

## Dr. R. Yuvakkumar Assistant Professor

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Academic Qualif	Academic Qualifications				
Degree	Institution	Year	Branch	Class	
B.Sc.	BHARATHIAR UNIVERSITY	2003	PHYSICS	Ι	
B.Ed.	BHARATHIAR UNIVERSITY	2004	PHYSICAL SCIENCES	Ι	
M.Sc.	BHARATHIAR UNIVERSITY	2006	PHYSICS	Ι	
M.Ed.	PERIYAR	2007	PHYSICAL	Ι	

	UNIVERSITY		SCIENCES	
M.Phil.,	BHARATHIAR UNIVERSITY	2008	THIN FILM PHYSICS	Ι
Ph.D.,	ANNA UNIVERSITY	2012	PHYSICS	Ι

# **Teaching Experience**

Total Teaching Experience : 8 Years

Position	Institution	Duration
Assistant Professor	Alagappa University	2015-Till Date

PDF/ Visiting Professor: Abroad				
Position	Institution	Duration		
Senior Research Scientist	Division of Physical Metrology, Korea Research Institute of Standards and Science, Daejeon 305-600, South Korea.	2014-2015		
Post-Doctoral Researcher	Department of Nanomaterials and Engineering, Chungnam National University, Daejeon, South Korea.	2013- 2014		

## **Research Experience**

Total Research Experience : 10 Years

Position	Institution / University	Duration
Assistant Professor	Alagappa University	2015-Till Date

Researcher	Korea Research Institute of Standards and Science, South Korea	2014-2015
Researcher	Chungnam National University, Alagappa University	2013-2014

#### Academic and Additional Responsibilities

Position	UniversityBodies	Pe	Period	
rosition	OniversityDoules	From	То	
Deputy Co-		2010		
Ordinator	Industry and Concultancy	2018	Till Date	
Co-Ordinator	Dept. Alumni, Parent Teacher Meet	2015	Till Date	
Co-Ordinator	Dept. Photographic Club	2016	2019	
Co-Ordinator	SWAYAM - MOOC, TN-SET	2018	2024	
Co-Ordinator	Dept. Magazine and AZHAGU Newsletter	2018	2022	
VPP coordinator	Nemam Village, 2017	2017	2017	
Co-ordinator	Non Major Elective	2018	Till Date	
Question paper	In various colleges and universities for UG/PG	2015	2024	
setter	programme			

#### **Areas of Research**

- Preparation of suitable catalysts for energy-related and waste-water treatment applications.
- Supercapacitors, Water splitting, Photocatalytic dye degradation, Hydrogen generation, Nanomaterials, Thin Films.

#### **Patents Granted**

 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. Granted Application, Patent Number 297894.

- Sun Ig Hong, Suresh, J., Yuvakkumar, R., A. Joseph Nathanael., and Sundrarajan, M., Method for Manufacturing ZnONanopowder and ZnONanopowder Manufactured by the Method, Granted Application, Korean Patent Number 10-1617994, Registration No.:1016179940000 Registration Date: 2016.04.27.
- Yuvakkumar, R., Ravi, G., Isacfranklin, M., Hong, S.I., Foo Shini, Thambidurai, M., Cuong Dang, and Dhayalan Velauthapillai.An improved quaternary chalcogenide Cu<sub>2</sub>NiSnS<sub>4</sub> material and a method of manufacture thereof, Indian Patent Ref. No.: 202041055941dt. 23.12.2020, Publication Date: 26/03/2021. Granted Application, Patent Number 389221.
- Yuvakkumar, R., Ravi, G., V. Thirumal, SP Keerthana, and Dhayalan Velauthapillai.A METHOD OF PREPARING MXENE NANOSHEETS, Indian Patent Ref. No.: 202141042819dt. 22.09.2021, Publication Date: 04/03/2022. Granted Application, Patent Number 406697.
- 5. **Yuvakkumar, R.,** Ravi, G., V. Thirumal,SP Keerthana, and Dhayalan Velauthapillai.A METHOD OF PREPARING 3D SI@MXENE/GRAPHENE CRUMBLED SPHERICAL NANOCOMPOSITES, Indian Patent Ref. No.: 202141042818dt. 22.09.2021, Publication Date: 04/03/2022. **Granted Application, Patent Number 447802.**
- 6. **Yuvakkumar, R.,** Ravi, G., Isacfranklin, M., V. Thirumal,PSenthilkumar, and Dhayalan Velauthapillai.HYDROGEN FREE METHOD OF GROWING CARBON NANORODS, Indian Patent Ref. No.: 202141018296dt. 20.04.2021, Publication Date: 21/10/2022. **Granted Application, Patent Number 429753.**
- 7. Yuvakkumar, R., Ravi, G., V. Thirumal, K Dhamodharan, B Saravanakumar, M Thambidurai, Cuong Dang, and Dhayalan Velauthapillai. A METHOD OF PREPARING 3D BIO-ACTIVATED PORES CARBON NANOSHEETS FROM TAMARIND FRUIT SHELLS, Indian Patent Ref. No.: 202241008151dt. 16.02.2022, Publication Date: 04/03/2022. Granted Application, Patent Number 424526.
- 8. **Yuvakkumar, R.,** Ravi, G., Isacfranklin, M., Hong, S.I., and Dhayalan Velauthapillai. A HETEROSTRUCTURED (SmCoO<sub>3</sub>/rGO) MATERIAL AND A METHOD OF MANUFACTURE THEREOF, Indian Patent Ref. No.: 202141008342 dt. 27.02.2021, Publication Date: 02/09/2022. **Granted Application, Patent Number 505881.**
- 9. **Yuvakkumar, R.,** Ravi, G., Isacfranklin, M., and Dhayalan Velauthapillai. AN IMPROVED ELECTRODE WITH SUPERIOR SUPERCAPACITIVE PERFORMANCES AND A METHOD OF MANUFACTURE THEREOF, Indian Patent Ref. No.: 202141013142dt. 25.03.2021, Publication Date: 30/09/2022. **Granted Application, Patent Number 465869.**

**Patents Published** 

1. **Yuvakkumar, R.,** Ravi, G., Isacfranklin, M., and Dhayalan Velauthapillai. MORPHOLOGICAL EVOLUTION OF CARNATION FLOWER LIKE CU2COSNS4 BATTERY TYPE ELECTRODES ANDPREPARATION METHODS THEREOF, Indian Patent Ref. No.: 202241042493 dt. 25.07.2022, **Application Published**.

