35 www.mrforum.com USA	2018	Author
15	Lead-free Piezo-Ceramic Solid	Print ISBN 978-1-945291-94-4, 2018	Materials Research Foundations Vol. 41	2018	Author

Solutions R Saravanan Book - Materials Research Forum LLC, Vol. 41, 2018	ePDF ISBN 978-1- 945291-95-1 DOI: 10.21741/978 1945291951	www.mrforum.com USA		
--	--	------------------------	--	--

**Research Publications: google scholar -**

[https://scholar.google.co.in/citations?hl=en&user=aI0FrcYAAAAAJ&view\\_op=list\\_works&sortby=pubdate](https://scholar.google.co.in/citations?hl=en&user=aI0FrcYAAAAAJ&view_op=list_works&sortby=pubdate)

## Dr. R. Saravanan

Associate Professor & Head, The Madura College, Madurai  
- 625 011, Tamil Nadu, India.  
Physics Materials Science

Cited by VIEW ALL

All Since 2014

Citations	624	280
h-index	13	8
i10-index	19	7

<u>TITLE</u>	<u>CITED BY</u>	YEAR
<input type="checkbox"/> <u>Structural, optical and charge density analysis of Al doped ZnO Materials</u> D.Sivaganesh, S.Saravanakumar, V.Sivakumar, K.S.Syed Ali, E.Akapo, E ... Journal of Materials Science- Materials in Electronics (JMSE), Springer, In Press		2019
<input type="checkbox"/> <u>Interatomic chemical bonding and charge correlation of optical, magnetic and dielectric properties of La<sub>1-x</sub>Sr<sub>x</sub>FeO<sub>3</sub> multiferroics synthesized by solid- state reaction method</u> G.Gowri, R.Saravanan, S.Sasikumar, M.Nandhakumar, R.Ragasudha Journal of Materials Science: Materials in Electronics (JMSE), DOI:10.1007 ..., In Press		2019
<input type="checkbox"/> <u>Analysis of structural, optical and charge density distribution studies on Zn<sub>1-x</sub>Mn<sub>x</sub>S nanostructures</u> S Saravanakumar, D Sivaganesh, KSS Ali, MC Robert, MP Rani, R.Chokkalingam, R.Saravanan Physica B: Condensed Matter, <u>Volume 545</u> , 15 September 2018, Pages 134-140		2018
<input type="checkbox"/> <u>Investigation on charge density, piezoelectric and ferroelectric properties of (1-x)Ba(Zr<sub>0.2</sub>Ti<sub>0.8</sub>)O<sub>3-x</sub>(Ba<sub>0.7</sub>Ca<sub>0.3</sub>)TiO<sub>3</sub> lead-free piezoceramics</u> S Sasikumar, R Saravanan, S Saravanakumar Journal of Materials Science: Materials in Electronics 29 (2), 1198-1208	4	2018
<input type="checkbox"/> <u>Ferrite materials for memory applications</u>		2018

	<u>TITLE</u>	<u>CITED BY</u>	YEAR
	R Saravanan Book Materials Research Forum LLC 18		
☐	<u>Non-Linear Optical Materials</u> R Saravanan Book Materials Research Forum LLC 28		2018
☐	<u>Titanate Based Ceramic Dielectric Materials</u> R Saravanan Book Materials Research Forum LLC 25		2018
☐	<u>Dilute Magnetic Semiconducting (DMS) Materials</u> R Saravanan Book Materials Research Forum LLC 35		2018
☐	<u>Lead-free Piezo-Ceramic Solid Solutions</u> R Saravanan Book - Materials Research Forum LLC 41		2018
☐	<u>Preparation, electronic structure, and chemical bonding of lead-free (1-x)(K<sub>0.5</sub>Bi<sub>0.5</sub>)TiO<sub>3</sub>-xBaTiO<sub>3</sub> solid solution</u> S Sasikumar, R Saravanan, S Saravanakumar, MC Robert Applied Physics A 124 (1), 31		2018
☐	<u>Understanding electronic and magnetic transitions in ball milled diluted magnetic semiconductor Si<sub>1-x</sub>Ni<sub>x</sub> through experimental electron density distribution</u> R Sheeba, S Saravanakumar, S Israel, R Saravanan Journal of Alloys and Compounds 728, 887-895	2	2017
☐	<u>Structure and Charge Density Properties of (1-x)(Na<sub>1-y</sub>K<sub>y</sub>NbO<sub>3</sub>)-xBaTiO<sub>3</sub> Lead-Free Ceramic Solid Solution</u> S Sasikumar, R Saravanan Journal of Electronic Materials 46 (7), 4187-4196	1	2017
☐	<u>Charge correlation of ferroelectric and piezoelectric properties of (1-x)(Na<sub>0.5</sub>Bi<sub>0.5</sub>)TiO<sub>3</sub>-xBaTiO<sub>3</sub> lead-free ceramic solid solution</u> S Sasikumar, R Saravanan, S Saravanakumar, K Aravinth Journal of Materials Science: Materials in Electronics (Springer) 28 (13), July 2017, Volume 28, <a href="#">Issue 13</a> , pp 9950–9963	4	2017
☐	<u>Study of Various Site Interactions Using Maximum Entropy Method on Mechanically Alloyed Ni<sub>0.5</sub>Zn<sub>0.5</sub>Fe<sub>2</sub>O<sub>4</sub> Nanoferrite Particles Sintered from 1100 to 1400° C</u>	1	2017

	<u>TITLE</u>	<u>CITED BY</u>	<u>YEAR</u>
	R Saravanan, YB Kannan, N Srinivasan, I Ismail Journal of Superconductivity and Novel Magnetism (Springer) 30 (2), 407-419		
☐	<u>Sintering effect on structural, magnetic and optical properties of Ni<sub>0.5</sub>Zn<sub>0.5</sub>Fe<sub>2</sub>O<sub>4</sub> ferrite nano particles</u> YB Kannan, R Saravanan, N Srinivasan, I Ismail Journal of Magnetism and Magnetic Materials (Elsevier) 423, 217-225	8	2017
☐	<u>Effect of sintering on dielectric and AC conductivity properties of Ni<sub>0.5</sub>Zn<sub>0.5</sub>Fe<sub>2</sub>O<sub>4</sub> nano ferrite particles</u> Y.B.Kannan, R. Saravanan, N.Srinivasan, I.Ismail Journal of Australian Ceramic Society (Springer) 53, 577-581		2017
☐	<u>High temperature synthesis and electronic bonding analysis of Ca-doped LaMnO<sub>3</sub> rare-earth manganites</u> N. Thenmozhi, R Saravanan Rare Metals (Springer), DOI: 10.1007/s 12598-017-0964-z		2017
☐	<u>Understanding electronic and magnetic transitions in ball milled dilute magnetic semiconductor Si<sub>1-x</sub>Ni<sub>x</sub> through experimental electron density distribution.</u> R.A.J.R.Sheeba, S. Saravanakumar, S. Israel, R. Saravanan Journal of Alloys and Compounds (Elsevier) 728, 887-895		2017
☐	<u>Electronic structure and chemical bonding in La<sub>1-x</sub>Sr<sub>x</sub>MnO<sub>3</sub> perovskite ceramics</u> N. Thenmozhi, S. Sasikumar, S. Sonai, R. Saravanan Materials Research Express (IOP Science) 4 (4), 046103		2017
☐	<u>Electronic structure and bonding interactions in Ba<sub>1-x</sub>Sr<sub>x</sub>Zr<sub>0.1</sub>Ti<sub>0.9</sub>O<sub>3</sub> ceramics</u> J. Magayarkkarsi, S.Sasikumar, O.V.Saravanan, R. Saravanan Frontiers of Materials Science (Springer) 11 (2), 182-189		2017
☐	<u>Structural, magnetic, optical and MEM studies on co-precipitated X<sub>0.4</sub>Zn<sub>0.6</sub>Fe<sub>2</sub>O<sub>4</sub> (X = Co, Mn) nano ferrite particles</u> Y.B. Kannan, R. Saravanan, N. Srinivasan, K. Praveena, and K. Sadhana Journal of Superconductivity and Novel Magnetism (Springer) 30 (9 September ...		2017
☐	<u>Structure and charge density properties of (1-x)(Na<sub>1-y</sub>K<sub>y</sub>NbO<sub>3</sub>)-xBaTiO<sub>3</sub> lead-free ceramic solid solution</u> S. Sasikumar, R. Saravanan		2017

