



Dr. R. SIVAKUMAR
Assistant Professor in Physics

Contact

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Scopus ID: [7006050481](#); Orchid ID: [0000-0001-6704-943X](#); Researcher ID: [ABE-7603-2020](#)
Google Scholar ID: [3uLY8kUAAA AJ](#); Vidwan ID: [68091](#)

Academic Qualifications: M.Sc., M.Phil., Ph.D.

Degree	Subject	Name of the University	Year of Passing	Percentage of marks obtained	Division /Class/ Grade
B.Sc.	Physics	Bharathidasan University	April 1999	65.0	First
M.Sc.	Physics	Bharathidasan University	April 2001	71.8	First
M.Phil.	Physics	Alagappa University	May 2002	72.2	First
Ph.D.	Physics	Alagappa University	April 2006	Highly commended	

Teaching Experience: 12 Years

Teaching Experience: Alagappa University, Karaikudi, from February 2009 to till date.

Designation	Department	Date of actual Joining		Grade
		From	To	
Assistant Professor in Physics (Stage 1)	Directorate of Distance Education, Alagappa University	24.02.2009	05.03.2013	Stage 1
Assistant Professor in Physics (Stage 2)	Directorate of Distance Education, Alagappa University	06.03.2013	09.03.2016	Stage 2
Assistant Professor in Physics (Stage 2)	Department of Physics, Alagappa University	10.03.2016	05.03.2018	Stage 2
Assistant Professor in Physics (Stage 3)	Department of Physics, Alagappa University	06.03.2018	25.02.2020	Stage 3
Assistant Professor in Physics (Stage 3)	Directorate of Distance Education, Alagappa University	26.02.2020	Till date	Stage 3

Research Experience: 18 Years

Name of the Position	University/Institution	Nature of duty	Period
Young Scientist Awardee (Tamilnadu State Council for Science & Technology)	Institute of Physics, Bhubaneswar, India	Research and Development	June to August, 2011
Assistant Professor	Alagappa University, Karaikudi, India	Teaching, Research and Development	February 2009 to Till date
Post-Doctoral Researcher	Nagaoka University of Technology, Nagaoka, Japan	Research and Development	December, 2007 to February, 2009
Post-Doctoral Fellow	National Taiwan University, Taipei, Taiwan	Research and Development	November, 2006 to October, 2007
Post-Doctoral Fellow	Institute of Physics, Bhubaneswar, India	Research and Development	December, 2005 to October, 2006
Senior Research Fellow	Alagappa University, Karaikudi, India	Research and Development	April to November, 2005

Academic / Administrative Responsibilities in the Department / University

1. **Committee Member:** Assisting to the Department as one of the committee members for the successful completion of various Departmental activities.
2. **University Representative:** Visited various examination centers in India to oversee the conduct of Alagappa University Distance Education Examinations (May 2009 onwards).
3. **Coordinator** for assisting the Nodal officer/Convener with regard to Re-Accreditation process for Alagappa University from NAAC during June 2009.
4. **Doctoral Committee Member** to conduct the Interview for the candidates appearing for Ph.D. Pre-Registration Qualifying Entrance Examination in the Department of Physics, Alagappa University from February 2010 onwards.
5. **Stock Verification Officer** for Physical Verification of Stocks in various Departments of Alagappa University during April 2011, June 2012, April 2013, and November 2019.
6. **Event Coordinator:** Acted as an event coordinator/manager in organizing the Alagappa University Talent Exhibit Show (held during the years October 2014, October 2015, October 2018, October 2019), Alagu Aaram (during March 2015), ALU State Fest (during March 2017), and 35th Inter University South Zone Youth Festival (held at Alagappa University during December 2019).
7. **Co-ordinator:** Acting as a Co-ordinator for M.Sc. (Physics) programme offered under Directorate of Distance Education, Alagappa University from the Academic year 2015-2016 onwards.
8. **Board of Studies Member:** Acted as a Member of the Board of Studies in Physics of Directorate of Distance Education, Alagappa University for a period of three years (from September 2015 to September 2018).
9. **Committee Member:** One of the committee members in organizing the Alagappa University Founder's day Celebration held during the years April 2016, April 2017, April 2018, and April 2019.
10. **Chairman of Question Paper Setting/Scrutiny Board** for the courses of M.Sc. Physics (Distance Education) programme of Alagappa University from March 2017 onwards.
11. **Coordinator** for the preparation of Programme Project Report (**Revised Curriculum**) for M.Sc. Physics (Open Distance Learning Mode) Programme of Alagappa University based on UGC-DEB 2017 Regulations.