- 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.
- 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.
- 4. 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**

- 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.
- 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**

- 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.
- 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.

3. A Review of Various Materials under Different Conditions for Degradation, SP Keerthana, **R Yuvakkumar**, G Ravi, Advances in Dye Degradation, 156-166, 2023, Bentham Science, DOI: 10.2174/9789815179545123010010.(ISBN 978-981-5179-55-2).

Research Suj	Research Supervision/Guidance					
Program	of Study	Completed	Ongoing			
	Ph.D	04	04			
	M.Phil	10	-			
	PG	18	06			
Project	UG/ Others	M.Tech - 06	Хх			

## **Publications**

Inte	rnational	Na	ational	Others
Journals	Conferences	Journals	Conferences	Books/Chapters/Monographs/Manuals
288	39	1	15	05
h-index			: 47	
i10 index			:177	
TotalCita	tions		:8016	

#### **Publications**

Thesis Evaluated	:	04
Viva-voce Examiner	:	04

Name of the Extension activity	Conducted at	Period
PhD Viva Examiner	Erode Sengunthar Engineering College	28.07.2023
PhD Viva Examiner	Online	21.10.20
M.Sc Project Viva	Mannar Thirumalai Naicker College	April 2020 17.10.20
M.Phil Dissertation	Bharathiar University	04.10.19
M.Phil Dissertation	Bharathiar University	12.11.19
M.Phil Dissertation	Bharathiar University	13.11.19
PhD Viva Examiner	CN College, Erode	06.03.18
M.Phil Dissertation	Bharathiar University	21.12.16

## **Funded Research Projects**

## **Completed Projects:**

		Period			
S.No	Agency	From	То	ProjectTitle	<b>Budget</b> (Rs.Inlakhs)
1.	MHRD- RUSA	2018	2022	Preparation and optimization of carbon- based nanostructures for energy-storage and conversion applications	10.0
2.	UGC	2016	2018	Development, characterization and cancer targeting potential of bioinspiredmagnetite (Fe <sub>3</sub> O <sub>4</sub> ) nanopowders	6.0

## **DistinctiveAchievements / Awards**

- 1. Young Scientist Award, Academy of Sciences, 2020, Chennai, India
- 2. Young Faculty in Science, Venus International Research Foundation, 2017, India
- 3. LEADING EDUCATIONIST OF INDIA AWARD-2019, Friendship Forum, India.

- 4. **Visiting Fellowship**, 2017-18, 3 months, Jawaharlal Nehru Centre for Advanced Scientific Research, JNCASR, India
- 5. Brain Korea Research Fellowship, 2013-2014, National Research Foundation, South Korea
- 6. **Senior Research Scientist,** University of Science and Technology, 2014-2015, South Korea
- 7. Young Scientist Award, Venus International Research Foundation, 2017, India
- 8. Visiting Scientist, 2019-2020, National Research Foundation, South Korea
- 9. **Dr. APJ ABDUL KALAM AWARD FOR SCIENTIFIC EXCELLENCE-2017,** Marina Labs, Research and Development, Chennai, India.
- 10. **BHARAT EXCELLENCE AWARD** in the Field of Education, Friendship Forum, 2019, India.

Number of Seminars /Conferences /Workshops/ Events Organized:

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

Position	Programme	Duration	Institution
Organizing Secretary	International Virtual Conference of Recent Trends in Energy Materials (INCRTEM)	(9-11, September 2020)	Alagappa University, Karaikudi.
Organizing Secretary	International Conference on Advanced Materials for Sustainable Energy and Sensors	16-17 <sup>th</sup> September, 2019	Alagappa University
Organizing Secretary	National Conference on Advanced Materials for Sustainable Energy and Sensors	20-22 <sup>nd</sup> March, 2019	Alagappa University
Organizing Secretary	National Seminar on Advanced Materials Research	19 <sup>th</sup> January, 2017	Alagappa University

#### Events organized as an active member

- 1. Active Member of Organising Committee, ACT NEXT: Noble prize in Physics 2017 at Department of Physics, Alagappa University on 28th March 2018.
- 2. Active Member of Organising Committee, International Conference on momentous role of nanomaterials in renewable energy devices (ICMNRE 2018) Alagappa University, Karaikudi, 1-2 March 2018
- 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.
- 4. Active Member of Organising Committee, ACT NEXT:Noble prize in Physics 2016 at Department of Physics, Alagappa University on 28th April 2017.
- 5. Active Member of Organising Committee, National Conference on Futuristic Materials (NCFM-2017) at Department of Physics, Alagappa University during 27 & 28th March 2017.
- 6. 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.
- 7. Active Member of Organising Committee, National Theme Meet on University- Industry Interface 2017 (NTM U21-2017), Alagappa University during 20th September 2017.
- 8. 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.
- 9. 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 23-24<sup>th</sup> March, 2016.

#### **Events Participated**

Number of Conferences/Seminars/Workshops:

- **1.** S. Mohammed Eliyas, **R Yuvakkumar**, G Ravi, Microwave synthesis of Magnesium Phosphate-rGO as effective electrode for supercapacitor application, International conference on Advanced Materials for Clean Energy and Health Applications (AMCHEA), Coimbatore Institute of Technology, India. (September 19-20, 2023).
- **2.** SP Keerthana, **R Yuvakkumar**, G Ravi, Iron molybdate nanoparticles for photocatalytic degradation of pollutants, International conference on Advanced Materials for Clean Energy and Health Applications (AMCHEA), Coimbatore Institute of Technology, India. (September 19-20, 2023).