	<u>TITLE</u>	<u>CITED BY</u>	YEAR
	Journal of Electronic Materials (Springer) 46 (7, July 2017), 4187–4196		
□	<u>Piezoelectric and ferroelectric properties of lead-free (1-x)(Na<sub>1-y</sub>K<sub>y</sub>)(Nb<sub>1-z</sub>Sb<sub>z</sub>)O<sub>3</sub>-xBaTiO<sub>3</sub> solid solution</u> S. Sasikumar, R. Saravanan, K. Aravinth Physica B: Condensed Matter (Elsevier) 512, 58-67		2017
□	<u>Crystal Structure and Bonding Analysis of (La<sub>0.8</sub>Ca<sub>0.2</sub>)(Cr<sub>0.9-x</sub>Co<sub>0.1</sub>Cu)O<sub>3</sub> Ceramics</u> N.Thenmozhi, R. Saravanan, Yen-Pei Fu Zeitschrift für Naturforschung A, 72 (4), 383-395		2017
□	<u>Charge density analysis and magnetic behavior of Li doped NiO nano structures synthesized by sol-gel process</u> K. Sakthi Lavanya, B. Subha, M. Prema Rani, R. Saravanan Materials Research Forum 7, 128-144		2017
□	<u>Effect of the sintering temperature on the micro structure and optical properties of ZnO ceramics</u> B. Subha, R. Saravanan, N. Srinivasan Materials Research Forum 7, 102-111		2017
□	<u>Structural, optical and magnetic properties of Ga<sub>2-x</sub>Fe<sub>x</sub>O<sub>3</sub></u> M. Charles Robert, S.Sasikumar, S. Saravanakumar, R. Saravanan Materials Research Forum 7, 21-30		2017
□	<u>Contemporary Dielectric Materials</u> R Saravanan Materials Research Forum LLC 7, USA 7, ISBN 978-1-945291-12-8;978-1-945291-13-5		2017
□	<u>Structural, magnetic and optical characterization of Ni<sub>0.8</sub>Zn<sub>0.2</sub>Fe<sub>2</sub>O<sub>4</sub> nano particles prepared by co-precipitation method</u> YB Kannan, R Saravanan, N Srinivasan, K Praveena, K Sadhana Physica B: Condensed Matter 502, 181-186	<u>6</u>	2016
□	<u>Chemical bonding and charge density distribution analysis of undoped and lanthanum doped barium titanate ceramics</u> J Mangaiyarkkarasi, R Saravanan, MM Ismail Journal of Chemical Sciences 128 (12), 1913-1921	<u>3</u>	2016
□	<u>Synthesis and characterization of some ferrite nanoparticles prepared by co-precipitation method</u> YB Kannan, R Saravanan, N Srinivasan, K Praveena, K Sadhana	<u>8</u>	2016



	<u>TITLE</u>	<u>CITED BY</u>	YEAR
	Journal of Materials Science: Materials in Electronics 27 (11), 12000-12008		
<input type="checkbox"/>	<u>Preparation and Charge Density in (Co, Fe)-Doped La-Ca-Based Chromite</u> R Saravanan, N Thenmozhi, YP Fu Journal of Electronic Materials 45 (8), 4364-4374	<u>1</u>	2016
<input type="checkbox"/>	<u>Structural characterization and electron density distribution studies of (La 0.8 Ca 0.2)(Cr 0.9– x Co 0.1 Mnx) O 3</u> R Saravanan, N Thenmozhi, YP Fu Physica B: Condensed Matter (Elsevier) 493, 25-34	<u>1</u>	2016
<input type="checkbox"/>	<u>Bonding in La0.9Zn0.1FeO3 multiferroic material</u> G. Gowri, R. Saravanan, R. Pradeeba, M. Raja Rajeswari, K.Abirami Materials Research Forum 7, 63-78		2016
<input type="checkbox"/>	<u>Charge distribution around Ba-O and Ti-O bonds in BaTi1-xZrxO3 through powder X-ray diffraction</u> J.Mangaiyarkkarasi, R.Saravanan Rare Metals (Springer), DOI: 10.1007/s12598-016-0812-6		2016
<input type="checkbox"/>	<u>Novel Ceramic Materials</u> R Saravanan - Editor Materials Research Forum LLC 2, 216 Print ISBN 978-1-945291-02-9		2016
<input type="checkbox"/>	<u>Nano Semiconducting Materials</u> R Saravanan Materials Research Forum LLC 3, 172 Print ISBN 978-1-945291-04-3		2016
<input type="checkbox"/>	<u>Charge Density and Structural Characterization of Thermoelectric Materials</u> R Saravanan Materials Research Forum LLC 1, 184 - Print ISBN 978-1-945291-00-5		2016
<input type="checkbox"/>	<u>Synthesis and Structural Characterizations of Na1-xKxNb0.95Sb0.05O3</u> S. Sasikumar, R. Saravanan Materials Research Forum 2, 202-212		2016
<input type="checkbox"/>	<u>Synthesis and Charge Density Analysis of BaTiO3</u> S. Sasikumar, R. Saravanan Materials Research Forum 2, 190-201		2016

	<u>TITLE</u>	<u>CITED BY</u>	YEAR
☐	<u>Synthesis, Structure and Magnetic Behavior of Ce-Doped Lanthanum Manganite Ceramics</u> N. Thenmozhi, R. Saravanan Materials Research Forum 2, 177-189		2016
☐	<u>Synthesis and Characterization of NiFe<sub>2</sub>O<sub>4</sub> Nano Particles Prepared by the Chemical Reaction Method</u> Y.B.Kannan, R.Saravanan, N.Srinivasan Materials Research Forum 2, 147-162		2016
☐	<u>Charge Density Distribution and Bonding in Calcite</u> T. K. Thirumalaisamy, S. Saravanakumar, R. Saravanan Materials Research Forum 2, 128-146		2016
☐	<u>Charge Density of Al Doped Lanthanum Orthoferrites</u> R. Saravanan, G. Gowri Materials Research Forum 2, 108-127		2016
☐	<u>Electronic Charge Density Distributions in Sb<sub>2</sub>O<sub>3</sub></u> T. K. Thirumalaisamy, S. Saravanakumar, R. Saravanan Materials Research Forum 2, 93-107		2016
☐	<u>Effects of Cations Substitution on Structural and Magnetic Properties of LaCrO<sub>3</sub> Ceramic Perovskites</u> N. Thenmozhi, R. Saravanan, Yen-Pei Fu Materials Research Forum 2, 40-54		2016
☐	<u>Synthesis, Characterization and Charge Density Analysis of Lead Free Piezoceramics Na<sub>1-x</sub>K<sub>x</sub>NbO<sub>3</sub></u> S. Sasikumar, R. Saravanan Materials Research Forum 2, 14-26		2016
☐	<u>Synthesis and Characterization of Al<sub>2</sub>TiO<sub>5</sub>-TiO<sub>2</sub>-Al<sub>2</sub>O<sub>3</sub> Ceramics: Correlation with Charge Density</u> S.V. Meenakshi, R. Saravanan Materials Research Forum 2, 81-92		2016
☐	<u>Inter Bond Experimental Electron Density in Magnesium Ferrite Ceramic (MgFe<sub>2</sub>O<sub>4</sub>) Through XRD</u> M.J. Viswanath, M. Aysha kani, S.V. Meenakshi and R. Saravanan Materials Research Forum 2, 27-39		2016
☐	<u>Ferroelectric charge ordering in BaTi<sub>0.9</sub>Zr<sub>0.1</sub>O<sub>3</sub> lead-free ceramics through powder X-ray diffraction</u>		2016

