



**Dr. R. Yuvakkumar**  
**Assistant Professor**

### Contact

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**Academic Qualifications: M.A./M.Sc./M.Ed./M.Phil./Ph.D./**

**Teaching Experience: \_\_\_6\_\_\_ Years**

**Research Experience: \_\_\_12\_\_\_ Years**

### Additional Responsibilities

1. Co-Ordinator – Dept. Alumni, Parent Teacher Meet
2. Co-Ordinator – Dept. Photographic Club
3. Co-Ordinator – SWAYAM - MOOC, TN-SET
4. Co-Ordinator – Dept. Magazine and AZHAGU Newsletter
5. VPP coordinator (Nemam Village, 2017)
6. Question paper setter in various colleges and universities for UG/PG programme.

## Areas of Research

Supercapacitors, Water splitting, Biosensors, Nanomaterials, Thin Films

## Research Supervision / Guidance

Program of Study		Completed	Ongoing
Research	Ph.D.	Xx	03
	M.Phil.	06	03
Project	PG	12	06
	UG / Others	M.Tech - 06	Xx

## Research Publications

International		National		Others
Journals	Conferences	Journals	Conferences	Books / Chapters / Monographs / Manuals
115	05	1	15	05

Cumulative Impact Factor (as per JCR) : 100  
h-index : 21  
i10 index : 35  
Total Citations : 1419

## Funded Research Projects

### Completed Projects

S. No	Agency	Period		Project Title	Budget (Rs. In lakhs)
		From	To		
1	DRDO New Delhi	2008	2009	Mapping of Indian capability on Nano Science and Technology	6.50
2	UGC	2016	2018	Development, characterization and cancer targeting potential of bioinspired magnetite (Fe <sub>3</sub> O <sub>4</sub> ) nanopowders	6.00

## Patents Granted

1. Sun Ig Hong, Suresh, J., **Yuvakkumar, R.**, A. Joseph Nathanael., and Sundrarajan, M., Method for Manufacturing ZnO Nanopowder and ZnO Nanopowder Manufactured by the Method, Korean **Patent Number 10-1617994**, Registration No.:1016179940000 Registration Date : 2016.04.27.
2. Rajendran, V., Kannan, N., **Yuvakkumar, R.**, Elango V. and Manivasakan, P. A novel approach to prepare crystalline nano molybdenum particles, Indian Patent Ref. No.: 218/CHE/2009 dt. 30.01.2009, Journal No. 33/2010; Publication Date: 13/08/2010. **Patent Number 297894**

## Patents Published

1. Rajendran, V., Suryaprabha, R., Shanmuga Priya, D. and **Yuvakkumar, R.**, P. TiO<sub>2</sub> and Neem Doped Chitosan - Hydroxypropyl Methylcellulose Nanocomposite Films for Food Packaging Applications, Indian Patent Ref. No.: 736/CHE/2014 dt. 17.02.2014. Journal No. 33/2010; Publication Date: 21/08/2015.
2. Sundrarajan, M., Sun Ig Hong, Suresh, J., **Yuvakkumar, R.**, and Rajiv Gandhi, R. Bioinspired metal oxide nanopowders for biomedical applications, Indian Patent Ref. No.: 3557/CHE/2014 dt. 20.07.2014. Journal No. 33/2010; Publication Date: 01/07/2016.
3. Rajendran, V., Kannan, N., and **Yuvakkumar, R.**, Influence of nano silica on the growth and yield of maize crop, Indian Patent Ref. No.: 1135/CHE/2009 dt. 18.05.2009, Journal No. 33/2010; Publication Date: 25/03/2016.

## R&D Books

1. **Abstract Book** - IUPAC-Sponsored International Conference on Nanomaterials and Nanotechnology (NANO-2010), Macmillan Advanced Research Series (ISBN 023-033-206-4), Edited by V. Rajendran, P. Manivasakan, **R. Yuvakkumar**, P. Paramasivam, B. Hillebrands and K. E. Geckeler.
2. **Compendium on Indian Capability on Nanoscience and Technology**, Published by Macmillan Publishers India Ltd (ISBN 978-935-059-030-0) Edited by V.Rajendran, W.Selvamurthy, K.Saminathan, D.B.S.Sethi, P.Prabu, **R.Yuvakkumar**, P.Manivasakan and P.Paramasivam.
3. **Proceeding Book on Applications of Nano Materials: Electronics, Energy and Environment** - IUPAC-Sponsored International Conference on MACRO-AND SUPRAMOLECULAR ARCHITECTURES AND MATERIALS (MAM-12): Nano Systems

and Applications, Bloomsbury Publishing India PVT. Limited (ISBN 978-93-82563-35-8), Edited by V. Rajendran, **R. Yuvakkumar**, K. Thyagarajah and K.E. Geckeler.