- **3.** P Mohana, **R Yuvakkumar**, G Ravi, ZIF-67 derived hollow N doped carbon encapsulated CoP electrocatalyst for efficient hydrogen evolution reaction, International conference on Advanced Materials for Clean Energy and Health Applications (AMCHEA), Coimbatore Institute of Technology, India. (September 19-20, 2023).
- **4.** N Anisha, **R Yuvakkumar**, G Ravi, Synthesis of BaO/NiO/rGO nanocomposite by facile co-precipitation method for supercapacitor application, International conference on Advanced Materials for Clean Energy and Health Applications (AMCHEA), Coimbatore Institute of Technology, India. (September 19-20, 2023).
- **5.** S. Swathi, **R Yuvakkumar**, G Ravi, Enhanced electrochemical performances of SrMoO<sub>4</sub>/PVP/MWCNTnanocomposites as electrocatalyst for hydrogen evolution reaction, International conference on Advanced Materials for Clean Energy and Health Applications (AMCHEA), Coimbatore Institute of Technology, India. (September 19-20, 2023).
- **6. R Yuvakkumar,** Cu<sub>3</sub>BiS<sub>3</sub> for effective electrochemical HER activity, 11<sup>th</sup> International Conference on Material for Advanced Technologies, SUNTEC, Singapore. (26<sup>th</sup> to 30<sup>th</sup> June 2023).
- SP Keerthana, R Yuvakkumar, G Ravi, Coral Reef Structured Gd2MoO6 with Carbon Composites for the Removal of Toxic Pollutants from Wastewater, 11<sup>th</sup> International Conference on Material for Advanced Technologies, SUNTEC, Singapore. (26<sup>th</sup> to 30<sup>th</sup> June 2023).
- **8.** SP Keerthana, **R Yuvakkumar**, G Ravi, Nd<sub>2</sub>MoO<sub>6</sub> Nanostructures: Development of Photocatalysts for Environmental Remediation Process, 11<sup>th</sup> International Conference on Material for Advanced Technologies, SUNTEC, Singapore. (26<sup>th</sup> to 30<sup>th</sup> June 2023).
- 9. SP Keerthana, R Yuvakkumar, G Ravi, Hydrothermal synthesis of α- SnWO<sub>4</sub> with g-C<sub>3</sub>N<sub>4</sub> nanocomposites for efficient photocatalytic activity on dye degradation 27<sup>th</sup> Annual Technological Advances in Science, Medicine and Engineering Conference, SickKids Hospital, University of Toronto, Canada. (July 1, 2023 – July 2, 2023).
- 10.SP Keerthana, R Yuvakkumar, G Ravi, Hydrothermal synthesis of CeVO<sub>4</sub>/ g-C<sub>3</sub>N<sub>4</sub> Z-Scheme Photocatalyst for Removal of dyes under photocatalysis, 25th National Seminar on Crystal Growth and Applications, Alagappa University, Karaikudi. (June 21, 2023-June 23, 2023)
- 11.P. Mohana, R Yuvakkumar, G Ravi, Enhanced electrochemical performance of CuO/NiO/rGO nanocomposite as efficient electrocatalyst for oxygen evolution reaction,27<sup>th</sup> Annual Technological Advances in Science, Medicine and Engineering Conference, SickKids Hospital, University of Toronto, Canada. (July 1, 2023 – July 2, 2023).
- **12.**P Mohana, **R Yuvakkumar**, G Ravi, Synthesis of hierarchical Ni-MgO/CNT nanocomposite electrocatalyst for high performance hydrogen evolution reaction, 25th

National Seminar on Crystal Growth and Applications, Alagappa University, Karaikudi. (June 21, 2023-June 23, 2023)

- **13.**S Swathi,**RYuvakkumar**, G Ravi, Copper hexacyanoferrate on boron-doped reduced graphene oxide sheets for high-performance OER activity,27<sup>th</sup> Annual Technological Advances in Science, Medicine and Engineering Conference, SickKids Hospital, University of Toronto, Canada. (July 1, 2023 July 2, 2023).
- **14.**S Swathi, **R Yuvakkumar**, G Ravi, Electrocatalytic water oxidation by Hematite/N, S doped reduced graphene oxide composites,25th National Seminar on Crystal Growth and Applications, Alagappa University, Karaikudi. (June 21, 2023-June 23, 2023).
- **15.**M Isacfranklin, **R Yuvakkumar**, G Ravi, Bimetallic composite of Co/Fe-MgO/MWCNT for electrochemical supercapacitor electrodes,27<sup>th</sup> Annual Technological Advances in Science, Medicine and Engineering Conference, SickKids Hospital, University of Toronto, Canada. (July 1, 2023 July 2, 2023).
- **16. R Yuvakkumar**"One-day National level workshop on Patenting and Collaborations with Industries" organized by Industry and Consultancy wing & University Business Collaboration Centre, Alagappa University, Karaikudi. (30th January 2023).
- 17. SP Keerthana, R Yuvakkumar\*, G Ravi, Sr doped TiO2 photocatalyst for removal of basic dye from textile wastewater, 2<sup>nd</sup> International Conference on Multifunctional Materials, Geethanjali College of Engineering and Technology, Keesara, Telangana, India. (22-24, December 2022).
- 18. P. Mohana, R Yuvakkumar\*, G Ravi, Preparation of Co<sub>3</sub>O<sub>4</sub>/g-C<sub>3</sub>N<sub>4</sub> nanocomposite to enrich electrochemical water splitting, 2<sup>nd</sup> International Conference on Multifunctional Materials, Geethanjali College of Engineering and Technology, Keesara, Telangana, India. (22-24, December 2022).
- **19.** SP Keerthana, **R Yuvakkumar**, P Senthil kumar, G Ravi, Dhayalan Velauthapillai, Pure and La-doped Barium ferrite nanoparticles for efficient removal of toxic pollutants, Recent Trends in Clean Technologies for Sustainable Environment (CTSE-2021), SSN College of Engineering, Chennai, (6-7, May 2021)
- **20.** SP Keerthana, **R Yuvakkumar**, P Senthil kumar, G Ravi, Dhayalan Velauthapillai, Nddoped ZrO<sub>2</sub> Photocatalyst for degradation of organic pollutants in wastewater, Recent Trends in Clean Technologies for Sustainable Environment (CTSE-2021), SSN College of Engineering, Chennai, (6-7, May 2021)
- **21.** SP Keerthana, G Ravi, **R Yuvakkumar**, Nickel Iron Oxide Electrocatalysts for Electrochemical Water Splitting Activity, International Conference on Nanoscience and Nanotechnology (ICONN-2021), SRM Institute of Science and Technology, Kattankulathur, (01-03, February 2021)
- **22.** SP Keerthana, **R Yuvakkumar**, P Senthil kumar, G Ravi, Dhayalan Velauthapillai, Pure and La-doped Barium ferrite nanoparticles for efficient removal of toxic pollutants, Recent Trends in Clean Technologies for Sustainable Environment (CTSE-2021), SSN College of Engineering, Chennai, (6-7, May 2021)