	<u>TITLE</u>	<u>CITED BY</u>	YEAR
	J. Mangaiyarkkarasi, R. Saravanan Materials Research Forum 2, 55-68		
☐	<u>Chemical bonding and charge density imaging in Ba<sub>0.2</sub>Sr<sub>0.8</sub>TiO<sub>3</sub> ceramics by iterative entropy maximization</u> J. Mangaiyarkkarasi, R. Saravanan Materials Research Forum 2, 1-13		2016
☐	<u>Preparation and Charge Density in (Co, Fe)-Doped La-Ca-Based Chromite</u> R. Saravanan, N. Thenmozhi, Yen-Pei Fu Journal of Electronic Materials (Springer) 45 (8 August 2016), 4364-4374		2016
☐	<u>Synthesis and analysis of electron density distribution in Ba<sub>1-x</sub>Sr<sub>x</sub>TiO<sub>3</sub> ceramics</u> R Saravanan, J Mangaiyarkkarasi Journal of Materials Science: Materials in Electronics (JMSE) (Springer) 27 ...		2016
☐	<u>Structure and charge density of Ce doped gadolinium gallium garnet (GGG)</u> TK Thirumalaisamy, S Saravanakumar, S Butkute, A Kareiva, ... Journal of Materials Science: Materials in Electronics (JMSE) (Springer) 27 ...	<u>4</u>	2016
☐	<u>Structural and magnetic studies on Fe doped zinc oxide, Zn<sub>1-x</sub>Fe<sub>x</sub>O synthesized by solid state reaction</u> T Akilan, N Srinivasan, R Saravanan Journal of Materials Science: Materials in Electronics (JMSE) (Springer) 26 ...	<u>1</u>	2015
☐	<u>Signature of antiferromagnetism in entropy maximized charge density distribution of melt grown diluted magnetic semiconductor Ge<sub>1-x</sub>V<sub>x</sub></u> R Sheeba, R Saravanan, LJ Berchmans Journal of Materials Science: Materials in Electronics (JMSE) (Springer) 26 ...		2015
☐	<u>Magnetic and optical properties of Ti doped ZnO prepared by solid state reaction method</u> T Akilan, N Srinivasan, R Saravanan Materials Science in Semiconductor Processing (Elsevier) 30, 381-387	<u>13</u>	2015
☐	<u>The redistribution of charge density in CaF<sub>2</sub>: Yb<sup>3+</sup></u> TK Thirumalaisamy, R Saravanan, S Saravanakumar Journal of Materials Science: Materials in Electronics (JMSE) (Springer)	<u>2</u>	2015

	<u>TITLE</u>	<u>CITED BY</u>	YEAR
26 ...			
□	<u>Doping-induced electron density modification at lattice sites of ZnO: Ga nanostructures: effects on vibrational and optical properties</u> S Saravanakumar, A Escobedo-Morales, U Pal, RJ Aranda, R Saravanan Journal of Materials Science (Springer) 49 (16), 5529-5536	<u>1</u>	2014
□	<u>Structure of Vanadium-Doped Zinc Oxide, Zn<sub>1-XV</sub> x O</u> T Akilan, N Srinivasan, R Saravanan, P Chowdury Materials and Manufacturing Processing (Elsevier) 29 (7), 780-788	<u>8</u>	2014
□	<u>Structure analysis on Ni and V co-doped zinc oxide prepared by solid state reactions</u> T Akilan, N Srinivasan, R Saravanan Journal of Materials Science: Materials in Electronics (JMSE) (Springer) 25 ...	<u>2</u>	2014
□	<u>Effect of sintering temperature on the magnetic properties and charge density distribution of nano-NiO</u> S Saravanakumar, R Saravanan, S Sasikumar Chemical Papers (Springer) 68 (6), 788-797	<u>14</u>	2014
□	<u>Solubility of Mn stabilized cubic zirconia nanostructures</u> S Saravanakumar, J Kamalaveni, MP Rani, R Saravanan Journal of Materials Science: Materials in Electronics (JMSE) (Springer) 25 ...	<u>8</u>	2014
□	<u>Structural, magnetic and charge-related properties of nano-sized cerium manganese oxide, a dilute magnetic oxide semiconductor</u> S Saravanakumar, S Sasikumar, S Israel, GR Pradhiba, R Saravanan Materials Science in Semiconductor Processing (Elsevier) 17, 186-193	<u>10</u>	2014
□	<u>Solubility Limit of Sol-Gel Grown Nano Zn<sub>1-x</sub>MgxO Through Charge Density Distribution</u> S Francis, R Saravanan, M Açıkgöz Zeitschrift für Naturforschung A 68 (10-11), 668-676		2013
□	<u>TiO<sub>2</sub> Nanowires Grown from Nanoparticles: Structure and Charge Density Study</u> P Mohanty, S Saravanakumar, R Saravanan, C Rath Journal of Nanoscience and Nanotechnology (ASP) 13 (10), 6672-6678	<u>5</u>	2013
□	<u>Magnetic and charge derived properties of ball milled dilute magnetic semiconductor Si<sub>0.98</sub> Mn<sub>0.02</sub></u>	<u>3</u>	2013

	<u>TITLE</u>	<u>CITED BY</u>	<u>YEAR</u>
	R Sheeba, R Saravanan, S Sasikumar Physica B: Condensed Matter (Elsevier) 426, 71-78		
☐	<u>High temperature growth, charge distribution and magnetism in Co and Mn co-doped ZnO</u> S Francis, R Saravanan, LJ Berchmans Journal of Materials Science: Materials in Electronics (JMSE) (Springer) 24 ...	<u>2</u>	2013
☐	<u>Effect of Co doping on the properties of ZnO bulk samples</u> S Francis, R Saravanan, LJ Berchmans Journal of electronic materials (Springer) 42 (4), 701	<u>5</u>	2013
☐	<u>Magnetism in melt grown dilute magnetic semiconductor Ge 1- x Mn x from electron density</u> R Sheeba, R Saravanan, LJ Berchmans Materials Science in Semiconductor Processing (Elsevier) 15 (6), 731-739		2012
☐	<u>Comparison of electronic structure of as grown and solar grade silicon samples</u> R Saravanan, R Sheeba Semiconductors 46 (4), 440-446	<u>2</u>	2012
☐	<u>Doping level of Mn in high temperature grown Zn1- x Mn x O studied through electronic charge distribution, magnetization, and local structure</u> R Saravanan, S Francis, JL Berchmans Chemical Papers (Springer) 66 (3), 226-234	<u>7</u>	2012
☐	<u>Analysis on insulator-metal transition in yttrium doped LSMO from electron density distribution</u> S Israel, SS Kumar, R Renuretson, R Sheeba, R Saravanan Bulletin of Materials Science (Springer) 35 (1), 107-118	<u>3</u>	2012
☐	<u>The analysis on the rearrangement of charge density distribution in response to magnetic behavior in Mn doped SnO 2 nanoparticles</u> S Saravanakumar, M Pattammal, S Israel, R Sheeba, R Saravanan Physica B: Condensed Matter (Elsevier) 407 (3), 302-310	<u>7</u>	2012
☐	<u>A Theoretical Estimation of the Charge Density Distribution in the Diluted Magnetic Semiconductors of Si1-xMx and Ge1-xMx (M= V, Mn, Co)</u> R Sheeba, R Saravanan, LJ Berchmans Materials Science Forum 699, 167-183		2012
☐	<u>X-ray studies on PbS</u>		2012

