CURRICULUM VITAE

Dr. Shanmugasundaram Sakthivel

Designation:
Centre Head & Scientist G

Department:
Centre for Solar Energy Materials (CSEM)

Institution:
International Advanced Research Centre for Powder Metallurgy and New Materials (ARCI)

Address:
RCI Road, Balapur (PO) Hyderabad-500 005, Telangana State, India

Education:
PhD (Heterogeneous Photocatalysis), MSc (Applied Chemistry), BSc (General Chemistry)

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+91-9490760104 & 040-24452454

Research Interests:

- Solar energy materials, Functional coatings, Nanostructure materials, Energy Storage Materials, Fabrication of Electrodes for Green Hydrogen, Visible/Daylight/UV Photocatalysis.

Academic background:

- **B.Sc.** in General Chemistry, St. Joseph's College, Bharathidasan University, Tiruchirappalli (June 1988 - May 1991)
- **M.Sc.** in Applied Chemistry, Anna University, Chennai (June 1991- May 1993)

- **Ph.D.** in Heterogeneous Photocatalysis, Department of Chemistry, Anna University, Chennai (Jan 1995- May 1999) & the Technical University of Clausthal, Germany under DAAD Fellowship (May 1999 – Sep 2001)

Professional Experience:

Total Research & Administrative Experience: 30 years, including over 10 years of administrative experience.

Present Designation & Organisation:

Scientist G & Centre Head, CSEM, ARCI, Hyderabad

S.I	Period of Service (dd/mm/yyyy)		Name of organization	Post held
	From	To		
1.	Oct 2009	Present	**ARCI**, Hyderabad, India	**Senior Scientist to Scientist G**, Centre for Solar Energy Materials
2.	Jan 2006	Apr 2009	**INM Leibniz-Institute for New Materials research,** Saarbrucken, Germany	**Research Scientist**
3.	Nov 2001	May 2006	**Institute for Inorganic Chemistry, Friedrich-Alexander-University**, Erlangen-Nurenberg, Germany	**Postdoctoral Researcher**
4.	Oct 2000	Sep 2001	**Institute for Solar Energy Research Hameln (ISFH)**, Emmerthal/Hannover Germany	**DAAD Researcher** (Extension Period)
5.	Oct 1999	Sep 2000	**Institute for separation and process technology,** Technical University of Clausthal, Clausthal-Zellerfeld, Germany	**DAAD Researcher**
6.	July 1995	June 1996	**Central Leather Research Institute (CLRI),** Chennai, India	**Project Research Associate** (funded by The Netherlands Organization(TNO)
7	Jan 1995	May 1999	**Department of Chemistry, College Of Engineering, Anna University,** Chennai, India	**JRF/SRF**

Overall Research Outputs*:*

- **Technology developed: >20; Technology Transferred: 5 to 8 industries**
- **Total filed patents: 24 along with 23 International patent applications**
  Total Patent Granted: 26
- ***Technical Earnings: 195-200 Lakhs* (through technology transfer, Royalty, validation, products/materials supply, license fee, etc.*)***
- ***Extramural Fund Generation from 9 sponsored and 4 industrial projects as PI and Co-PI: 967.7 Lakhs***
- Publications: **88 (Journal papers: 62; Proceedings: 10; Book chapters:3 & 15 Technical articles published for the organization visibility)**
- Total citations: **> 11825 (Google Scholar Search)** (h- index factor: **32;** i10 index: **56)**
- Invited Speaker in International, National Conferences and workshops: **49**
- Paper presented International, National Conferences, and workshops: **45**

Affiliations Professional Societies:

- Member of the International Solar Energy Society (ISES)
- Member of the Royal Society of Chemistry (MRSC)
- Member of the International Material Research Society (IMRS)
- Member of Material Research Society, India (MRSI)
- Member of Administrative Staff College of India (ASCI), Hyderabad, India

Honours/Awards/Recognition received:

- Fellow of the Royal Soc. of Chemistry (**FRSC, July 2021,** Cambridge, UK),
- Member of the Royal Soc. of Chemistry **MRSC, May 2019,** Cambridge, UK)
- **DAAD research award (June 1999**), German Academic Exc. Service, Bonn, Germany
- **Brain Korea-fellowship Award (Oct. 2006),** Korean Science and Technology, Korea
- **Albert Nelson Marquis Lifetime Achievement Award (2018),** Marquis Who's Who, Berkeley Heights, US
- **Best Researcher award from ScienceFAX** (June 2021)
- **Guest Editor for Materials Today proceeding of Nanotechnology:** Ideas, Innovations, Industries (Elsevier, 2021)
- **World's Top 2% Scientists ranking**, **Highly Cited Researchers list published in 2022 by Stanford University**
- Member of the Constitution of the Programme Advisory Committee for the domain "Sustainable Habitat" of IMPRINT-II in the Sci. and Engg.Research Board (SERB).
- Member of the CO_2 Research & Green Technology Centre advisory committee, VIT University, Vellore, India (2018).
- Member of the advisory committee of Int. Conf. on Advanced Materials Chemistry at the int. of Energy, Env.& Med. (ACMI2019), March 18 – 20, 2019, Manonmaniam Sundaranar University, Tirunelveli, India.
- Member of the advisory committee of Int. Conf. Advances in Renewable Energy and Green Technology, 30 – 31 Jan 2019, VIT University, Vellore, India.
- Member of the advisory committee of the National Conference on Novel Chemical Systems for Therapeutic and Energy Applications (NCSTEA-2019), 1–2 March 2019, at Sardar Patel University, Gujarat, India.
- Professional member in the Marquis Who's Who in the World and Science & Engg.
- Best PhD award received by my student at 2nd Int. Conf. on Protective Coatings and Sur. Treatment, Delhi (Nov 2019)