- **23.** SP. Keerthana, **R. Yuvakkumar**<sup>\*</sup>, G. Ravi<sup>\*</sup>, DhayalanVelauthapillai<sup>b\*</sup>, Synthesis and characterization of photocatalytic active materials, Technological Advances in Science, Medicine and Engineering (TASME), Canada (3-5, July 2021)
- **24.** SP. Keerthana, , G. Ravi<sup>\*</sup>, **R. Yuvakkumar**, Surfactant influence on Copper molybdate nanoflakes for water oxidation, International virtual conference of Recent Trends in Energy Materials (INCRTEM), Alagappa University, Karaikudi. (9-11, September 2020)
- **25.** S Swathi, **R Yuvakkumar**, P Senthil kumar, G Ravi, Dhayalan Velauthapillai, Gadolinium doped CeO<sub>2</sub> for efficient hydrogen evolution reaction, Recent Trends in Clean Technologies for Sustainable Environment (CTSE-2021), SSN College of Engineering, Chennai, (6-7, May 2021)
- **26.** S Swathi,**RYuvakkumar**, P Senthil kumar, G Ravi, Dhayalan Velauthapillai, HMT concentration effect on CaWO<sub>4</sub> nanostructures for electrochemical HER activity, Recent Trends in Clean Technologies for Sustainable Environment (CTSE-2021), SSN College of Engineering, Chennai, (6-7, May 2021)
- **27.** S Swathi, G Ravi, **R Yuvakkumar**, Electrochemical Behavior of Ethylene Glycol mediated Manganese carbonate nanostructures, International virtual conference of Recent Trends in Energy Materials (INCRTEM), Alagappa University, Karaikudi. (9-11, September 2020)
- **28.** S Swathi, B Jansi Rani, G Ravi, **R Yuvakkumar**, P Kumar, Dhayalan Velauthapillai, B Saravanakumar, E Sunil Babu, Electrochemical Performance of NiS@CuS for water oxidation, International conference on Physics and Chemistry of Materials in Novel Engineering Applications (PCMNEA'20), Kumaraguru college of technology, Coimbatore (6,7, February 2020)
- **29.** S Swathi, B Jansi Rani, G Ravi, **R Yuvakkumar**, Synthesis of mixed phase MoO<sub>3</sub>/Mo<sub>5</sub>O<sub>14</sub> nanostructures for hydrogen evolution reaction (HER) via electrochemical water splitting, 63<sup>th</sup> DAE-Solid State Physics Symposium 2019, DAE convention centre, Bhabha Atomic Research Centre, Mumbai
- **30.** S. Swathi, G. Ravi, **R. Yuvakkumar**, CTAB cationic surfactant assisted NiCo<sub>3</sub> electrocatalyst for electrochemical water splitting applications, International Conference on Nanoscience and Nanotechnology (ICONN-2021), SRM SRM Institute of Science and Technology, Kattankulathur, (01-03, February 2021)
- **31.** S Swathi, B Jansi Rani, G Ravi, R Yuvakkumar, Dopant influence on phase and electrochemical performance of Molybdenum sulfide nanostructures, International Conference on Advanced Materials (ICAM-2019), Nirmalagiri college, Kannur, Kerala, India (12-14, June, 2019)
- **32.** M. Isacfranklin, S. Asaithambi, **R. Yuvakkumar**, G. Ravi, DhayalanVelauthapillai, Role of carbon in quaternary metal sulfide electrodes for supercapacitor applications: A review, Technological Advances in Science, Medicine and Engineering (TASME), Canada (3-5, July 2021)