	<u>TITLE</u>	<u>CITED BY</u>	YEAR
	M Ambika, R Saravanan Materials Science Forum 699, 153-165		
☐	<u>Synthesis and characterization of the nano semiconducting material cadmium sulphide</u> S Jacob, S Saravanakumar, R Saravanan Materials Science Forum 699, 79-88		2012
☐	<u>Experimental electronic structure of the thermoelectric materials Bi<sub>2</sub>Te<sub>3</sub> and Sb<sub>2</sub>Te<sub>3</sub></u> T Akilan, MC Robert, R Saravanan Materials Science Forum 699, 103-121		2012
☐	<u>Characterization of Advanced Materials: Special Topic Volume with Invited Peer Reviewed Papers Only</u> R Saravanan Trans Tech Publications		2012
☐	<u>Experimental charge density determination in iso-structural Tellurides: Hf<sub>0.85</sub>GeTe<sub>4</sub> and ZrGeTe<sub>4</sub></u> S Israel, S Saravana Kumar, R Sheeba, R Saravanan Proceedings of the national seminar on technologically important crystalline ...		2012
☐	<u>Phase analysis in Zn<sub>1-x</sub>Cr<sub>x</sub>O through charge density</u> S Francis, R Saravanan, LJ Berchmans Phase Transitions (Taylor & Francis) 86 (6), 620-632		2012
☐	<u>Local structure determination of the nonlinear optical material LiNbO<sub>3</sub> using XRD</u> R Saravanan, TK Thirumalaisamy, T Kajitani physica status solidi (a) (Wiley) 208 (11), 2643-2650	3	2011
☐	<u>Charge density in MoO<sub>4</sub> tetrahedron and PbO<sub>8</sub> octahedron in PbMoO<sub>4</sub></u> TK Thirumalaisamy, R Saravanan Journal of Materials Science: Materials in Electronics (JMSE) (Springer) 22 ...	6	2011
☐	<u>Synthesis and Characterization of the Nano Semiconducting Material Cadmium Sulphide</u> SSK Jacob, R Saravanan Materials Science Forum 1462 (699), 79		2011
☐	<u>A Theoretical Estimation of the Charge Density Distribution in the Diluted</u>		2011

	<u>TITLE</u>	<u>CITED BY</u>	YEAR
	<u>Magnetic Semiconductors of Si<sub>1-x</sub>M<sub>x</sub> and Ge<sub>1-x</sub>M<sub>x</sub> (M= V, Mn, Co)</u> R Sheeba, R Saravanan, LJ Berchmans Materials Science Forum 1462 (699), 167		
☐	<u>X-Ray Studies on PbS</u> M Ambika, R Saravanan Materials Science Forum 1462 (699), 153		2011
☐	<u>Metal and Alloy Bonding-An Experimental Analysis: Charge Density in Metals and Alloys</u> R Saravanan, MP Rani Springer Science & Business Media	<u>23</u>	2011
☐	<u>Single Crystal Charge Density Studies of Thermoelectric Material Indium Antimonide</u> M.Charles Robert, B.Subha, R.Saravanan Zeitschrift für Naturforschung A 66 (8-9), 562-568	<u>1</u>	2011
☐	<u>Synthesis and electron density analysis of SnO<sub>2</sub> nano particles</u> S Saravanakumar, M Jeya Priya, R Saravanan Materials Science Forum 671, 121-129		2011
☐	<u>Influence of Silicon and boron doping on the thermal conductivity of n-GaAs single crystals</u> M Prema Rani, R Saravanan Materials Science Forum 671, 153-163	<u>3</u>	2011
☐	<u>Local Structural Analysis of Al<sub>2</sub>O<sub>3</sub>, Cr: Al<sub>2</sub>O<sub>3</sub> and V: Al<sub>2</sub>O<sub>3</sub> Using Powder XRD</u> TK Thirumalaisamy, KJ Lakshmi Sri, R Saravanan Materials Science Forum 671, 131-152		2011
☐	<u>Experimental Electronic Structure of the Thermoelectric Materials Bi<sub>2</sub>Te<sub>3</sub> and Sb<sub>2</sub>Te<sub>3</sub></u> T Akilan, MC Robert, R Saravanan Materials Science Forum 1462 (699), 103		2011
☐	<u>Growth and XRD analysis of the diluted magnetic semiconductor Zn<sub>1-x</sub>Ni<sub>x</sub>O</u> KS Syed Ali, R Saravanan, M Açıkgoz Crystal Research and Technology (Wiley) 46 (1), 41-47	<u>1</u>	2011
☐	<u>Single crystal X-ray analysis of the electronic structure of the thermoelectric material Sn<sub>1-x</sub>GexTe</u>	<u>1</u>	2010

	<u>TITLE</u>	<u>CITED BY</u>	<u>YEAR</u>
	MC Robert, R Saravanan Indian Journal of Physics 84 (9), 1203-1210		
☐	<u>Growth and local structure analysis of ZnS nanoparticles</u> R Saravanan, S Saravanakumar, S Lavanya Physica B: Condensed Matter (Elsevier) 405 (17), 3700-3703	<u>18</u>	2010
☐	<u>Local distortion in Co-doped LSMO from entropy-maximized charge density distribution</u> KSS Ali, R Saravanan, AV Pashchenko, VP Pashchenko Journal of Alloys and Compounds (Elsevier) 501 (2), 307-312	<u>11</u>	2010
☐	<u>Localized ferromagnetic charge ordering through charge density analysis in nano sized diluted magnetic semiconductor Co 2+: ZnO</u> KSS Ali, R Saravanan, S Israel, M Açıköz, L Arda Physica B: Condensed Matter (Elsevier) 405 (7), 1763-1769	<u>17</u>	2010
☐	<u>Triple phase structure and electron density analysis of the thermoelectric material Bi 80 Sb 20</u> MC Robert, R Saravanan Powder Technology (Elsevier) 197 (3), 159-164	<u>9</u>	2010
☐	<u>Analysis on experimental valence charge density in germanium at RT and 200K</u> S Israel, KSS Ali, R Sheeba, R Saravanan Journal of Physics and Chemistry of Solids (Elsevier) 70 (8), 1185-1194	<u>4</u>	2009
☐	<u>Local structure of the thermoelectric material Mg 2 Si using XRD</u> R Saravanan, MC Robert Journal of Alloys and Compounds (Elsevier) 479 (1), 26-31	<u>39</u>	2009
☐	<u>Structural Analysis of Al, Ni, and Cu Using the Maximum Entropy Method, Multipole and Pair Distribution Function</u> MC Robert, R Saravanan, K Saravanakumar, MP Rani Zeitschrift für Naturforschung A 64 (5-6), 361-369		2009
☐	<u>X-ray Analysis of the Charge Density Distribution in GaP at 296 and 200 K Using a Multipole Model and the Maximum Entropy Method</u> S Israel, KSS Ali, R Sheeba, R Saravanan Chinese Journal of Physics 47 (3), 378-400	<u>2</u>	2009
☐	<u>Practical application of maximum entropy method in electron density and bonding studies</u> R Saravanan	<u>8</u>	2009