### **R&D Book Chapters**

1. Structural characterization of beryllium and indium oxide powders, **R. Yuvakkumar**, V. Milton, G. Ravi, S.I. Hong, Contemporary Dielectric Materials, Chapter 9, Materials Research Forum, Published online 1/1/2017, 16 pages, DOI: <http://dx.doi.org/10.21741/9781945291135-9>.
2. Synthesis and structural characterization of gallium oxide powders **R. Yuvakkumar**, D. Sidharth, G. Ravi, S.I. Hong, Contemporary Dielectric Materials, Chapter 9, Materials Research Forum, Published online 1/1/2017, 9 pages, DOI: <http://dx.doi.org/10.21741/9781945291135-2>.

### **Distinctive Achievements / Awards by Professional Bodies**

1. **Young Faculty in Science**, Venus International Research Foundation, India
2. **Visiting Fellowship**, 2017-18, 3 months, Jawaharlal Nehru Centre for Advanced Scientific Research, JNCASR, India
3. **Brain Korea Research Fellowship**, National Research Foundation, South Korea
4. **Senior Research Scientist**, University of Science and Technology, South Korea
5. **Young Scientist Award**, Venus International Research Foundation, India

### **Events organized in leading roles**

Number of Seminars / Conferences / Workshops / Events organized:

1. Organizing Secretary, National Seminar on Advanced Materials Research, Alagappa University, 19<sup>th</sup> January, 2017.

### **Events organized as an active member**

1. Active Member of Organising Committee, INTERNATIONAL CONFERENCE, MAM-2012, November 21-25, 2012.
2. Active Member of Organising Committee, DST-INSPIRE PROGRAMME, 2011.
3. Active Member of Organising Committee, INTERNATIONAL CONFERENCE, NANO-2010, December 13-16, 2010.
4. Active Member of Organising Committee, DST PAC (Project Advisory Committee) Meeting, July 6-9, 2009
5. Active Member of Organising Committee, National Symposium on Acoustics NSA 2007, December 5-7, 2007

6. Active Member of Organising Committee, National Symposium Instrumentation'32 (NSI'32), October 24-26, 2007
7. Active Member of Organising Committee, ACT NEXT :Noble prize in Physics 2017 at Department of Physics, Alagappa University on 28th March 2018.
8. Active Member of Organising Committee, International Conference on momentous role of nanomaterials in renewable energy devices (IC MNRE 2018 ) Alagappa University, Karaikudi, 1-2 March 2018
9. Active Member of Organising Committee, Business Oriented Analytical Research and Development (BOARD-2018) at Department of Physics, Alagappa University during 31st January – 1st February 2018.
10. Active Member of Organising Committee, National Conference on Futuristic Materials (NCFM-2017) at Department of Physics, Alagappa University during 27 & 28th March 2017.
11. Active Member of Organising Committee, National Theme Meet on University-Industry Interface 2017 (NTM U21-2017), Alagappa University during 20th September 2017.
12. Active Member of Organising Committee, ACT NEXT :Noble prize in Physics 2016 at Department of Physics, Alagappa University on 28th April 2017.
13. Active Member of Organising Committee, Business Oriented Hands-on Training on Analytical Instrumentation (HI-BOAT-2017) at Department of Physics, Alagappa University during 2nd & 3rd March 2017.
14. Active Member of Organising Committee, Organized a National Seminar on “Recent Advancements in Frontier Areas of Materials Science” at Department of Physics, Alagappa University, Karaikudi, during 23-24th March, 2016.
15. Active Member of Organising Committee, Alagappa University Celebrates Themed Nobel Excellence Talks – 2015 (ACT NEXT-2015) at Department of Physics, Alagappa University on 18th March 2016.

### Overseas Exposure / Visits

1. **Senior Research Scientist**, Division of Physical Metrology, **Korea Research Institute of Standards and Science, Daejeon 305-600, South Korea**, 2014-2015.
2. **Post-Doctoral Researcher**, Department of Nanomaterials and Engineering, **Chungnam National University, Daejeon, South Korea**, 2013- 2014.
3. 14<sup>th</sup> Asian Chemical Congress (14 ACC), Contemporary Chemistry for Sustainability and Economic Sufficiency, 5-8 September 2011, **Bangkok, Thailand**. Yuvakkumar, R., and Rajendran, V. Influence of nano nutrients on heterocyst forming cyanobacterium *Anabaena ambigua* Rao.
4. EMCEM 2014 - 2<sup>nd</sup> International conference on Energy Material, Chemical Engineering and Mining Engineering, 11-12 January 2014, **Wuhan, China**. R. Yuvakkumar, J. Suresh, A. Joseph Nathanael, M. Sundrarajan and S.I. Hong A

comparative study on antibacterial and wash durability behaviour of ZnO and CuO nanoparticles treated cotton fabric using sodium alginate as cross linker.