- **33.** M. Isacfranklin, G. Ravi, **R. Yuvakkumar**, Photoelectrochemical Hydrogen Production, HVL Hydrogen Webinar, Western Norway University of Applied Sciences, Bergen, Norway (11 June 2021)
- **34.** M. Isacfranklin, G. Ravi, **R. Yuvakkumar**, 3D Flower like morphology for energy storage applications, International Virtual Conference on Recent Trends in Energy Materials (INCRTEM-2020), Alagappa University, Karaikudi. (9-11 September 2020)
- **35.** M Isacfranklin, G Ravi, **R Yuvakkumar**, CuCo<sub>2</sub>O<sub>4</sub> electrodes for supercapacitor applications, International Conference on Nanoscience and Nanotechnology (ICONN-2021), SRM SRM Institute of Science and Technology, Kattankulathur, (01-03, February 2021)
- **36.** M Sangeetha Vidhya, G Ravi, **R Yuvakkumar**, Hydrothermal synthesis of ternary metal selenide as a superior electrode material for supercapacitor applications, International Conference on Nanoscience and Nanotechnology (ICONN-2021), SRM SRM Institute of Science and Technology, Kattankulathur, (01-03, February 2021)
- **37.** B. Saravanakumar, B. Jansi Rani, G. Ravi, **R. Yuvakkumar**, Synthesis and characterization of SnO2, Zn-SnO2 & Ag-SnO2 as a pesudocapacitor electrode. International Symposium on Nanomaterials for Clean Energy and Health Applications (ISNCHA-2017), Coimbatore Institute of Technology (CIT)-Coimbatore. (6-8 December 2017)
- **38.** B. Saravanakumar, R.Shobana G. Ravi, **R. Yuvakkumar**, Role of different chelating agent in sysnthesis of copper doped tin oxide (Cu-SnO2) nanopartilces. 2nd International conference on Condensed Matter & Applied Physics (ICC-2017), Govt. Engineering College, Bikaner-Rajastan. (24,25th November 2017).
- 39. B. Saravanakumar, M. Durga, G. Ravi, R. Yuvakkumar\*, Role of NaOH concentration on synthesis and characterization of β-V2O5 nanorods by Solvothermal method. International Conference on International Conference on Renewable Energy Research & Education -RERE-18. (8 - 10 Feb 2018).
- **40.** 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)
- **41.** 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)
- **42.** 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** 

- **43.** B. Jansi Rani, B. Saravanakumar, G. Ravi, **R. Yuvakkumar**, Facile Synthesis of SnO2/α-Fe2O3 Nanocomposite for Supercapacitor Capacitor Applications. 2nd International conference on Condensed Matter & Applied Physics (ICC-2017), Govt. Engineering College, Bikaner-Rajastan (24,25th November 2017)
- **44.** 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)
- **45.** B. Jansi Rani, B. Saravanakumar, G. Ravi, **R. Yuvakkumar**, Photoelectrochemical Performance of Pristine and Sn doped α-Fe2O3 Nanospheres. International Symposium on Nanomaterials for Clean Energy and Health Applications (ISNCHA-2017), Coimbatore Institute of Technology (CIT)-Coimbatore. (6-8 December 2017)
- **46.** 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)
- **47.** B. Jansi Rani, B. Saravanakumar, G. Ravi, **R. Yuvakkumar**, "Physico-Chemical Properties of Hematite Nanostrutures" 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)
- 48. 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)
- **49.** 10th International Conference on Materials for Advanced Technologies on 23-28 June, 2019 in Marina Bay Sands, **Singapore**.
- **50.** International Conference on Advanced Materials for Clean Energy and Health Applications (AMCEHA 2019) on 6-8 February, 2019 in Department of Physics at University of Jaffna, **SriLanka**.
- **51.** B Jansi Rani, **R Yuvakkumar**, 64th DAE Solid State Physics Symposium, organized by: Bhabha Atomic Research Centre, Mumbai, held at Indian Institute of Technology (IIT), Jodhpur at December 18-22, 2019, Rajastan, India
- **52.** B Jansi Rani, **R Yuvakkumar**, 63rd DAE Solid State Physics Symposium on 18-22 December 2018 in Department of Physics, Guru Jambheshwar University of Science & Technology, Hisar, Haryana, India
- **53.** B Jansi Rani, **R Yuvakkumar,** INUP Familiarization Workshop on Nanofabrication Technologies, IIT Bombay, Mumbai (May-22 to 23, 2017)

- **54.** B Jansi Rani, **R Yuvakkumar**, NCPRE Familiarization Workshop on Photovoltaics Technologies, IIT Bombay, Mumbai (May- 24, 2017)
- **55. 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.
- **56. 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.
- **57.** 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.
- **58. 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.
- **59. 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.

#### **Overseas Exposure/Visits**

- 1. 11<sup>th</sup> International Conference on Material for Advanced Technologies, SUNTEC, Singapore. (26<sup>th</sup> to 30<sup>th</sup> June 2023).**RYuvakkumar**, Cu<sub>3</sub>BiS<sub>3</sub> for effective electrochemical HER activity.
- 10<sup>th</sup> International Conference on Materials for Advanced Technologies (ICMAT 2019)Marina Bay Sands, Singapore. 23/06/2019 to 28/06/2019, R. Yuvakkumar, Mn304/ MnSnO3 nanocomposites for supercapacitor applications.
- 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.
- 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.
- 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.
- 6. 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.

### Membership

### **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

#### **Advisory Board**

Year/Period	NameoftheBoS/AdministrativeCommittee / AcademicCommittee	Role
2018	International Conference on Mechanical Manufacturing and Industrial Engineering, MMIE 2018, Kuala Lumpur, Malaysia, International Technical Committee	Advisory Committee Member
2018	International Conference on Advanced Composite Materials, ICACM 2018, Kuala Lumpur, Malaysia	Advisory Committee Member
January 7-9, 2017	2017 International Conference on Materials Engineering and Nano Sciences Singapore, International Technical Committee	Advisory Committee Member

#### Academic Bodies in Other Institutes/Universities

Year/Period	NameoftheBoS/AdministrativeCommittee / AcademicCommittee	Role
2020-2021	Research Advisory Committee Member (External), Mannar Thirumalai Naicker College	Member
2019-2020	Stock Verification, Industrial Chemistry and English & Foreign Languages	Verification Officer

2019	Broad Based BoS, Department of Physics, Alagappa University	Member
2016	DDE Exam, Tiruvananthapuram Centre 58	UR
2017	DDE Exam, Kangeyam Centre 14	UR
2017	DDE Exam, Erode Centre 10, Tirupur Centre 17	UR
2015	DDE Exam, Mangalore Centre 67	UR