	<u>TITLE</u>	<u>CITED BY</u>	<u>YEAR</u>
	Physica Scripta (IOP) 79 (4), 048303		
□	<u>Growth of novel-diluted magnetic semiconducting material Ge 1– xMnx and X-ray characterization by the maximum entropy method (MEM) and pair distribution function (PDF)</u> KSS Ali, R Saravanan, S Israel Journal of Crystal Growth (Elsevier) 311 (4), 1110-1116	<u>4</u>	2009
□	<u>Local structure of the high-temperature thermoelectric material PbTe using the maximum entropy method (MEM) and pair distribution function (PDF)</u> R Saravanan, MC Robert Journal of Physics and Chemistry of Solids (Elsevier) 70 (1), 159-163	<u>6</u>	2009
□	<u>Effect of Iron Doping on the Electron Density Distribution in Pure Aluminium</u> R Saravanan, MP Rani Open Crystallography Journal 2, 6-10	<u>1</u>	2009
□	<u>Electron density distribution in Si and Ge using multipole, maximum entropy method and pair distribution function analysis</u> R Saravanan, KSS Ali, S Israel Pramana 70 (4), 679-696	<u>9</u>	2008
□	<u>X-ray determination of charge transfer in solar grade GaAs</u> R Saravanan, S Jainulabdeen, N Srinivasan, YB Kannan Journal of Physics and Chemistry of Solids (Elsevier) 69 (1), 83-86	<u>1</u>	2008
□	<u>X-Ray Characterization of Ag Impurities in Na 1-x Ag x Cl</u> N Hazeen, KS Syed Ali, M Prema Rani, R Saravanan Defect and Diffusion Forum 752 (278), 33		2008
□	<u>X-Ray Characterization of Ag Impurities in Na1-xAgxC1</u> R Saravanan, KS Syed Ali, M Prema Rani, R Saravanan Defect and Diffusion Forum 278, 33-44		2008
□	<u>Non-nuclear maxima (NNM), symmetric and asymmetric charge distribution in solar grade Si and n-GaAs, using X-ray powder data</u> R Saravanan, A Ann, S Jainulabdeen Physica B: Condensed Matter (Elsevier) 400 (1), 16-21	<u>9</u>	2007
□	<u>Maximum entropy method and multipole analysis of the bonding in sodium and vanadium metals</u> R Saravanan, MP Rani Journal of Physics: Condensed Matter (Elsevier) 19 (26), 266221	<u>7</u>	2007

	<u>TITLE</u>	<u>CITED BY</u>	<u>YEAR</u>
□	<u>Bonding in CoAl and NiAl metal alloys using multipole and MEM techniques</u> R Saravanan, MP Rani Journal of alloys and compounds (Elsevier) 431 (1), 121-129	<u>1</u>	2007
□	<u>Application of maximum entropy method for the study of electron density distribution in SrS, BaS and PuS using powder X-ray data</u> R Saravanan Pramana 66 (6), 1057-1065		2006
□	<u>Electron density distribution and bonding in ZnSe and PbSe using maximum entropy method (MEM)</u> KSS Ali, R Saravanan, S Israel, RK Rajaram Bulletin of Materials Science 29 (2), 107-114	<u>10</u>	2006
□	<u>Electron density distribution and bonding in ZnSe and PbSe using maximum entropy method (MEM)</u> KS Syed Ali, R Saravanan, S Israel, RK Rajaram Bulletin of Materials Science (Springer) 29 (2), 107-114		2006
□	<u>Probabilistic electron density distribution in CdTe at RT and 200K</u> R Saravanan, S Israel, Y Ono, K Ohno, M Isshiki, T Kajitani, RK Rajaram Crystal Research and Technology (Wiley) 41 (3), 259-267	<u>1</u>	2006
□	<u>estimation of the fermi momentum in al from the fourier transform of the positron annihilation angular correlation curve†</u> J Jeyakanthan, R Saravanan, SK Mohanlal physica status solidi (b) (Wiley)		2006
□	<u>Optical, thermal and phase transition studies in Sn 1-x Ge x Te</u> M Sivabharathy, N Sankar, R Saravanan, K Ramachandran Bulletin of Materials Science (Springer) 28 (7), 675-679	<u>3</u>	2005
□	<u>Bonding in ZnTe at RT, 200 and 100K revealed by entropy maximized electron density distribution</u> R Saravanan, S Israel, RK Rajaram Physica B: Condensed Matter (Elsevier) 363 (1), 166-177	<u>6</u>	2005
□	<u>Bonding in fluorite compound CaF 2 using MEM</u> R Saravanan, S Israel Physica B: Condensed Matter (Elsevier) 352 (1), 220-226	<u>13</u>	2004

	<u>TITLE</u>	<u>CITED BY</u>	<u>YEAR</u>
☐	<u>Electronic structure of InP at RT, 200 and 100K</u> S Israel, R Saravanan, RK Rajaram Physica B: Condensed Matter (Elsevier) 349 (1), 390-400	<u>24</u>	2004
☐	<u>An investigation on the bonding in MgO, CaO, SrO and BaO from the MEM electron density distributions</u> S Israel, R Saravanan, N Srinivasan, SK Mohanlal Journal of Physics and Chemistry of Solids (Elsevier) 64 (5), 879-886	<u>23</u>	2003
☐	<u>Charge transfer in CdTe at 200 and 300K</u> K Balamurugan, R Saravanan, K Asharamani, P Manimaran, ... Journal of Crystal Growth (Elsevier) 250 (3), 382-392	<u>6</u>	2003
☐	<u>Electron density distribution in GaAs using MEM</u> R Saravanan, Y Ono, M Isshiki, K Ohno, T Kajitani Journal of Physics and Chemistry of Solids (Elsevier) 64 (1), 51-58	<u>31</u>	2003
☐	<u>High resolution electron density mapping for LiF and NaF by maximum entropy method (MEM)</u> S Israel, R Saravanan, N Srinivasan, RK Rajaram Journal of Physics and Chemistry of Solids (Elsevier) 64 (1), 43-49	<u>34</u>	2003
☐	<u>Electronic charge distribution in the intermetallic compound MnHg</u> R Saravanan, S Israel, S Swaminathan, R Kalidoss, M Muruganantham Crystal Research and Technology (Wiley) 37 (12), 1310-1317	<u>9</u>	2002
☐	<u>Experimental f'' of As at 170, 200, 250 and 300 K from the Bijvoet pairs of GaAs</u> GR Sudha, KV Devi, D Arthi, SP Subramanian, N Srinivasan, ... Bulletin of Materials Science (Springer) 25 (4), 325-327	<u>1</u>	2002
☐	<u>Raman study on H<sup>+</sup>-implantation effects in highly doped n-GaAs</u> P Murugan, R Kesavamoorthy, S Amirthapandian, R Saravanan, ... Physica B: Condensed Matter (Elsevier) 315 (1), 56-63	<u>14</u>	2002
☐	<u>High resolution electron density distribution determination for GaAs and CdTe</u> T Kajitani, R Saravanan, Y Ono, K Ohno, M Isshiki Journal of crystal growth (Elsevier) 229 (1), 130-136	<u>25</u>	2001
☐	<u>X-ray structure of barium titanate-missed opportunities</u> KS Chandrasekaran, SK Mohanlal, R Saravanan, S Israel Acta Crystallographica Section B: Structural Science (IUCr) 56 (5), 918-919		2000