List of Sponsored and Industrial projects executed successfully:

1. Cost-efficient absorber materials and selective absorber coatings development for the design of cost-effective parabolic trough solar collectors for ORC systems (DST-DOE Indo-US Science & Technology Forum, SERIIUS), INR: **292 Lakh** (Nov 2012 – March 2018). **(PI of the project)**
2. Design and Development of Cost-efficient Solar Receiver Tube for Medium and High-Temperature Solar Thermal Applications (DST-SERI, DST) INR: **296 Lakh** (Jan 2016 – Dec.2019). **(PI)**
3. Development of Super-Hydrophobic Coatings with High Transmittance and Weather Stability for Dust Cleaning of PV Panels (NETRA (NTPC Ltd), Noida), INR: **52.77 Lakh** (June 2016 – April 2019). **(PI)**
4. High temp. Stable nanocomposite solar absorber coatings for CSP applications (TRC, DST), INR: **142 Lakh** (Jan.2016–Dec.2020). **(PI)**
5. Development of highly transparent dust repellent coatings for PV panels and Al reflector plates (TRC, DST), INR: **56 Lakh** (Jan. 2016 – Dec. 2020). **(PI).**
6. Broadband antireflective coatings for CSP and PV applications (TRC, DST), INR: **70 Lakh** (Jan 2016 – Dec. 2020). **(PI)**
7. Joint Development of solar selective coatings for Parabolic Trough Design in Concentrated Solar Thermal Power Plants (Themax Ltd, Pune, India), INR: **17 Lakh** (Aug. 2011-Dec. 2014). **(Co-PI)**
8. Atmospheric processing of large-area perovskite solar cell with >10% efficiency and demonstration of industry viable method for high throughput production of PSC modules, (DST-CERI programme), INR: **40 Lakh** (June 2016 – Dec. 2019). **(Co-PI)**
9. Technology development and demonstration of anti-fouling coating on compressor blades, (**INS-EKSILA),** INR: **14.70 Lakhs** (July 2020 – Dec. 2021). **(PI)**
10. Real-time stability analysis and validation of thermic fluids at process temperature by using a parabolic concentrated solar thermal test rig (HPCL Ltd, Bangalore), INR: **47 Lakhs** (July 2020 – Dec 2022).

Ongoing Projects:

1. Smart Net-Zero Positive Energy Efficient Buildings with Integrated Indigenous Cost-Efficient Solar Collectors and Storage Materials to IC-MAP programme (DST, Government of India), INR: **61 Lakhs** (March 2022 –March 2025). **(PI)**.
2. Broad-band Anti-reflective Coating using aqueous solvent based composition for sustainable PV glass manufacturing (TRC-IInd phase, DST), INR: **40 Lakh** (Jan 2021 – Dec. 2025). **(PI)**
3. Integration of Indigenously Developed Receiver Tubes (Developed under Phase I-TRC project) and 10kW Thermal Energy Storage System into an Existing Parabolic Trough Test Rig for the Demonstration of Concentrated Solar Thermal (CST)-Based Industrial Process Heat Application (TRC-IInd phase, DST), INR: **35 Lakh** (Jan 2021 – Dec. 2025). **(PI)**
4. Development of highly transparent super hydrophilic based Anti-soiling coating for PV & other application (TRC-IInd phase, DST), INR: **40 Lakh** (Jan 2021 – Dec. 2025). **(PI)**

Project and Research students supervised:

PhD student completed: 4; On-going: 1; Senior/Junior Research Fellow: 4(completed) Graduate Student Project Thesis: >25; Under Graduate Project Thesis: >20.