#### **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

#### 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

#### Ph.D. Thesis Guided

- 1. No. of PhD Thesis evaluated : 04
- 2. No. of PhD Public VivaVoce Examination conducted : 04

S.No	Name of theScholar	TitleoftheThesis	Year of Completion
1.	M. Isacfranklin	Development of Quaternary Metal Sulphide and Samarium Metal Oxide Electrodes for Hybrid Supercapacitors	2023
2.	M. Sangeetha vidhya	Exploration of transition metal selenide basedcomposite electrodes for the fabrication of asymmetric supercapacitor	2023
3.	B. Jansi Rani	Development of metal oxide-based nanostructures for clean energy production via water splitting approach	2020

4.	B. Saravanakumar	An investigation on binary metal oxide nanomaterials as an efficient electrode for energy storage applications	2020
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## List of Research Articles / Recent Publications

SP Keerthana, R Yuvakkumar, G Ravi, S Arunmetha, M Thambidurai, Dhayalan Velauthapillai	3.8
Magnetically separable rare earth metal incorporated CdFe <sub>2</sub> O <sub>4</sub> photocatalyst for degradation of cationic and azo dyes	
Journal of Molecular Structure, 1302, 137479, 2024.	
C Deepika, R Yuvakkumar, G Ravi, S Arunmetha	3.574
Facile synthesis of chromium oxide composite carbon ( $Cr_2O_3/C$ ) nanostructures by solvothermal route for high performance supercapacitor applications	
Materials Letters, 362, 136158, 2024.	
Vijayakumar Gunasekaran, Harichandran Gurusamy, Ganesan Ravi, Yuvakkumar Rathinam	8.7
Sustainable bio-diesel synthesis and jet-fuel range hydrocarbons from poisonous Abrus Precatorius seed oil over MoO3-HPW/Ga-KIT-6	
Renewable Energy, 120130, 2024.	
Panneerselvam Mohana, MelkiyurIsacfranklin, Rathinam Yuvakkumar, Ganesan Ravi, Lakshmanan Kungumadevi, Sundaramoorthy Arunmetha, Jun Hyun Han, Sun Ig Hong	5.3
Facile Synthesis of Ni-MgO/CNT Nanocomposite for Hydrogen Evolution Reaction	
Nanomaterials, 14, 280, 2024.	
S Swathi, R Yuvakkumar, G Ravi, S Arunmetha, Dhayalan Velauthapillai	7.336
Copper tungsten sulfide nanocubes decorated with rGO/MWCNT for overall water splitting	
Electrochimica Acta, 475, 143685, 2024.	
P Mohana, R Yuvakkumar, G Ravi, S Arunmetha	7.336
Enhanced electrochemical performance of CuO/NiO/rGO for oxygen evolution reaction	
Electrochimica Acta, 473, 143464, 2024.	
S Swathi, <b>R Yuvakkumar</b> , G Ravi, S Arunmetha, A Arun, Dhayalan Velauthapillai	7.1
Bayberry-like Cu <sub>3</sub> BiS <sub>3</sub> with 2D layered nanosheets of rGO and g-C3N4 for effective electrochemical HER activity	

International Journal of Hydrogen Energy, 49, 295-308, 2024.	
P Mohana, S Swathi, <b>R Yuvakkumar,</b> G Ravi, M Thambidurai, Hung D Nguyen	7.1
Co <sub>3</sub> O <sub>4</sub> /g-C <sub>3</sub> N <sub>4</sub> nanocomposite for enriched electrochemical water splitting	
International Journal of Hydrogen Energy, 49, 376-389, 2024.	
P Jeya, SP Keerthana, L Kungumadevi, Yuvakkumar Rathinam, Ravi Ganesan, Asokan Kandasami, TS Senthil	4.1
$\gamma$ -Ray-Induced Photocatalytic Activity of Bi-Doped PbS toward Organic Dye Removal under Sunlight	
ACS omega, 8, 47427–47439, 2023.	
Swathi Srinivasan, Yuvakkumar Rathinam, Ravi Ganesan, Arun Alagarsamy	4.654
Construction of Fe <sub>2</sub> O <sub>3</sub> Nanoparticles Decorated for a Highly Efficient Oxygen Evolution Reaction Activity	
Energy & Fuels, 20, 15976–15985, 2023.	
V Balaji, Sakthivel Perumal, Subramanian Palanisamy, M Karuppaiah, S Asaithambi, Dhayalan Velauthapillai, P Kumar, <b>R Yuvakkumar</b> , G Ravi	6.371
Bio-inspired synthesis of silver nanoparticles and their nanocomposites for antibacterial and anticancer activity: A comparative study	
Journal of Alloys and Compounds, 966, 171503, 2023.	
B Jansi Rani, P Mohana, S Swathi, <b>R Yuvakkumar</b> , G Ravi, M Thambidurai, Hung D Nguyen, Dhayalan Velauthapillai	4.6
Exploration of Bifunctionality in Mn, Co CodopedCuO Nanoflakes for Overall Water Splitting	
International Journal of Energy Research, 6052251, 2023.	
M Isacfranklin, <b>R Yuvakkumar</b> , L Kungumadevi, G Ravi, V Rajendran	7.336
Boron, nitrogen, sulphur heteroatom influence effect on direct growth carbon nanotubes on Ni foam for anode electrodes	
Electrochimica Acta, 468, 142961, 2023.	
M Isacfranklin, <b>R Yuvakkumar</b> , G Ravi, M Thambidurai, Hung D Nguyen, Dhayalan Velauthapillai	8.907
SmNiO <sub>3</sub> /SWCNT perovskite composite for hybrid supercapacitor	
Journal of Energy Storage, 68, 107786, 2023.	
M Isacfranklin, <b>R Yuvakkumar</b> , G Ravi, M Thambidurai, Hung D Nguyen, Dhayalan Velauthapillai	7.336
Perovskite rare earth porous hollow microspheres of SmFeO <sub>3</sub> /MWCNT battery type asymmetric hybrid supercapacitors	
Electrochimica Acta, 461, 142519, 2023.	
S Swathi, <b>R Yuvakkumar,</b> G Ravi, A Arun, Dhayalan Velauthapillai	7.336
Reaction time influence on copper tin sulfide micro flowers for enhanced electrochemical hydrogen evolution	