5. 2<sup>nd</sup> International conference on Mechanics, Dynamic Systems and Material Engineering (MDSME2014), May 24-25, 2014, **Guangzhou, China**. R. Yuvakkumar, J. Suresh and S.I. Hong Green synthesis of zinc oxide nanoparticles.
6. The Korean Institute of Metal and Materials / 2014 Spring Meeting, April 24-25, 2014, **Daegu, South Korea**. R. Yuvakkumar, K. Yong Keun, A. Joseph Nathanael and S.I. Hong Rambutan peels promoted biomimetic synthesis of zinc oxide nanocrystals.

## Events Participated

### Conferences / Seminars / Workshops:

1. B. Saravanakumar, B. Jansi Rani, G. Ravi, **R. Yuvakkumar\***, Synthesis and characterization of SnO<sub>2</sub>, Zn-SnO<sub>2</sub> & Ag-SnO<sub>2</sub> as a pseudocapacitor electrode. International Symposium on Nanomaterials for Clean Energy and Health Applications (ISNCHA-2017), Coimbatore Institute of Technology (CIT)-Coimbatore. (6-8 December 2017).
2. B. Saravanakumar, R.Shobana G. Ravi, **R. Yuvakkumar\***, Role of different chelating agent in synthesis of copper doped tin oxide (Cu-SnO<sub>2</sub>) nanoparticles. 2<sup>nd</sup> International conference on Condensed Matter & Applied Physics (ICC-2017), Govt. Engineering College, Bikaner-Rajasthan. (24,25th November 2017).
3. B. Saravanakumar, M. Durga, G. Ravi, **R. Yuvakkumar\***, Role of NaOH concentration on synthesis and characterization of  $\beta$ -V<sub>2</sub>O<sub>5</sub> nanorods by Solvothermal method. International Conference on International Conference on Renewable Energy Research & Education -RERE-18. (8 - 10 Feb 2018).
4. B.Saravanakumar, C.Selvam, G.Ravi, M.Thambidurai, **R. Yuvakkumar\***, Synthesis and characterization of Ni-MgO for pseudocapacitive Applications. International Conference on RENEWABLE ENERGY SCIENCE & TECHNOLOGY (ICREST-2017), Dept. of Energy Science, Alagappa University-Karaikudi. (10,11th March-2017).
5. B. Jansi Rani, B. Saravanakumar, M. Durga, G. Ravi, **R. Yuvakkumar\***, Influence of surfactant on the structural, morphological and optical properties of anatase TiO<sub>2</sub> nanoparticles. International Conference on RENEWABLE ENERGY SCIENCE & TECHNOLOGY (ICREST-2017), Dept. of Energy Science, Alagappa University-Karaikudi. (10,11th March-2017)
6. B. Jansi Rani, Shilpa P. Raj, G. Ravi, R. Yuvakkumar\*, Surfactant Free SnO<sub>2</sub> Nanoplate Array Synthesis for Supercapacitor Capacitor Applications, International Conference on "RENEWABLE ENERGY RESEARCH & EDUCATION (RERE-2018)" on 9th – 10th Feb 2018 in association with Conn Center for Renewable Energy Research, University of Louisville, KY-USA.
7. B. Jansi Rani, B. Saravanakumar, G. Ravi, **R. Yuvakkumar\***, Facile Synthesis of SnO<sub>2</sub>/ $\alpha$ -Fe<sub>2</sub>O<sub>3</sub> Nanocomposite for Supercapacitor Capacitor Applications. 2<sup>nd</sup>