	<u>TITLE</u>	<u>CITED BY</u>	YEAR
☐	<u>Bonding in GaAs, CdTe and ZnTe.</u> R SARAVANAN, Y ONO, T KAJITANI Oyo Butsuri 53, 94-95		1998
☐	<u>Charge transfer in the bonding of GaAs</u> KS Chandrasekaran, SK Mohanlal, R Saravanan physica status solidi (b) (Wiley) 196 (1), 3-10	<u>5</u>	1996
☐	<u>Charge transfer in GaP and InP</u> R Saravanan, S Israel, N Srinivasan, SK Mohanlal physica status solidi (b) (Wiley) 194 (2), 435-441	<u>9</u>	1996
☐	<u>Charge transfer in ZnSe</u> N Srinivasan, R Saravanan, S Israel, SK Mohanlal Crystal Research and Technology (Wiley) 31 (1), K6-K8	<u>3</u>	1996
☐	<u>Temperature dependence of core and valence thermal vibrations in germanium</u> J Jeyakanthan, R Saravanan, SK Mohanlal physica status solidi (b) (Wiley) 190 (2), 415-419		1995
☐	<u>Debye-Waller Factors in NaxC60</u> N SRINIVASAN, R SARAVANAN, S ISRAEL, SK MOHANLAL Crystal research technology (Wiley) 30 (3), K37-K39		1995
☐	<u>X-ray investigations on the defect structure of KCl with Cd<sup>++</sup> impurities</u> R Saravanan, SK Mohanlal Crystal Research and Technology (Wiley) 30 (1), 55-62	<u>3</u>	1995
☐	<u>f'' of silicon from linear absorption measurements</u> N Srinivasan, S Israel, R Saravanan, SK Mohanlal Crystal Research and Technology (Wiley) 30 (1), K1-K3	<u>1</u>	1995
☐	<u>On the anharmonic vibrations in crystalline silicon</u> R Saravanan, SK Mohanlal, M Netaji Crystal Research and Technology (Wiley) 30 (1), 115-120	<u>2</u>	1995
☐	<u>Core and valence thermal vibrations in diamond, silicon, and germanium</u> R Saravanan, P Balamurugan, SK Mohanlal physica status solidi (b) (Wiley) 184 (2), 341-346	<u>1</u>	1994
☐	<u>Anharmonic effects in germanium</u> R Saravanan, SK Mohanlal, M Nethaji physica status solidi (b) (Wiley) 183 (2), 359-364	<u>5</u>	1994

	<u>TITLE</u>	<u>CITED BY</u>	YEAR
☐	<u>Anomalous dispersion correction terms of As and Sb</u> R Saravanan, SK Mohanlal Crystal Research and Technology (Wiley) 29 (4), 555-559		1994
☐	<u>Growth of LiNaSO<sub>4</sub> single crystals from a solution of stoichiometric pH value</u> SRS Prabakaran, P Muthusubramanian, R Saravanan, SK Mohanlal Bulletin of Materials Science (Springer) 15 (4), 355-362	<u>2</u>	1992
☐	<u>Experimental Determination of f'' for Ga and In From Bijvoet Ratio</u> R Saravanan, SK Mohanlal, KS Chandrasekaran Crystal Research and Technology (Wiley) 27 (2), 219-224	<u>2</u>	1992
☐	<u>An X-ray search for anharmonicity in indium phosphide</u> R Saravanan, SK Mohanlal, KS Chandrasekaran Zeitschrift für Kristallographie-Crystalline Materials 200 (1-4), 7-14	<u>15</u>	1992
☐	<u>Anharmonic temperature factors, anomalous-dispersion effects and bonding charges in gallium arsenide</u> R Saravanan, SK Mohanlal, KS Chandrasekaran Acta Crystallographica Section A: Foundations of Crystallography (IUCr) 48 ...	<u>34</u>	1992
☐	<u>Anomalous dispersion effects, anharmonic thermal vibrations and bonding charges in indium antimonide</u> R Saravanan, SK Mohanlal, KS Chandrasekaran Journal of Physics and Chemistry of Solids (Elsevier) 52 (7), 879-886	<u>12</u>	1991
☐	<u>Investigations of Bijvoet Differences and Anharmonicity in Gallium Phosphide</u> R Saravanan, SK Mohanlal, KS Chandrasekaran physica status solidi (b) (Wiley) 165 (1), 67-74	<u>6</u>	1991
☐	<u>Experimental determination of Δf for indium by X-ray diffraction</u> R Saravanan, SK Mohanlal		1991
☐	<u>IR, microhardness and etching studies of Gel-grown rubidium hydrogen tartrate crystals</u> S Asath Bahadur, R Saravanan, RK Rajaram, V Ramakrishnan Crystal research and technology (Wiley) 25 (11), K273-K277	<u>4</u>	1990

ORCID ID: <https://orcid.org/0000-0003-1219-7886>

---

## Research Activities

Degree	No. Awarded	No. Submitted	No. Guiding
M.Phil.,	60	-	-
Ph.D.,(Part-time)	8	-	6
Ph.D. (Full-time)	4	-	-

## PhD. Guidance (Completed) by Dr. R. Saravanan

---

### 1. Name: Dr. S. Sasikumar, M.Sc., M.Phil. Ph.D.

NRB-DRDO Project-Project fellow, Research Scholar, Dept. of Physics, The Madura College, Madurai – 625 011, TN, India

Title of the Ph.D.: **Synthesis and characterization of BaTiO<sub>3</sub> based lead free piezoelectric materials**

Registration No.: F9436, Dt. (24/11/14)(MKU)

Journal Publications: International: 5; National: Nil

Conference/Seminar : 5

Status: Viva-Voce examination completed on 14/12/2018

---

### 2. Name: Dr. R.A.J.R.Sheeba, M.Sc., M.Phil., Ph.D.

SRF-CSIR Project, Research Scholar, Dept. of Physics, The Madura College, Madurai – 625 011, TN, India

Title of the Ph.D.: **Characterization of Si and Ge based DMS materials**

Registration No.: F8372, Dt. 09/04/2010 (MKU)

Journal Publications: International: 5; National: Nil

Conference/Seminar : 3

Status: Viva-Voce examination completed on 11/12/2018

---

### 3. Name: Dr. Y. B. Kannan, M.Sc., M.Phil. Ph.D.

Assistant Prof., Dept. of Physics, Arumugam Pillai Seethai Ammal College, Tiruppattur – 630 211, Sivagangai Dt.

(As co-guide) Title of the Ph.D.: **Synthesis and Characterization of Ferrite Materials**

Registration No.: P9315, Dt. 12/03/2011 (MKU)

Journal Publications: International: 7; National: Nil

Conference/Seminar : 3

Status: Ph.D. Degree applied. (Viva-Voce completed on 28/09/2018).

---

### 4. Name: Dr. J. Mangaiyarkkarasi, M.Sc., M.Phil. Ph.D.

Associate Prof., Dept. of Physics, NMSS Vellaichamy Nadar College, Nagamalai, Madurai – 625019, (FDP Scholar – 2015-17)

Title of the Ph.D.: **Preparation and Structural Characterization of Dielectrics and Ceramic materials**

Registration No.: P8545, Dt. 18/09/2009 (MKU)

Journal Publications: International: 7; National: Nil

Conference/Seminar : 3

Status: Degree applied. (Viva Voce Completed on 06/07/2018)

---

**5. Name: Dr. N. Thenmozhi, M.Sc., M.Phil., Ph.D.**

Associate Prof., Dept. of Physics, NMSS Vellaichamy Nadar College, Nagamalai, Madurai – 625019, (FDP Scholar – 2015-17)

Title of the Ph.D.: **Growth, Physical and X-ray Characterization of manganite Structures**

Registration No.: P8479; Dt. 16/07/2009 (MKU)

Journal Publications: International: 8; National: Nil

Conference/Seminar : 3

Status: Degree applied (Viva voce Completed on 13/04/2018)

---

**6. Name: Dr. T.K.Thirumalaisamy, M.Sc., M. Phil., Ph.D.**

Associate Prof., Dept. of Physics, H.K.R.H. College, Uthamapalayam - 625 533, TN, India