12. **Committee Member:** One of the committee members in organizing the 30th Convocation of Alagappa University held on 11.12.2017.
13. **Member of the Squad Team** for Affiliated College Examination of Alagappa University during April 2018.
14. **Department Level Coordinator** to oversee the NIRF Ranking (2018-2019) and RUSA Phase 2.0 Scheme (2018-2019 onwards) related activities of Department of Physics.
15. **Rapporteur** for Learner Support Centre of Directorate of Distance Education, Alagappa University from the Academic year 2019-2020 onwards.
16. **Board of Studies Member:** Acting as a Member of the Board of Studies in Physics of Directorate of Distance Education, Alagappa University for a period of three years (from November 2019 to November 2022).
17. **Nodal Officer:** Acted as a Nodal Officer to coordinate the Online Examinations of Directorate of Distance Education, Alagappa University held during May 2020, December 2020 and May 2021.
18. **Department Level Coordinator** to oversee the CIQA related activities of Directorate of Distance Education (June 2020 onwards).

Academic Responsibilities in Other Institutions

- ❖ **Doctoral Committee Member:** Acting as a DC member for the Ph.D. scholars working in Anna University, Chennai (from 2015 to 2019) and SASTRA Deemed to be University, Thanjavur (2019 onwards).
- ❖ **Assessment Committee Member/External Expert** for the Project Fellow Assessment/Selection Meeting held at Central Electrochemical Research Institute, Karaikudi (September 2016, November 2018) and Pondicherry University, Pondicherry (April 2017).

Areas of Research

- ❖ Materials Science - Thin films
- ❖ Studies on the properties of transition metal oxide thin films for electrochromic device and gas sensors
- ❖ Semiconductor materials for solar cell
- ❖ Various forms of nanostructures by solution route for photocatalytic application
- ❖ Ion beam induced studies

Research Supervision / Guidance

Program of Study		Completed	On-going
Research	Ph.D.	7	4
	M.Phil.	10	-
Project	PG	26	-
	UG / Others	-	-

Publications (as on 15.08.2021)

International		National		Others
Journals (SCI)	Conferences	Journals	Conferences	Books / Chapters / Monographs / Manuals
100	81	--	62	7

Cumulative Impact Factor (as per JCR) : 228.669

h-index : 23 (as per Scopus database)
: 24 (as per Google Scholar database)

i10 index : 48 (as per Google Scholar database)

Total Citations : 1621 (as per Scopus database)
: 2007 (as per Google Scholar database)

Funded Research Projects

Completed Projects

S. No.	Agency	Period		Project Title	Budget (Rs. In lakhs)
		From	To		
1	Alagappa University	30.09.2009	30.09.2010	Growth of ZnO nanostructures by aqueous solution growth method <i>(Ref.: A13/AURF/2009, dt. 30.09.2009)</i>	0.64
2	Department of Science and Technology	01.11.2010	31.10.2013	Preparation and characterization of electrochromic oxide thin films for electrochromic device <i>(Ref.: SR/FTP/PS-32/2009, dt. 11.10.2010)</i>	19.95
3	University Grants Commission	01.04.2013	31.03.2017	Studies on diluted magnetic semiconductor thin film prepared by chemical methods <i>(Ref.: F.No.42-818/2013 (SR), dt. 22.03.2013)</i>	12.44