- International conference on Condensed Matter & Applied Physics (ICC-2017), Govt. Engineering College, Bikaner-Rajasthan (24,25th November 2017).
8. B. Jansi Rani, B. Saravanakumar, G. Ravi, **R. Yuvakkumar\***, Influence of Sintering Temperature on The Structural and Optical Properties of CuO Nano Particles. International Seminar on Nnaoscience & Technology (ISNST-2016), Mother Teresa Women's University-Kodaikanal. (September 20, 2016).
  9. B. Jansi Rani, B. Saravanakumar, G. Ravi, **R. Yuvakkumar\***, Photoelectrochemical Performance of Pristine and Sn doped  $\alpha$ -Fe<sub>2</sub>O<sub>3</sub> Nanospheres. International Symposium on Nanomaterials for Clean Energy and Health Applications (ISNCHA-2017), Coimbatore Institute of Technology (CIT)-Coimbatore. (6-8 December 2017).
  10. B. Jansi Rani, B. Saravanakumar, G. Ravi, R. Yuvakkumar\*, "Influence of Reducing Agent (NaBH<sub>4</sub>) Concentration on Structural, Optical & Magnetic Properties of NiO Nanoparticles" National Conference on Futuristic Materials (NCFM-2017), Department of Physics, Alagappa University, Karaikudi. (March 27 & 28 - 2017).
  11. B. Jansi Rani, B. Saravanakumar, G. Ravi, R. Yuvakkumar\*, "Physico-Chemical Properties of Hematite Nanostructures" National Conference on Systematic Investigations of Structural, Morphological and Optical Properties of Materials (NCSI'16), Department of Physics, Sacred Heart College (Autonomous), Tirupattur, Vellore District. (01/12/2016).
  12. B. Jansi Rani, B. Saravanakumar, G. Ravi, R. Yuvakkumar\*, "Influence of Calcination Temperature on Structural, Optical & Magnetic Properties of Hematite Nanoparticles" National Seminar on Advanced Materials Research (AMR-2017), Department of Physics, Alagappa University, Karaikudi. (January 19 - 2017).
  13. **Yuvakkumar R.**, and V., Rajendran A comprehensive review of nanomolybdenum materials preparation, International Symposium on Macro- and Supramolecular Architectures and Materials (MAM 2012), India, November 21-25, 2012.
  14. **Yuvakkumar, R.**, Elango, V., Rajendran, V. and Kannan, N. Preparation and characterization of zero-valent iron nanoparticles, International Conference on Nano Materials and Nano Technology (NANO 2010), India, December 13-16, 2010.
  15. Rajendran, V., **Yuvakkumar, R.** and Kannan, N. Impact of nano silica powders on the growth of maize crop, International Conference on Food and Agriculture Applications of Nanotechnologies (NANOAGRI 2010), Brazil June 20-25, 2010.
  16. **Yuvakkumar, R.**, Elango, V., Kannan, N. and Rajendran, V. Impact of nano silica on growth and yield of maize crop, International Conference on Recent Trends in Nano & Bio Sciences (ICORTNBS 2010), Hyderabad, Feb 24-26, 2010.
  17. **Yuvakkumar, R.**, Elango, V., Kannan, N. and Rajendran, V. Influence of nano silica particles on the growth of maize crop, International Conference on Nano Materials (ICNM-2009), Kottayam, April 06-08, 2009.

## Membership in

### Professional Bodies

1. Life Member: Indian Physics Association, Life Membership No. GEN/LM/13172
2. Life Member: Solar Energy.
3. Life Member: PVR Research Foundation.
4. Life Member in Materials Research Society of India
5. Life Member in Indian Society of Atomic and Molecular Physics
6. Life Member in Society for Advancement of Electrochemical Science and Tech., LF201801129

### Editorial Board

1. Journal of Condensed Matter & Materials Physics,
2. Micro and Nanosystems
3. Journal of Modern and Applied Physics
4. Journal of Clinical Breast Cancer Research
5. Nanometrics
6. Journal of Biological and Chemical Technology

### Advisory Board

1. 2017 International Conference on Materials Engineering and Nano Sciences Singapore January 7-9, 2017, International Technical Committee
2. 2018 International Conference on Mechanical Manufacturing and Industrial Engineering, MMIE 2018, Kuala Lumpur, Malaysia, International Technical Committee
3. 2018 International Conference on Advanced Composite Materials, ICACM 2018, Kuala Lumpur, Malaysia

### Academic Bodies (such as Board of Studies etc.)

1. Board of Studies-Member: B.Sc., Physics, Sri Vasavi College, Erode
2. Board of Studies-Member: B.Tech., and M.Tech., Nanoscience and Technology, K.S.R. Rangasamy College of Technology, Tiruchengode

### Others

1. Member, Trialect, United States Incorporation, USA
2. Doctoral Committee Member, Periyar University
3. Doctoral Committee Member, Bharathiyar University
4. Doctoral Committee Member, Karunya University