Title of the Ph.D.: **XRD Characterization of Non Linear Optical Materials**

Registration No.: P8419, Dt. 4/6/2009, MKU

Journal Publications: International: 8; National: -

Conference/Seminar : 3

Status: Degree applied (Viva voce completed on 10/04/2018)

---

**7. Name: Dr. S. Saravanakumar, M.Sc., M. Phil., Ph.D.**

Asst. Prof., Dept. of Physics, Kalasalingam University, Krishnan Kovil, Srivilli putthur, TN, India

Title of the Ph.D.: **Synthesis and characterization of nano semiconductors**

Registration No.: P9292, Dt. 28/02/2011, MKU

Journal Publications: International: 10; National: 1

Conference/Seminar : 5

Status: Degree Awarded (Viva voce 27/08/2015)

---

**8. Name: Dr. S. Francis, M.Sc., M.Phil., Ph.D.**

Dept. of Physics, Yadava College, Madurai – 625016, TN, India

Title of the Ph.D.: **Growth, Crystallographic, Structural, Physical, Magnetic characterization of Oxide Based Dilute Magnetic semiconductors (DMS)**

Registration No.: 3530, Dt. 28/12/2005 (MKU)

Journal Publications: International: 5; National: Nil

Conference/Seminar : 3

Status: Degree Awarded (Viva Voce 04/08/2014)

---

**9. Name: Dr. Charles Robert, M.Sc., M.Phil., Ph.D.**

Associate Prof., Dept. of Physics, HKRH College, Uthamapalayam – 625533, TN, India

Title of the Ph.D.: **Structural and Physical Characterization of Thermoelectric Materials**

Registration No.: 3521, Dt. 15/12/2005 (MKU)

Journal Publications: International: 5 National: 1

Conference/Seminar : 2

Status: Degree Awarded (Viva Voce 08/08/2014)

---

**10. Name: Dr. M. Prema Rani, M.Sc., M.Phil., Ph.D.**

Associate Prof., Dept. of Physics, The Madura College, Madurai – 625011, TN, India (FDP Scholar – 2010-12)

Title of the Ph.D.: **Analysis of Average and Local Structure and Characterization of Important Metals and Semiconductor Materials Using Single Crystal and Powder X-ray Diffraction**

Registration No.: 3416; Dt.05/04/2005 (MKU)

Journal Publications: International: 5; National: 1

Conference/Seminar : Nil  
Status: Degree Awarded (Viva Voce 05/03/2012)

---

**11. Name: Dr. K. S. Syed Ali, M.Sc., M.Phil., Ph.D.**

(Now at USA)

Title of the Ph.D.: **Growth, Structural and Electronic Characterization of Some Diluted Magnetic Materials**

Registration No.: 3464; Dt.19/08/2005 (MKU)

Journal Publications: International: 5 National: 3

Conference/Seminar : Nil

Status: Degree Awarded (Viva Voce 23/06/2011)

---

**12. Name: Dr. S. Israel**

Lecturer (S.G.), M.Sc., M.Phil., Ph.D., Dept. of Physics, American College, Madurai – 625002, TN, India

Title of the Ph.D.: **X-ray Studies of the Electronic Properties of Some Technologically Important Semiconducting Systems**

Registration No.: 0635 Dt. 03/10/2001 (MKU)

Journal Publications: International: 12; National: 1

Conference/Seminar : Nil

Status: Degree Awarded (Viva Voce 11/07/2007)

---

---

## **Currently Ph.D. doing scholars**

---

**13. Name: Mrs. S.V. Meenakshi, M.Sc., M.Phil.**

Assistant Prof., Dept. of Physics, Sri Meenakshi Govt. Arts College for Women, Madurai – 625 001, TN, India TN, India

Title of the Ph.D.: **Synthesis and structural, dielectric, magnetic characterization of ceramic-ferrite magneto-electric composites**

Registration No.: P3734, Dt.21/11/2014 (MKU)

Journal Publications: International: 1; National: Nil

Conference/Seminar : 2

Status: Work in progress

---

**14. Name: Ms. G. Gowri, M.Sc., M.Phil.**

Assistant Prof., Dept. of Physics, The Madura College, Madurai – 625 011, TN, India

Title of the Ph.D.: **Synthesis, characterization and charge density of multi ferroic materials**

Registration No.: P4287, Dt. 19/12/2015 (MKU)

Journal Publications: International: 3; National: Nil

Conference/Seminar : 2

Status: Work in progress

---

**15. Mr. O. V. Saravanan, M.Sc., M.Phil.**

Mr. O.V. Saravanan, Research Scholar, Research Centre and PG Department of Physics  
The Madura College (Autonomous), Madurai – 625 011

Mobile: +91 90439 38284,

E-mail: ovsaravanan2258@gmail.com

Title of Ph.D. : **Synthesis and characterization of solid solutions of NaBiTiO<sub>3</sub> based lead-free ceramic materials**



Registration No.: P5212, Dt.23/02/2018 (MKU)

Journal Publications: International: 1;

Electronic structure and bonding interactions in Ba<sub>1-x</sub>Sr<sub>x</sub>ZrO<sub>3</sub> ceramics, Jegannathan Mangaiyarkkarasi, Subramanian Sasikumar, Olai Vasu Saravanan, and Ramachandran Saravanan, *Frontiers of Material Science*, Springer, (2017), DOI 10.1007/s11706-017-0376-x (I.F: 1.471).

Conference/Seminar : 1

Status: Work in progress

---

**16. Mr. S. Sonai, M.Sc., M.Phil.**

Mr. S. Sonai, Research Scholar, Research Centre and PG Department of Physics  
The Madura College (Autonomous), Madurai – 625 011

Mobile: +91 96773 92350,

E-mail: physonai@gmail.com

Title of Ph.D. : **Synthesis, characterization and dielectric propertied of solid solutions of NaKNbO<sub>3</sub> and BaTiO<sub>3</sub> based lead free piezoelectric ceramics**

Registration No.: P5213, Dt.23/02/2018 (MKU)

Journal Publications: International: 1;

Electronic structure and chemical bonding in La<sub>1-x</sub>Sr<sub>x</sub>MnO<sub>3</sub> perovskite ceramics, N. Thenmozhi, S. Sasikumar, S. Sonai and R. Saravanan, (2017), *Materials Research Express*, IOP Science, (I.F: 1.068).

Conference/Seminar : 1

Status: Work in progress

---

**17. Name: Ms. B. Subha, M.Sc., M.Phil.**

Dept. of Physics, Yadava Women's College, Madurai – 625 016

**(As co-guide)**

Title of the Ph.D.: **Sintering effect on the structure of some ceramics grown using different methods**

Registration No.: P4466, Dt. 14/03/2016 (MKU)

Journal Publications: International: 1; National: Nil

Conference/Seminar : 1

Status: Work in progress

---

**18. Name: Mr. T. Akilan, M.Sc., M.Phil.**

Mr. T. Akilan

Project Fellow (UGC projcet), Dept. of Physics, Thiagarajar College, Madurai - 625 009, TN, India, (As co-guide)

**(As co-guide)**

Title of the Ph.D.: **Synthesis and local structural characterization of Oxide based dilute magnetic materials**

Registration No.: F8754, Dt. 3/10/2011(MKU)

Journal Publications: International: 5; National: Nil

Conference/Seminar : 3

Status: Work completed

---

## Review Record

---

**Publons** Verified Record

PREPARED BY PUBLONS ON AUGUST 12TH 2018

Ramachandran Saravanan

<https://publons.com/a/935117>

Peer Review Summary

1. **Materials Letters**
2. **Materials Science in Semiconductor Processing**
3. **Materials Science and Engineering B**
4. **Crystal Research and Technology**
5. **Solid State Communications**
6. **Scientific Reports**
7. **Intermetallics**
8. **Journal of Alloys and Compounds**
9. **Journal of Physics and Chemistry of Solids**