On-going Projects

S. No.	Agency	Period		Project Title	Budget (Rs. In lakhs)
		From	To		
1	Theme Based Research Project under RUSA Phase 2.0	September 2018	Till date	Advanced Nanomaterials for Sustainable Energy and Sensor Applications	5.00 (as First installment)

Distinctive Achievements / Awards / Honours

1. **Best Paper Presentation Award** from Indian Science Congress Association (ISCA) (Chennai chapter), Kolkatta, India, during the year 2005. (Certificate and Memento)

2. **Senior Research Fellowship** (Direct Awardee, CSIR-SRF), awarded by Council of Scientific and Industrial Research (CSIR), New Delhi, India (April – November 2005).
3. **Post-Doctoral Fellowship**, awarded by Institute of Physics, Bhubaneswar, India (December, 2005 – October, 2006).
4. **Post-Doctoral Fellowship**, awarded by National Taiwan University, Taipei, Taiwan (November, 2006 – October, 2007).
5. **Post-Doctoral Fellowship**, awarded by Nagaoka University of Technology, Nagaoka, Japan (December, 2007 – February, 2009).
6. **Young Scientist Award for the year 2010-2011**, from Tamilnadu State Council for Science and Technology (TNSCST), Chennai.
7. **Alagappa Excellence Award for Research for the year 2015-2016**, from Alagappa University, Karaikudi. (Certificate, Citation, Memento, Gold Metal and Cash Award of Rs. 15,000)
8. **Outstanding Contribution in Reviewing for the year March 2017**, from The Editors of Materials Chemistry and Physics, Elsevier, Amsterdam, The Netherlands. (Certificate)
9. **Certificate of Appreciation for the year 2018**, from Alagappa University, Karaikudi, in recognition of significant service for the growth and development of the University. (Certificate)
10. **Young Scientist Award in Physical Sciences for the year 2018 (YSA-2018)** from The Academy of Sciences, Chennai, in recognition of research contributions in the field of Materials Science. (Certificate, Shield, and Cash Award of Rs. 10,000)
11. **Outstanding Contribution in Reviewing for the year August 2018**, from The Editors of Journal of Alloys and Compounds, Elsevier, Amsterdam, The Netherlands. (Certificate)
12. **I have been ranked in 12th place** (*out of 183 Faculty Members*) in the Alagappa University Publication Statistics of Faculty Members in *Scopus database*, as on 10.07.2019 (as per the data of NIRF cell of Alagappa University).
13. **I have been ranked in 13th place** (*out of 183 Faculty Members*) in the Alagappa University Publication Statistics of Faculty Members in *Web of Science database*, as on 10.07.2019 (as per the data of NIRF cell of Alagappa University).

14. **I have been ranked in 9th place** (*out of 193 Faculty Members*) in the Alagappa University Publication Statistics of Faculty Members in *Scopus & Web of Science database*, as on 30.06.2020 (as per the data of NIRF cell of Alagappa University).
15. **Vallal Alagappan Research Recognition Award for the year 2020**, from Alagappa University, Karaikudi, in recognition of research contribution towards the enhancement of Research Outcome of the University in the form of “h” index. (Certificate)
16. **Reviewer** – Reviewing research articles for the reputed journals published in Elsevier Publication, Institute of Physics (IOP) Publication, American Institute of Physics (AIP) Publication, Royal Society of Chemistry (RSC) Publication, American Chemical Society (ACS) Publication, Springer Publication, and Wiley Publication.
17. **Reviewer for DDE Course Materials** – Reviewed the Course Materials of M.Sc. Physics Programme offered by the Directorate of Distance Education, Alagappa University, Karaikudi.