## Resource persons in various capacities

Number of Invited / Special Lectures delivered: 10

### Others

1. Articles published in Newspapers / Magazines : 02
2. Products developed : 03



3. No. of PhD Thesis evaluated : 01

4. No. of PhD Public Viva Voce Examination conducted : 01

## Research Publications

2019 (24)		
114	S Asaithambi, P Sakthivel, M Karuppaiah, R Murugan, R Yuvakkumar, G. Ravi	
	Preparation of SnO <sub>2</sub> Nanoparticles with Addition of Co Ions for Photocatalytic Activity of Brilliant Green Dye Degradation	
	Journal of Electronic Materials 48 (4), 2183-2194, 2019	
113	P Sakthivel, S Asaithambi, M Karuppaiah, S Sheikfareed, R Yuvakkumar, G. Ravi	
	Different rare earth (Sm, La, Nd) doped magnetron sputtered CdO thin films for optoelectronic applications	
	Journal of Materials Science: Materials in Electronics 30 (10), 9999-10012, 2019	
112	BJ Rani, M Praveenkumar, S Ravichandran, V Ganesh, RK Guduru, R. Yuvakkumar	
	Ultrafine M-doped TiO <sub>2</sub> (M= Fe, Ce, La) nanosphere photoanodes for photoelectrochemical water-splitting applications	
	Materials Characterization 152, 188-203, 2019	
111	BJ Rani, MP Kumar, S Ravichandran, G Ravi, V Ganesh, RK Guduru, R. Yuvakkumar	
	WO <sub>3</sub> nanocubes for photoelectrochemical water-splitting applications	
	Journal of Physics and Chemistry of Solids	
110	B Jansi Rani, N Dhivya, G Ravi, SS Zance, R Yuvakkumar, SI Hong	
	Electrochemical Performance of $\beta$ -Ni(OH) <sub>2</sub> @Ni(OH) <sub>2</sub> Nanocomposite for Water Splitting Applications	
	ACS Omega 4 (6), 10302-10310, 2019	
109	B Saravanakumar, R Shobana, G Ravi, V Ganesh, R Yuvakkumar	
	Preparation and electrochemical characterization of Mo <sub>9</sub> O <sub>26</sub> nanopowders for supercapacitors applications	
	Nano-Structures & Nano-Objects 19, 100340, 2019	
108	B Saravanakumar, SP Ramacahndran, G Ravi, V Ganesh, RK Guduru, R Yuvakkumar	
	Electrochemical performances of monodispersed spherical CuFe <sub>2</sub> O <sub>4</sub> nanoparticles for pseudocapacitive applications	
	Volume 168, October 2019, 108798	

<b>107</b>	BJ Rani, A Anusiya, G Ravi, R Yuvakkumar	
	Multi-phase $\text{CuBi}_2\text{O}_4@\text{CuO}@\alpha\text{-Bi}_2\text{O}_3$ nanocomposite electrocatalyst for electrochemical water splitting application	
	AIP Conference Proceedings 2115 (1), 030573	
<b>106</b>	BJ Rani, G Ravi, R Yuvakkumar, SI Hong	
	Novel $\text{SmMn}_2\text{O}_5$ hollow long nano-cuboids for electrochemical supercapacitor and water splitting applications	
	Vacuum 166, 279-285	
<b>105</b>	BJ Rani, PA Kanjana, G Ravi, R Yuvakkumar, B Saravanakumar	
	Superior electrochemical water oxidation of novel $\text{NiS}@\text{FeS}_2$ nanocomposites	
	Materials Science in Semiconductor Processing 101, 174-182, 2019	
<b>104</b>	B Jansi Rani, M Praveenkumar, S Ravichandran, G Ravi, Ramesh K Guduru, R Yuvakkumar	<b>1.340</b>
	$\text{BiVO}_4$ Nanostructures for Photoelectrochemical (PEC) Solar Water Splitting Applications	
	Journal of Nanoscience and Nanotechnology, Volume 19, Number 11, November 2019, pp. 7427-7435(9)	
<b>103</b>	B. Jansi Rani, G. Ravi, R. Yuvakkumar, S. Ravichandran, Fuad Ameen, A. Al-Sabri	
	Efficient, highly stable Zn-doped NiO nanocluster electrocatalysts for electrochemical water splitting applications	
	Journal of Sol-Gel Science and Technology, February 2019, Volume 89, Issue 2, pp 500–510	
<b>102</b>	R. Uma Maheswari, R. Yuvakkumar, G. Ravi, S. I. Hong	<b>1.340</b>
	Organic Datura metal leaf extract mediated inorganic rare earth $\text{La}_2\text{O}_3$ nanocrystals formation	
	Journal of Nanoscience and Nanotechnology, 19 (7), 4033-4038, 2019	
<b>101</b>	B. Saravanakumar, G. Ravi, V. Ganesh, S. Ravichandran, A. Sakunthala, R. Yuvakkumar	<b>2.347</b>
	Low surface energy and pH effect on $\text{SnO}_2$ nanoparticles formation for supercapacitor applications	
	Journal of nanoscience and nanotechnology 19 (6), 3429-3436, 2019	
<b>100</b>	B Saravanakumar, G Ravi, R Yuvakkumar, V Ganesh, RK Guduru	
	Synthesis of polyoxometalates, copper molybdate ( $\text{Cu}_3\text{Mo}_2\text{O}_9$ ) nanopowders, for energy storage applications	
	Materials Science in Semiconductor Processing 93, 164-172, 2019	
<b>99</b>	B Saravanakumar, G Ravi, V Ganesh, RK Guduru, R Yuvakkumar	
	$\text{MnCo}_2\text{O}_4$ nanosphere synthesis for electrochemical applications	