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Environmental Research, 226, 115651, 2023.	
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Energy & Fuels, 11, 7881–7903, 2023.	
IsacfranklinMelkiyur, <b>Yuvakkumar Rathinam</b> , Ravi Ganesan, M Thambidurai, Hung D Nguyen, Dhayalan Velauthapillai	7.336
Unique hierarchical mesoporous SmMnO <sub>3</sub> /MWCNT for highly efficient energy storage applications	
Electrochimica Acta, 450, 142186, 2023.	
Srinivasan Swathi, <b>Rathinam Yuvakkumar,</b> Ganesan Ravi, MariyappanThambidurai, Hung D Nguyen, Dhayalan Velauthapillai	6.14
Ternary Copper Iron Sulfide Microflowers Anchored on Reduced Graphene Oxide for Water Splitting	
ACS Applied Nano Materials, 6, 6538-6549, 2023.	
MelkiyurIsacfranklin, Yuvakkumar Rathinam, Ravi Ganesan, Dhayalan Velauthapillai	4.1
Direct Growth of Binder-Free CNTs on a Nickel Foam Substrate for Highly Efficient Symmetric Supercapacitors	
ACS omega, 8, 11700-11708, 2023.	
V Thirumal, <b>R Yuvakkumar</b> , P Senthil Kumar, G Ravi, A Arun, Ramesh K Guduru, Dhayalan Velauthapillai	7.1
Heterostructured two dimensional materials of MXene and graphene by hydrothermal method for efficient hydrogen production and HER activities.	
International Journal of Hydrogen Energy, 48, 6478-6487, 2023.	
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Renewable and Sustainable Energy Reviews, 173, 113106, 2023.		
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Neodymium-Doped Novel Barium Tungstate Nanospindles for the Enhanced Oxygen Evolution Reaction		
ACS Omega, 8, 3745-3754, 2023.		
Vijayakumar Gunasekaran, <b>Rathinam Yuvakkumar</b> , Ravi Ganesan, Surya CholayilPalapetta, Harichandran Gurusamy	8.431	
Biological evaluation of polycyclic chalcone based acrylamides in human MCF-7 and HeLa cancer cell lines		
Environmental Research, 222, 115395, 2023.		
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Sr doped TiO <sub>2</sub> photocatalyst for the removal of Janus Green B dye under visible light		
RSC advances, 13, 18779-18787, 2023.		

## Journals with ISSN/ISBN

S. No	Title of the Article	Author(s)	Name of the journal Vol. No. & Page	Internatio nal / National	ISBN / ISSN
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, <b>R.Yuvakkumar</b> and G.Ravi	International Journal of Advance Engineering and Research Development Volume 5, Special Issue 07, April- <b>2018</b>	Ι	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, <b>R.Yuvakkumar</b> and G.Ravi	International Journal of Advance Engineering and Research Development Volume 5, Special Issue 07, April- <b>2018</b>	Ι	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, <b>R. Yuvakkumar</b> and G.Ravi	International Journal of Advance Engineering and Research Development Volume 5, Special Issue 07, April- <b>2018</b>	Ι	2348- 6406
4.	Synthesis and characterization of ZnO Nanoflowers	A. Anusiya, B. Jansi Rani, G. Ravi, <b>R.</b> <b>Yuvakkumar</b>	International Journal of Advance Engineering and Research Development Volume 5, Special Issue 07, April- <b>2018</b>	Ι	2348- 6406
5.	Synthesis and Characterization of γ-Bi <sub>2</sub> O <sub>3</sub> Nanorods	B. Jansi Rani, G. Ravi, <b>R. Yuvakkumar</b>	International Journal of Advance Engineering and Research Development Volume 5, Special Issue 07, April- <b>2018</b>	Ι	2348- 6406

Resource persons in various capacities				
National Conferences	:	5		
InternationalConferences	:	6		
InvitedLectures	:	10		

S. No	Authors/Titleofthepaper/Journal	Impact Factor
1.	S Swathi, B Jansi Rani, G Ravi, <b>R Yuvakkumar</b> , P Kumar, Dhayalan Velauthapillai, B Saravanakumar, E Sunil Babu/ <u>Electrochemical Performance of NiS@ CuS for water</u> <u>oxidation</u> /AIP Conference Proceedings, 2270, 110028, 2020	
2.	M Sangeetha Vidhya, G Ravi, <b>R Yuvakkumar</b> , P Kumar, Dhayalan Velauthapillai, B Saravanakumar, E Sunil Babu/ <u>Cu<sub>2</sub>S electrochemical energy storage applications</u> /AIP Conference Proceedings, 2270, 100011, 2020	
3.	M Isacfranklin, G Ravi, <b>R Yuvakkumar</b> , P Kumar, Dhayalan Velauthapillai, B Saravanakumar, E Sunil Babu/ <u>Cerium doped NiO nanoparticles by hydrothermal method</u> /AIP Conference Proceedings, 2270, 110022, 2020	-