The following Course Materials were Reviewed:

- ❖ Mathematical Physics – I (Course Code: 34512)
- ❖ Mathematical Physics – II (Course Code: 34522)
- ❖ Microprocessor and Electronic Instrumentation (Course Code: 34533)
- ❖ Advanced Electronics and Physics Laboratory – III (Course Code: 34534)
- ❖ Nuclear and Particle Physics (Course Code: 34542)

Distinctive Citations for Our Articles

- ❖ **One of our research articles** (*Optical Materials* 29 (2007) 679) is **Ranked 12th place in the Science Direct top 25 hottest articles** within the journal **Optical Materials** (January – March 2007).
- ❖ **One of our research articles** (*J. Cryst. Growth* 310 (2008) 3403) is **Ranked 6th place in the Science Direct top 25 hottest articles** within the journal **J. Cryst. Growth** (July – September 2008).
- ❖ **One of our research articles** (*Physica B: Condens. Matter* 452 (2014) 1.) is **Ranked 25th place in the Science Direct top 25 hottest articles** within the journal **Physica B: Condens. Matter** (October – December 2014).

Events Organized in Leading Roles

Number of Seminars / Conferences / Workshops / Events organized: 03

- ❖ **Co-Organizing Secretary** for the “International Conference on Advanced Materials for Sustainable Energy and Sensors”, held during September 16-17, 2019, Organized by the Department of Physics, Alagappa University, Karaikudi.
- ❖ **Organizing Secretary** for the “One Day International Webinar on Advances in Materials Science” held on June 10, 2020, Organized by the Directorate of Distance Education and Department of Physics, Alagappa University, Karaikudi.
- ❖ **Co-Organizing Secretary** for the “International Virtual Conference on Recent Trends in Energy Materials”, held during September 09-11, 2020, Organized by the Department of Physics, Alagappa University, Karaikudi.

Events Participated

Conferences / Seminars / Workshops / Webinars: 73

- ❖ Number of National Conferences / Seminars / Workshops Participated: 46
- ❖ Number of International Conferences / Seminars / Workshops Participated: 27

Other Training Programs

1. Participated in the UGC sponsored 66th Orientation Programme held at UGC-Academic Staff College, Bharathidasan University, Tiruchirappalli, Tamilnadu, during November 08 - December 06, 2010.
2. Participated in the UGC sponsored Refresher Course in Physics held at UGC-Academic Staff College, Bharathidasan University, Tiruchirappalli, Tamilnadu, during November 20 - December 10, 2012.
3. Participated in the UGC sponsored Refresher Course in Physics held at UGC-Human Resource Development Centre, Bharathidasan University, Tiruchirappalli, Tamilnadu, during February 17 - March 08, 2016.
4. Participated in the UGC sponsored Short Term Course in Research Methodology held at UGC-Human Resource Development Centre, Bharathidasan University, Tiruchirappalli, Tamilnadu, during February 15 - 21, 2019.

5. Participated in the activity, "Anti-plastic campaign rally at villages", of MHRD-UGC Initiative Swachhta Hi Seva, Swachhta Pakhwada, Rashtriya Poshan Maah & Jal Shakti Abhiyan programmes organized by Alagappa University, Karaikudi, during July 01 - November 30, 2019.
6. Participated in the UGC sponsored Short Term Course in Curriculum Development & Evaluation held at UGC-Human Resource Development Centre, Bharathidasan University, Tiruchirappalli, Tamilnadu, during January 07 - 13, 2020.

Overseas Exposure / Visits

1. National Taiwan University, Taiwan, Post-Doctoral Fellowship, during November, 2006 to October, 2007.
2. Nagaoka University of Technology, Japan, Post-Doctoral Fellowship, during December, 2007 to February, 2009.
3. Tokyo University of Technology, Japan, Annual Meeting of The Ceramic Society of Japan 2009, during March 14-22, 2009.