	Materials Science for Energy Technologies 2 (1), 130-138, 2019	
<b>98</b>	BJ Rani, G Ravi, R Yuvakkumar, S Ravichandran, F Ameen, S AlNadhary	
	Sn doped $\alpha$ -Fe <sub>2</sub> O <sub>3</sub> (Sn= 0, 10, 20, 30 wt%) photoanodes for photoelectrochemical water splitting applications	
	Renewable Energy 133, 566-574, 2019	
<b>97</b>	BJ Rani, MP Kumar, G Ravi, S Ravichandran, RK Guduru, R Yuvakkumar	
	Electrochemical and photoelectrochemical water oxidation of solvothermally synthesized Zr-doped $\alpha$ -Fe <sub>2</sub> O <sub>3</sub> nanostructures	
	Applied Surface Science 471, 733-744,2019	
<b>96</b>	M Karuppaiah, P Sakthivel, S Asaithambi, R Murugan, R Yuvakkumar, G Ravi	
	Solvent dependent morphological modification of micro-nano assembled Mn <sub>2</sub> O <sub>3</sub> /NiO composites for high performance supercapacitor applications	
	Ceramics International 45 (4), 4298-4307,2019	
<b>95</b>	M Karuppaiah, P Sakthivel, S Asaithambi, R Murugan, R Yuvakkumar, G Ravi	
	Formation of one dimensional nanorods with microsphere of MnCO <sub>3</sub> using Ag as dopant to enhance the performance of pseudocapacitors	
	Materials Chemistry and Physics	
<b>94</b>	B. Saravanakumar, T. Priyadharshini, G. Ravi, V. Ganesh, A. Sakunthala, R. Yuvakkumar	<b>2.347</b>
	Hydrothermal synthesis and electrochemical properties of ZnCo <sub>2</sub> O <sub>4</sub> nanospheres	
	Ionics, 25 (1), 353-360, 2019	
<b>93</b>	BJ Rani, A Anusiya, M Praveenkumar, S Ravichandran, RK Guduru, ...	
	Ag implanted ZnO hierarchical nanoflowers for photoelectrochemical water-splitting applications	
	Journal of Materials Science: Materials in Electronics 30 (1), 731-745	
<b>92</b>	B Saravanakumar, SP Ramachandran, G Ravi, V Ganesh, A Sakunthala, ...	
	Transition mixed-metal molybdates (MnMoO <sub>4</sub> ) as an electrode for energy storage applications	
	Applied Physics A 125 (1), 6, 2019	
<b>91</b>	A Anusiya, BJ Rani, G Ravi, R Yuvakkumar, S Ravichandran, V Ganesh, ...	<b>1.860</b>
	Transition-Metal Element (Ni, Co)-Doped MgO Microflowers for Electrochemical Biosensor Applications	
	JOM 71 (1), 279-284, 2019	
<b>2018 (26)</b>		