4.	B Jansi Rani, G Ravi, <b>R Yuvakkumar</b> , Dhayalan Velauthapillai, B Saravanakumar, E Sunil Babu/ <u>NiWO<sub>4</sub>@Ni(OH)<sub>2</sub> for electrochemical water splitting</u> /AIP Conference Proceedings, 2270, 110033, 2020	-
5.	M Isacfranklin, G Ravi, <b>R Yuvakkumar</b> , P Kumar, Dhayalan Velauthapillai, B Saravanakumar, E Sunil Babu/ <u>Vanadium oxide nanostructures for electrochemical supercapacitor</u> <u>applications</u> /AIP Conference Proceedings, 2270, 110032, 2020	-
6.	SP Keerthana, B Jansi Rani, G Ravi, <b>R Yuvakkumar</b> , Dhayalan Velauthapillai, B Saravanakumar, E Sunil Babu/ <u>Electrochemical water splitting of Ag-WO<sub>3</sub> nanostructures</u> /AIP Conference Proceedings, 2270, 110031, 2020	-
7.	M Sangeetha Vidhya, B Jansi Rani, G Ravi, <b>R Yuvakkumar</b> / <u>Hydrothermal synthesis of Bare</u> and Ni doped CdO nanostructures for antibacterial applications/AIP Conference Proceedings, 2270, 030091, 2020	-
8.	S Swathi, B Jansi Rani, G Ravi, <b>R Yuvakkumar</b> / <u>Synthesis of mixed phase</u> <u>MoO<sub>3</sub>/Mo<sub>5</sub>O<sub>14</sub> nanostructures for hydrogen evolution reaction (HER) via electrochemical water</u> <u>splitting</u> /AIP Conference Proceedings, 2270, 030653, 2020	-
9.	B Jansi Rani, G Ravi, <b>R Yuvakkumar</b> / <u>Solvothermal optimization of V<sub>2</sub>O<sub>5</sub> nanostructures for</u> <u>electrochemical energy production</u> /AIP Conference Proceedings, 2270, 030619, 2020	-
10.	S. Swathi, B. Jansi Rani, G. Ravi, <b>R. Yuvakkumar</b> /Dopant influence on phase and electrochemical performance of molybdenum sulfide nanostructures/AIP Conference Proceedings 2162, 020110 (2019)	-
11.	BJ Rani, A Anusiya, G Ravi, <b>R Yuvakkumar</b> /Multi-phase CuBi <sub>2</sub> O <sub>4</sub> @CuO@α-Bi <sub>2</sub> O <sub>3</sub> nanocomposite electrocatalyst for electrochemical water splitting application/AIP Conference Proceedings 2115 (1), 030573	-
12.	B Saravanakumar, C Selvam, G Ravi, M Thambidurai, <b>R Yuvakkumar</b> /Role of NaOH concentration on synthesis and characterization of β-V2O5 nanorods by solvothermal method/AIP Conference Proceedings 1992 (1), 040028, 2018	-
13.	BJ Rani, SP Raj, G Ravi, <b>R Yuvakkumar</b> /Surfactant free SnO <sub>2</sub> nanoplate array synthesis for supercapacitor applications/AIP Conference Proceedings 1992 (1), 030007, 2018	-
14.	B. Saravanakumar, A. Anusiya, B. Jansi Rani, G. Ravi, <b>R. Yuvakkumar</b> /Role of different chelating agent in synthesis of copper doped tin oxide (Cu-SnO <sub>2</sub> ) nanoparticles/AIP Conference	-

	Proceedings 1953, 030192 (2018)	
15.	R. Shobana, B. Saravanakumar, G. Ravi, <b>R. Yuvakkumar</b> / Effect of CTAB concentration on synthesis of nickel doped manganese oxide nanoparticles/AIP Conference Proceedings 1953, 030167 (2018); https://doi.org/10.1063/1.5032502	-
16.	B. Jansi Rani, B. Saravanakumar, G. Ravi, <b>R. Yuvakkumar</b> /Facile synthesis of SnO <sub>2</sub> /α-Fe <sub>2</sub> O <sub>3</sub> nanocomposite for supercapacitor capacitor applications/AIP Conference Proceedings 1953, 030111 (2018)	
17.	<b>R. Yuvakkumar</b> , S. I. Hong, Baddeleyite Type Monoclinic Zirconium Oxide Nanocrystals Formation/Advanced Materials Research, 1102, 79-82, 2015	-
18.	J. Suresh, <b>R. Yuvakkumar,</b> M. Sundrarajan, S.I. Hong/Green synthesis of magnesium oxide nanoparticles/Advanced Material Research 952, 141-144, 2014	-
19.	A. Joseph Nathanael, <b>R. Yuvakkumar</b> , Tae Hwan Oh, S.I. Hong/High Aspect Ratio Hydroxyapatite Nanorods Formed by Polymer Assisted Synthesis/Applied Mechanics and Materials Vol. 508, pp. 52-55, 2014	-
20.	J. Suresh, <b>R. Yuvakkumar</b> , A. Joseph Nathanael, M. Sundrarajan, S.I. Hong/Antibacterial and wash durability properties of untreated and treated cotton fabric using MgO and NiO nanoparticles/Applied Mechanics and Materials, Vol. 508, pp. 48-51, 2014	-
21.	R. Yuvakkumar, J. Suresh, and S.I. Hong/Green synthesis of zinc oxide nanoparticles/Advanced Material Research Vol. 952, pp. 137-140, 2014	-
22.	<b>R. Yuvakkumar,</b> J. Suresh, A. Joseph Nathanael, M. Sundrarajan, 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/Applied Mechanics and Materials Vol. 508, pp. 44-47, 2014	-
23.	<b>R. Yuvakkumar,</b> J. Suresh, S.I. Hong/Green synthesis of spinel magnetite iron oxide nanoparticles/Advanced Material Research, 1051, 39-42, 2014	-
24.	R. Suriyaprabha, G. Karunakaran, R. Yuvakkumar, P. Prabu, V. Rajendran/Application of silica nanoparticles for increased silica availability in maize/SOLID STATE PHYSICS: Proceedings of the 57th DAE Solid State Physics Symposium 2012, AIP Conf. Proc. 1512, 424-425, 2013	-