Membership in

Professional Bodies

1. Indian Science Congress Association, India (Life Member, Membership No.: L14691)
2. Materials Research Society of India, India (Life Member, Membership No.: LMB1597)
3. Ceramic Society of Japan, Japan (Annual Member; 2008-2009)
4. Indian Society of Atomic and Molecular Physics, India (Life Member; Membership No.: 1600)
5. Society for Advancement of Electrochemical Science and Technology, India (Life Member; Membership No.: LF20180113)
6. Solar Energy Society of India, India (Life Member)
7. Indian Society for Electro Analytical Chemistry, India (Life Member; Membership No.: LM 278)

Editorial Board

1. **Guest Editor** for the Special issue on Conductive Polymers and their Applications of the journal Smart Materials Research
2. **Co-Editor** for the Proceedings of the National Conference on Futuristic Materials (ISBN: 978-81-791229-2-1), Published by Universal Publishers, Chennai, 2017.
3. **Co-Editor** for the Proceedings of the International Conference on Momentous Role of Nanomaterials in Renewable Energy Devices (ISBN: 978-81-934473-2-1), Published at Alagappa University, Karaikudi, 2018.
4. **Co-Editor** for the Proceedings of the National Conference on Advanced Materials for Sustainable Energy and Sensors (ISBN: 978-81-920462-0-4), Published by Educational Publication Trust, Karaikudi, 2019.
5. **Co-Editor** for the Proceedings of the International Conference on Advanced Materials for Sustainable Energy and Sensors (ISBN: 978-81-92046235), Published by Educational Publication Trust, Karaikudi, 2019.
6. **Co-Editor** for the Proceedings of the International Virtual Conference on Recent Trends in Energy Materials (ISBN: 978-81-92046235), Published by Educational Publication Trust, Karaikudi, 2020.

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

1. **Board of Studies Member:** Acted as a Member of the Board of Studies in Physics of Directorate of Distance Education, Alagappa University for a period of three years (from September 2015 to September 2018).
2. **Board of Studies Member:** Acting as a Member of the Board of Studies in Physics of Directorate of Distance Education, Alagappa University for a period of three years (from November 2019 to November 2022).
3. **Scientific and Technical Committee Member** for various National/International Conferences, Seminars, Workshops, Symposiums and Webinars.

Resource Person in Various Capacities

Number of Invited / Special Lectures delivered: 21

S. No.	Name of the Conference / Seminar / Workshop	Name of the Institution	Nature of the duty	Date
1.	National Conference on Recent Trends in Crystal Growth, Thin Films and Nano-Structured Materials	Aditanar College of Arts and Science, Tiruchendur	Invited Talk	August 6, 2009
2.	Conference on Crystal Growth Science and Technology in Tamil (Padiga Valarchi Ariviyal Thozhilnutpa Karuththarangu)	Anna University, Chennai	Invited Talk (Presentation in Tamil Language)	October 18-19, 2010
3.	XVI National Seminar on Crystal Growth	Aditanar College of Arts and Science, Tiruchendur	Invited Talk	January 20, 2012
4.	Workshop on Preparation, Characterization of Crystalline Materials and their Applications	Anna University, Chennai	Invited Talk	July 16-17, 2012
5.	State Level Seminar on Nanomaterials	V.V.Vanniaperumal College for Women, Virudhunagar	Invited Talk	February 05, 2013
6.	One day Workshop on Physical Vapour Deposition	Alagappa Chettiar College of Engineering and Technology, Karaikudi	Invited Talk	March 04, 2014
7.	Summer Research Training Programme 2015	Bishop Heber College, Tiruchirappalli	Invited Talk	May 18, 2015
8.	Workshop on Preparation, Characterization of Crystalline Materials and their Applications	Anna University, Chennai	Invited Talk	November 26-27, 2015
9.	First International Conference on Advanced Materials for Power Engineering	Mahatma Gandhi University, Kottayam, Kerala, India, in association with Wroclaw University of Technology, Poland	Invited Talk and Chaired the Sessions	December 11-13, 2015.