<b>90</b>	Ponnuchamy Kumar, Rathinam Yuvakumar, Vijayakumar Sekar, Baskaralingam Vaseeharan	<b>2.210</b>
	Cytotoxicity of phloroglucinol engineered silver (Ag) nanoparticles against MCF-7 breast cancer cell lines	
	Materials Chemistry and Physics, 220, 40-408, 2019	
<b>89</b>	Sami AlYahya, B. Jansi Rani, G. Ravi, R. Yuvakkumar, A. Arun, Fuad Ameen, S. AlNadhary	<b>2.019</b>
	Size dependent magnetic and antibacterial properties of solvothermally synthesized cuprous oxide (Cu <sub>2</sub> O) nanocubes	
	Journal of Materials Science: Materials in Electronics 29 (20), 17622-17629, 2018	
<b>88</b>	B Saravanakumar, C Selvam, G Ravi, M Thambidurai, R Yuvakkumar	
	Role of NaOH concentration on synthesis and characterization of $\beta$ -V <sub>2</sub> O <sub>5</sub> nanorods by solvothermal method	
	AIP Conference Proceedings 1992 (1), 040028, 2018	
<b>87</b>	BJ Rani, SP Raj, G Ravi, R Yuvakkumar	
	Surfactant free SnO <sub>2</sub> nanoplate array synthesis for supercapacitor applications	
	AIP Conference Proceedings 1992 (1), 030007, 2018	
<b>86</b>	B. Saravanakumar, A. Anusiya, B. Jansi Rani, G. Ravi, R. Yuvakkumar	
	Role of different chelating agent in synthesis of copper doped tin oxide (Cu-SnO <sub>2</sub> ) nanoparticles	
	AIP Conference Proceedings 1953, 030192 (2018); <a href="https://doi.org/10.1063/1.5032527">https://doi.org/10.1063/1.5032527</a>	
<b>85</b>	R. Shobana, B. Saravanakumar, G. Ravi, R. Yuvakkumar	
	Effect of CTAB concentration on synthesis of nickel doped manganese oxide nanoparticles	
	AIP Conference Proceedings 1953, 030167 (2018); <a href="https://doi.org/10.1063/1.5032502">https://doi.org/10.1063/1.5032502</a>	
<b>84</b>	B. Jansi Rani, B. Saravanakumar, G. Ravi, R. Yuvakkumar	
	Facile synthesis of SnO <sub>2</sub> / $\alpha$ -Fe <sub>2</sub> O <sub>3</sub> nanocomposite for supercapacitor capacitor applications	
	AIP Conference Proceedings 1953, 030111 (2018); <a href="https://doi.org/10.1063/1.5032446">https://doi.org/10.1063/1.5032446</a>	
<b>83</b>	B.C.M.A. Ashwin, G. Sivaraman, T. Stalin, R. Yuvakkumar, P. Muthu Mareeswaran	<b>3.165</b>
	Selective and sensitive fluorescent sensor for Pd <sup>2+</sup> using coumarin 460 for real-time and biological applications	
	Journal of Photochemistry and Photobiology B: Biology, Volume 183, June 2018, Pages 302–308	
<b>82</b>	B Saravanakumar, SP Ramachandran, G Ravi, V Ganesh, S Ravichandran, P Muthu Mareeswaran, R Yuvakkumar	
	Enhanced pseudocapacitive performance of SnO <sub>2</sub> , Zn-SnO <sub>2</sub> , and Ag-SnO <sub>2</sub> nanoparticles	

	Ionics 24 (12), 4081-4092	
<b>81</b>	B. Saravanakumar, R. Shobana, G. Ravi, V. Ganesh, R. Yuvakkumar	<b>1.566</b>
	Pseudocapacitive NiO/NiSnO <sub>3</sub> electrode for supercapacitor applications	
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<b>80</b>	B Saravanakumar, G Ravi, V Ganesh, Fuad Ameen, A Al-Sabri, R Yuvakkumar	<b>1.575</b>
	Surfactant assisted zinc doped tin oxide nanoparticles for supercapacitor applications	
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<b>79</b>	B. Jansi Rani, B. Saravanakumar, G. Ravi, A. Sakunthala, R. Yuvakkumar	<b>1.455</b>
	Pure and cobalt substituted zinc ferrite magnetic ceramics for super capacitor application	
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<b>78</b>	B. Jansi Rani, G. Ravi, S. Ravichandran, V. Ganesh, Fuad Ameen, A. Al-Sabri, R. Yuvakkumar	<b>2.951</b>
	Electrochemically active XWO <sub>4</sub> (X=Co, Cu, Mn, Zn) nanostructure for water splitting applications	
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<b>77</b>	Eadi Sunil Babu; B Saravanakumar; G Ravi; R Yuvakkumar; V Ganesh; Ramesh K. Guduru; Sungjin Kim	<b>2.019</b>
	Zinc oxide nanotips growth by controlling vapor deposition on substrates	
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<b>76</b>	R. Uma Maheswari, B. Jansi Rani, G. Ravi, R. Yuvakkumar, Fuad Ameen, A. Al-sabri	<b>1.575</b>
	Structural, morphological, optical and antibacterial properties of pentagon CuO nanoplatelets	
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<b>75</b>	Eadi Sunil Babu, B. Jansi Rani, G. Ravi, R. Yuvakkumar, Ramesh K. Guduru, V. Ganesh, Sungjin Kim	<b>2.269</b>
	Novel NiWO <sub>4</sub> nanoberries morphology effect on photoelectrochemical properties	
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<b>74</b>	B. Jansi Rani, M. Ravina, G. Ravi, V. Ganesh, S. Ravichandran, R. Yuvakkumar	
	Ferrimagnetisms in cobalt ferrite (CoFe <sub>2</sub> O <sub>4</sub> ) nanoparticles	
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<b>73</b>	B. Jansi Rani, M. Ravina, G. Ravi, S. Ravichandran, V. Ganesh, R. Yuvakkumar	
	Synthesis and characterization of Hausmannite (Mn <sub>3</sub> O <sub>4</sub> ) nanostructures	