### Pre-Publication Review List

1. **Apr 2018 Journal of Physics and Chemistry of Solids**

*Effect of sintering process on room temperature ferromagnetism in pure and manganese doped zinc oxide*

2. **Nov 2017 Materials Science in Semiconductor Processing**

*Nickel mono-silicide formation using a photo-thermal process assisted by ultra-violet laser*

3. **Oct 2017 Materials Science in Semiconductor Processing**

*Nickel mono-silicide formation using a photo-thermal process assisted by ultra-violet laser*

4. **May 2017 Materials Science and Engineering B**

5. **Apr 2017 Materials Science and Engineering B**

*Shape-induced magnetic anisotropy in iron oxide nanosheets with high aspect ratio*

6. **Mar 2017 Materials Letters**

*Effects of critical particle size on properties and microstructure of porous purging materials*

7. **Feb 2017 Materials Letters**

*Effects of critical particle size on the properties and microstructure of the porous purging materials*

8. **Jan 2017 Journal of Alloys and Compounds**

*A Facile growth of spray based ZnO films and device performance investigation for Schottky diode: determination of interface state density distribution*

9. **Jun 2016 Scientific Reports**

*Fabrication of Silica Nanospheres Coated Membranes: towards the Effective Separation of Oil-in-Water Emulsion in Extremely Acidic and Concentrated Salty Environments*

10. **Nov 2014 Materials Letters**

*A new partial transient liquid-phase bonding process with powder-mixture interlay for bonding Cf/SiC composite and Ti-6Al-4V alloy*

11. **Oct 2014 Materials Letters**

*Effect of Si doping on structure, thermal expansion and magnetism of antiperovskite manganese nitrides  $Mn_3Cu_{1-x}Si_xN$*

12. **Aug 2014 Materials Letters**

Performed 19 reviews for journals including *Materials Letters* and *Materials Science in*

*Effect of Si doping on structure, thermal expansion and magnetism of antiperovskite manganese nitrides  $Mn_3Cu_{1-x}Si_xN$*

**13. Aug 2014 Materials Letters**

*The Piezoelectric Properties of  $SrBi_4Ti_4O_{15}-Na_{0.5}Bi_{4.5}Ti_4O_{15}$  Solid Solution*

**14. Jul 2013 Materials Science in Semiconductor Processing**

*Electronic structure and magnetism in ternary gadolinium-based cubic inverse perovskites*

**15. Feb 2013 Materials Science in Semiconductor Processing**

*Electronic structure and magnetism in ternary gadolinium-based cubic inverse perovskites*

**16. Feb 2012 Intermetallics**

Oct 2009 Solid State Communications

*Study of phase transitions, electronic structure and optical properties of  $Mg_2Si$  under high pressure*

**17. Aug 2009 Crystal Research and Technology**

*Synthesis of Ru microspheres by self-assembly in tungstosilicate acid solution and photocatalytic degradability of cango red*

**18. Apr 2009 Crystal Research and Technology**

*Thermal and EPR investigations of thallium gallium disulphide single crystal*

---

**Invited Talks/Keynote Address**

<b>Date</b>	<b>Institute</b>	<b>Title of the Lecture</b>	<b>Type</b>
29/01/2015	Sri Meenakshi Govt. Arts College for Women (A), Madurai-2	Materials and their Characterization	Invited talk - in PG Association Meeting
13/03/2009	<u>Dept. of Physics, Thiagarajar College, Madurai – 625 009</u>	Smarter Materials	Key note address at the State Level inter collegiate student seminar on Physics of smart materials
27/09/2007	<u>J. College of Arts and Science, Pudukkottai- 622 404</u>	Materials and Technological Developments	Special invited Lecture
26/03/2007	<u>Dept. of Physics, HKRH College, Uthamapalayam - 625 533</u>	X-ray Characterization of crystalline systems	Special Keynote address
22/03/2007	<u>Dept. of Physics, APA College of Arts and Culture, Palani – 624 601</u>	Materials and their Characterization	Special Lecture(Intercollegiate Seminar on Current Trends in Physics)
21/02/2007	<u>Dept. of Physics, SN College, Perungudi Madurai – 625 022</u>	Materials and their Characteristics	Keynote address (Einstein's Day cum intercollegiate meet)
12/02/2007	<u>Dept. of Physics, Yadava College (Men), Tiruppalai , Madurai – 625 014</u>	Avenues in Physics Research	Inaugural address (State level intercollegiate meet)

			YEARN 2007)
24/08/2006	<u>Dept. of Physics, SVN College, Madurai – 625 019</u>	Technological Materials and their X-ray characterization	Invited lecture
22/02/2006	<u>Dept. of Physics, Yadava College (Men), Tiruppalai , Madurai – 625 014</u>	X-ray diffraction studies on materials	Invited lecture (Regional seminar on condensed matter physics)
08/10/2004	Dept. of Physics, Arul Anandar College, Karumathur – 625 514 .Madurai Dt	X-ray diffraction studies on materials	Guest lecture
24/07/2004	<u>Dept. of Physics, Devanga Arts College, Aruppukkottai – 626 101</u>	X-ray diffraction	Guest lecture
21/03/2003	<u>Dept. of Electronics and Instrumentation Engineering, Faculty of Engineering and Technology, Annamalai University, Annamalainagar–608 002</u>	Valedictory Address	Valedictory Address for the engineers (Technical Symposium “STROBE 2K3”)

---

**Academic council/Board of Studies Member: from (2000)**

1. Dept. of Physics, Kalasalingam University, Krishnankovil
2. Dept. of Physics, NMSSVN College, Madurai
3. Dept. of Physics, SN College, Madurai
4. Dept. of Physics, Yadava College, Madurai
5. Dept. of Physics, Thiagarajar College, Madurai
6. Dept. of Physics, VVV College, Sivakasi
7. Dept of Physics, Jeyaraj Annapackiam College, Periyakulum
8. Dept. of Physics, Yadava Womens College, Madurai

**Honors Achieved: Nil**

Agency	Recognition IN/National/State	Cash award if any(Amount)	For the service of

**Service in Extra Curricular Activities (NSS/NCC/AEEP/YRC/MCCA/Club etc.,) : Nil**

Whether	Period

NSS/NCC/AEEP/YRC	

**Reviewer/editor of a journal**

Title of the Journal	ISSN No. if any	International/ National/State	Impact factor/h- index
Materials Letters (Elsevier)	ISSN: 0167-577X	International	2.437/ 99
Physics and Chemistry of Solids (Elsevier)	ISSN: 0022-3697	International	2.048/ 83
Scientific Reports (Nature Publishing Group)	ISSN: 2045-2322	International	5.525/ 69
Journal of Alloys and Compounds (Elsevier)	ISSN: 0925-8388	International	3.014/ 122
<u>Materials Science in Semiconductor Processing</u> - Elsevier	ISSN: 1369-8001	International	2.593/45
<u>Materials Science and Engineering B</u> - Solid-State Materials for Advanced Technology - Elsevier	ISSN: 0921-5107	International	3.316/97
<u>Crystal Research and Technology</u> -Wiley	ISSN: Previously 0232-1300 Online ISSN: 1521-4079	International	1.0/57
<u>Solid State Communication</u> -Elsevier	ISSN: 0038-1098	International	1.549/116
<u>Scientific Reports</u> - Nature Publishing Group	ISSN:2045-2322	International	5.47/122
<u>Intermetallics</u> – Elsevier	ISSN: 0966-9795	International	3.42/94
Review records available at <a href="https://publons.com/a/935117">https://publons.com/a/935117</a>			

**Details of Orientation and Refresher attended:Nil**

**Any Other Information : Nil**