10.	TEQIP - II Sponsored Faculty Development Programme on Recent Developments in Material Science	Alagappa Chettiar College of Engineering and Technology, Karaikudi	Invited Talk	August 09, 2016
11.	Special Lecture Organized by Physics Association	Jamal Mohamed College, Trichy	Special Lecture	September 26, 2016
12.	National Seminar on Educational Practices in Chola Kingdom (850-1279 AD)	Alagappa University, Karaikudi	Chaired the Session	October 06-07, 2016
13.	Second International Conference on Advanced Materials for Power Engineering	Mahatma Gandhi University, Kottayam, Kerala, India, in association with Wroclaw University of Technology, Poland	Invited Talk and Chaired the Session	November 11-13, 2016
14.	National Seminar on Advanced Materials Research	Alagappa University, Karaikudi	Chaired the Session	January 19, 2017
15.	UGC Sponsored 21 st National Seminar on Crystal Growth and Applications	National College, Tiruchirappalli	Chaired the Session	March 6-8, 2017
16.	Two days International Conference on Renewable Energy Science and Technology	Alagappa University, Karaikudi	Chaired the Session	March 10-11, 2017
17.	UGC Sponsored National Conference on Human Rights Education	Alagappa University, Karaikudi	Chaired the Session	March 14-15, 2017
18.	Alagappa University Celebrates Themed Nobel Excellence Talks-2016	Alagappa University, Karaikudi	Chaired the Session	April 28, 2017
19.	AICTE-QIP Sponsored Faculty Development Programme on Thin Film Deposition and Characterization	Alagappa Chettiar College of Engineering and Technology, Karaikudi	Invited Talk	November 23, 2017
20.	22 nd National Seminar on Crystal Growth and Applications	Sacred Heart College, Tirupattur	Invited Talk and Chaired the Session	January 29-31, 2018

21.	Research Orientation Programme for Aspirants in Materials Characterization for Device Applications	Bishop Heber College, Trichy	Resource Person	February 17, 2018
22.	Special Lecture Organized by Physics Association	Jamal Mohamed College, Trichy	Special Lecture	February 20, 2018
23.	International Conference on Momentous Role of Nanomaterials in Renewable Energy Devices	Alagappa University, Karaikudi	Chaired the Session	March 01-02, 2018
24.	National Conference on Advanced Materials for Sustainable Energy and Sensors	Alagappa University, Karaikudi	Chaired the Session	March 20-22, 2019
25.	Summer Training Programme on Materials Science	Bishop Heber College, Trichy	Invited Talk	May 30, 2019
26.	International Conference on Advanced Materials for Sustainable Energy and Sensors	Alagappa University, Karaikudi	Chaired the Session	September 16-17, 2019
27.	International Webinar Series on Recent Advances in Science and Technology	Bannari Amman Institute of Technology, Sathyamangalam	Invited Talk	July 25, 2020
28.	International Virtual Conference on Recent Trends in Energy Materials	Alagappa University, Karaikudi	Chaired the Session	September 09-11, 2020
29.	4 th International Conference on Recent Trends in Applied Science and Technology in Tamil (Virtual mode)	Bharathidasan University, Trichy	Invited Talk and Chaired the Session	December 26-29, 2020

Research Guidance for Ph.D. Degree (completed)

- ❖ No. of Ph.D. Thesis Evaluated: 10
- ❖ No. of Ph.D. Public Viva Voce Conducted: 10 (as Convener/External Examiner)