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<b>72</b>	R. Yuvakkumar, Jae Sook Song, Sun Ig Hong	
	Environment-friendly synthesis of nanocrystalline nickel oxide and its antibacterial properties	
	Korean J. Mater. Res. Vol. 28, No. 1 (2018)	
<b>71</b>	B. Jansi Rani, M. Durga, G. Ravi, P. Krishnaveni, V. Ganesh, S. Ravichandran, R. Yuvakkumar	<b>1.455</b>
	Temperature dependent physico-chemical properties of MgFe <sub>2</sub> O <sub>4</sub> nanopowders	
	Applied Physics A (2018) 124, 1-10	
<b>70</b>	Eadi Sunil Babu, B. Jansi Rani, G. Ravi, R. Yuvakkumar, Ramesh K. Guduru, S. Ravichandran, Faud Ameen, Sungjin Kim, Heung Woo Jeon	<b>2.269</b>
	Vertically aligned Cu-ZnO nanorod arrays for water splitting applications	
	Materials Letters, Volume 222, 58-61 (2018)	
<b>69</b>	P. Vishnukumar, B. Saravanakumar, G. Ravi, V. Ganesh, Ramesh K. Guduru, R. Yuvakkumar	<b>2.269</b>
	Synthesis and Characterization of NiO/Ni <sub>3</sub> V <sub>2</sub> O <sub>8</sub> Nanocomposite for Supercapacitor Applications	
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<b>68</b>	B. Jansi Rani, B. Saravanakumar, G. Ravi, V. Ganesh, S. Ravichandran, R. Yuvakkumar	<b>2.019</b>
	Structural, optical and magnetic properties of CuFe <sub>2</sub> O <sub>4</sub> nanoparticles	
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<b>67</b>	B Saravanakumar, S P Ramachandran, G Ravi, V Ganesh, Ramesh K Guduru and R Yuvakkumar	<b>1.068</b>
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### **Journals with ISSN/ISBN**

<b>S. No</b>	<b>Title of the Article</b>	<b>Author(s)</b>	<b>Name of the journal Vol. No. &amp; Page</b>	<b>International / National</b>	<b>ISBN / ISSN</b>
1.	A Comparison study of two Indium free alternative Cadmium based TCO thin films for optoelectronic applications	P. Sakthivel, R. Murugan, S. Asaithambi, M. Karuppaiah, R.Yuvakkumar and <b>G.Ravi</b>	International Journal of Advance Engineering and Research Development Volume 5, Special Issue 07, April- <b>2018</b>	I	2348 - 6406
2.	Rapid microwave assisted synthesis of Mn <sub>2</sub> O <sub>3</sub> and Co <sub>3</sub> O <sub>4</sub> nanoparticles and their structural, optical and magnetic properties	M. Karuppaiah, R. Murugan, P. Sakthivel, S. Asaithambi, R.Yuvakkumar and <b>G.Ravi</b>	International Journal of Advance Engineering and Research Development Volume 5, Special Issue 07, April- <b>2018</b>	I	2348 - 6406
3.	Effect of annealing temperature on physical properties of tin oxide nanoparticles by microwave assisted route	S. Asaithambi, R. Murugan, P. Sakthivel, M. Karuppaiah, R. Yuvakkumar and <b>G.Ravi</b>	International Journal of Advance Engineering and Research Development Volume 5, Special Issue 07, April- <b>2018</b>	I	2348 - 6406
4.	Synthesis and characterization of ZnO Nanoflowers	A. Anusiya, B. Jansi Rani, G. Ravi, R. Yuvakkumar	International Journal of Advance Engineering and Research Development Volume 5, Special Issue 07, April- <b>2018</b>	I	2348 - 6406
5.	Synthesis and Characterization of $\gamma$ -Bi <sub>2</sub> O <sub>3</sub> Nanorods	B. Jansi Rani, G. Ravi, R. Yuvakkumar	International Journal of Advance Engineering and Research Development Volume 5, Special Issue 07, April- <b>2018</b>	I	2348 - 6406