S.No.	Name and Reg. No.	Title of Thesis	Remarks
1.	Dr. N. Usha (Reg. No.: 0154 dt. 20.02.2010)	Preparation and characterization of pure and doped niobium oxide (Nb ₂ O ₅) thin films for device applications	Thesis submitted on 10.11.2014 and Viva-voce completed on 28.03.2015
2.	Dr. K.S. Usha (Reg. No.: 0238 dt. 28.09.2010)	Preparation of electrochromic metal oxide thin films by physical technique and their characterization for device applications	Thesis submitted on 08.06.2015 and Viva-voce completed on 19.11.2015
3.	Dr. K. Punitha (Reg. No.: 0246 dt. 05.10.2010)	Pure and doped II-VI chalcogenide semiconducting thin films: preparation and characterization for device application	Thesis submitted on 23.09.2015 and Viva-voce completed on 17.03.2016
4.	Dr. M. Girish (Reg. No.: 0463 dt. 09.02.2012)	Deposition and characterization of diluted magnetic semiconductor thin films	Thesis submitted on 21.09.2016 and Viva-voce completed on 17.02.2017
5.	Dr. T. Dhandayuthapani (Reg. No.: 0856 dt. 04.02.2014) Nanoscience & Technology - Physics (Interdisciplinary) Co-Supervisor	Studies on pure and doped TiO ₂ thin films for efficient electrochromic and room temperature gas sensor applications	Thesis submitted on 18.06.2018 and Viva-voce completed on 23.11.2018
6.	Dr. S. Ponmudi (Reg. No.: 0911 dt. 06.05.2014)	Synthesis and characterization of radio frequency magnetron sputtered mixed metal oxide thin films for gas sensing application	Thesis submitted on 10.04.2019 and Viva-voce completed on 28.09.2019

100. A. Carolin Amala, R. Vignesh, G.V. Geetha, **R. Sivakumar**; Electrochromic behavior of vanadium pentoxide thin films prepared by a sol-gel spin coating process, *Phys. Status Solidi A* (In press, 2021) (IF: 1.981).
99. G.V. Geetha, SP. Keerthana, K. Madhuri, **R. Sivakumar**; Effect of solvent volume on the properties of ZnWO₄ nanoparticles and their photocatalytic activity for the degradation of cationic dye, *Inorganic Chem. Commun.* 132, **2021**, 108810-7. (IF: 2.495).
98. Ranveer Singh, **Rengasamy Sivakumar**, Sanjeev Kumar Srivastava, Topobrata Som; Carrier selective MoO_x/Si heterojunctions: Role of thickness, *Appl. Surf. Sci.* 564, **2021**, 150316-8. (IF: 6.707).
97. S.R. Cynthia, **R. Sivakumar**, C. Sanjeeviraja; Ternary CuO:SnO₂:ZnO (1:1:1) composite thin film for room temperature gas sensor application, *Optik* 234, **2021**, 166615-14. (IF: 2.443).
96. G.V. Geetha, **R. Sivakumar**, C. Sanjeeviraja, V. Ganesh; Photocatalytic degradation of methylene blue dye using ZnWO₄ catalyst prepared by a simple co-precipitation technique, *J. Sol-Gel Sci. Technol.* 97, **2021**, 572-580. (IF: 2.326)
95. R. Vignesh, VP. Brintha Mathy, G.V. Geetha, **R. Sivakumar**, C. Sanjeeviraja; Temperature induced thermochromism of m-BiVO₄ thin films prepared by sol-gel spin coating technique, *Matter. Lett.* 285, **2021**, 129200-5. (IF: 3.423)
94. M. Girish, **R. Sivakumar**, C. Sanjeeviraja; Tuning the properties of Cd_{1-x}Mn_xS films deposited by nebulized spray pyrolysis, *Optik* 227, **2021**, 166088-15. (IF: 2.443).
93. R. Vignesh, **R. Sivakumar**, C. Sanjeeviraja; A detailed analysis on optical parameters of spinel structured Mn₃O₄ thin films deposited by nebulized spray pyrolysis technique, *Opt. Mater.* 111, **2021**, 110580-11. (IF: 3.08).
92. T. Dhandayuthapani, **R. Sivakumar**, D. Zheng, H. Xu, R. Ilangoan, C. Sanjeeviraja, J. Lin; WO₃/TiO₂ hierarchical nanostructures for electrochromic applications, *Mater. Sci. Semicond. Proc.* 123, **2021**, 105515-6. (IF: 3.927).
91. S.R. Cynthia, **R. Sivakumar**, C. Sanjeeviraja, C. Gopalakrishnan, K. Jeyadheepan; Sputtering power and annealing effects on the properties of Zn₂SnO₄-SnO₂ composite thin film for pungent smelling gas (NH₃) detection, *Phys. Status Solidi A* 217, **2020**, 2000512-12. (IF: 1.981).

90. S.R. Cynthia, **R. Sivakumar**, C. Sanjeeviraja, C. Gopalakrishnan, K. Jeyadheepan; Room temperature ammonia gas sensing characteristics of copper oxide-tin oxide composite thin films prepared by radio frequency magnetron sputtering technique, *J. Mater. Sci.: Mater. Electron.* 31, **2020**, 18018-18036. (IF: 2.478).
89. G.V. Geetha, **R. Sivakumar**, Y. Kuroki, C. Gopalakrishnan, C. Sanjeeviraja; Structural and optical properties of CoWO₄ nanoparticles synthesized by co-precipitation technique, *AIP Conf. Proc.* 2265, **2020**, 030094-4. (IF: 0.385).
88. S. Ponmudi, **R. Sivakumar**, C. Sanjeeviraja, C. Gopalakrishnan, T. Okamoto; Development of room temperature sensor based on high quality rhombohedral Al₂O₃:Cr₂O₃ (1:1) thin film with bone like morphological feature for ultrasensitive detection of NH₃ gas, *J. Mater. Sci.: Mater. Electron.* 31, **2020**, 10123-10141. (IF: 2.478).
87. Ranveer Singh, **R. Sivakumar**, S.K. Srivastava, Tapobrata Som; Growth angle-dependent tunable work function and optoelectronic properties of MoO_x thin films, *Appl. Surf. Sci.* 507, **2020**, 144958-9. (IF: 6.182).
86. T. Dhandayuthapani, **R. Sivakumar**, R. Ilangovan, C. Sanjeeviraja, K. Jeyadheepan, C. Gopalakrishnan, P. Sivaprakash, S. Arumugam; Brown coloration and electrochromic properties of nickel doped TiO₂ thin films deposited by nebulized spray pyrolysis technique, *Thin Solid Films* 694, **2020**, 137754-10. (IF: 2.030).
85. G.V. Geetha, **R. Sivakumar**, Vanga Ganesh, C. Sanjeeviraja; Properties of polymeric surfactant mediated ZnWO₄ nanoparticles for photocatalytic application, *AIP Conf. Proc.* 2162, **2019**, 020112-6. (IF: 0.385).
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Photograph during the Award Ceremony (AEAR 2015-2016)



The Alagappa University has honored Dr. R. Sivakumar, with “Alagappa Excellence Award for Research” for the Year 2015-2016 in recognition of his research contributions to the field of Materials Science. Prof. Dr. S. Subbiah, former Vice-Chancellor, Alagappa University, Karaikudi, presented the award to Dr. R. Sivakumar at a function held at the Alagappa University on 06.04.2016. Dr. R. Sivakumar was one of the ten faculty members from Alagappa University who were honored with Alagappa Excellence Award in various disciplines. (Dr. R. Sivakumar: 1st from Right side).

Photographs during the Award Ceremony (YSA-2018)



The Academy of Sciences, Chennai, has honored Dr. R. Sivakumar, with “Young Scientist Award” (YSA-2018) in Physical Sciences for the Year 2018 in recognition of his research contributions to the field of Materials Science. Dr. T. Ramasami, former Secretary, Department of Science and Technology, Government of India, presented the award to Dr. R. Sivakumar at a function held at the University of Madras, Chennai on 15.03.2019. Dr. R. Sivakumar was one of the six scientists from Tamilnadu who were honored with YSA-2018 in various disciplines.



Prof. Dr. N. Rajendran, former Vice-Chancellor, Alagappa University, Karaikudi, congratulated Dr. R. Sivakumar on his great achievement (YSA-2018).

R. Sivakumar's Profile as of August 15, 2021