LIST OF PATENTS

1. **Dr. S. Sakthivel**, Dr. K.K.Phani Kumar, Dr. V. Ganapathy, Dr. R. Easwaramoorth, Method for producing Carbon Quantum Dots (CQDs) for the improved performance of lubrication and photoluminescence properties for lubricant and Solar PV ((202541028047; Date of filing: 25.03.2025).
2. **S. Sakthivel**, S.R. Atchuta, K. K. Phani Kumar, Prashant Misra, Method of Producing Ambient Temperature Curable and Sprayable Spinel Nanoparticles based Wide Angular Solar Absorber Coating For Flat Plate Collector System, Indian Patent Application No.202341034683, 17.05.2023.
3. **S. Sakthivel**, C. Narendra, R. Easwaramoorthi, S.R. Atchuta, and K. K. Phani Kumar "**A super hydrophilic, Omni-transparent Anti-soiling coating for photovoltaics, and a method for synthesising the same**" Indian Patent Application No. 202241052009 · date: 12.09.2022.
4. V. Ganapathy, Reshma Dileep, Easwaramoorthi R, **S. Sakthivel**, T. N. Rao, "**Method of producing highly crystalline TiO_2 nanoparticles suspension and its use in perovskite solar cell**", Indian Patent Application No. 202241, date: 22.09.2022
5. Mani Karthik, Shanmugasundaram Sakthivel, "**Method of producing spinel nanostructured materials and Spinel-PCM nanocomposites for thermal energy storage applications**" Indian Patent Application No. 202241064003, Date. 09.11.2022.
6. **S. Sakthivel**, S.R Atchuta, R.Easwaramoorthi, C. Narendra, M. Shiva Prasad, Method of producing single layer omnidirectional broadband antireflective and super hydrophilic coatings for solar and other applications, Indian patent application no. 202011051833, Date of filing: 27.11.2020. (Granted, Patent No. 473000, 24.11.2023)

   Other foreign Patent Applications

   1. PCT Patent Publication No: WO/2022/113108, date: 02.06.2022.
   2. US Patent: 18/254,847, May 26, 2023.
7. **S. Sakthivel**, Mani Karthik, Pillai Sorimuthu Kumar, and Karuparthi K Phani Kumar, "Method of producing carbon nanostructure materials for heat transfer, lubrication, and energy storage applications," Indian patent application no. 202011017775, Date of filing: 25.04.2020. (Granted, Patent No. 404762; 26.08.2022)
8. **S. Sakthivel**, A. Srinivas Rao and M. Shiva Prasad, "Transition metal-based solar selective absorber coated substrate and method of manufacturing the same," Indian patent application no. 201911019139, Date of filing: 14.05.2019. Granted, Patent No. *439790 on 20/07/2023*
9. **S. Sakthivel**, R. Easwaramoorthi, C. Narendra, A. Srinivas Rao, "Ambient condition curable transparent Superhydrophobic coating for easy to clean applications and method of producing the same," Indian patent application no. 201911009429, Date of filing: 11.03.2019. (Granted, Patent No. 361991; 18.03.2021)
10. **S. Sakthivel**, S. Anandan, and T. N. Rao, "Method of producing nanostructured C-TiO_2 composite materials for visible light self-cleaning", Indian patent application no. 201811011478, Date of filing: 28.03.2018. (Granted, Patent No. 340592; 06.07.2020)
11. **S. Sakthivel** and K. Chandra Sekhar Reddy, "Method of producing Hollow MgF_2 nanoparticles, antireflection coating sols and coatings for optical and solar applications", Indian patent application no. 201611041804, Date of filing: 07.12.2016. (Granted, Patent No. 348807; 07.10.2020)
12. **S. Sakthivel**, M. Shiva Prasad and S.V. Joshi, "Solar selective coating for solar energy collector /absorber tube with improved performance and a method of producing the same," Indian patent application no. 2142/DEL/2015, date of filing: 15.07.2015. Granted, Patent No. 421064, 09.02.2023)
13. **S. Sakthivel**, M. Shiva Prasad, B. Mallikarjun, and S.V. Joshi, "An improved performance of Nanocomposite Oxide Selective Absorber Coating with excellent optical and thermal resistant properties and method of manufacturing the same," Indian patent application no. 1111/DEL/2015, date of filing: 22.04.15. (Granted, Patent No. 345443, 28.08.2020)
14. **S. Sakthivel**, D. Karthik, and S.V. Joshi, "Method of producing porous MgF_2 nanoparticles, antireflection coating suspension and coatings for solar, optical, UV and IR transparent window applications", Indian patent Application no. 4041/DEL/2014, date of filing: 31.12.14.(Granted, Patent No. 394551, 08/04/2022)
15. **S. Sakthivel**, S. Viswanathan and S.V. Joshi, "Process of producing easy to clean coating (Super-hydrophobic coating) with high optical, weather, UV and corrosion resistance properties", Indian patent application no. 402/DEL/2014, date of filing: 13.02.2014, (Granted, Patent No. 382971, 29.11.2021)
16. **S. Sakthivel**, Sherine Alex and S.V. Joshi, "Process for producing antireflective coatings with anti-fogging (super hydrophilic), UV, weather and scratch resistance properties," Indian patent application no. 2919/DEL/2013, date of filing: 3.10.2013, (Granted, Patent No. 339326, 25.06.2020)
17. **S. Sakthivel**, V. Premkumar, and A. Srinivas Rao, "An improved solar selective absorber coating with excellent optical absorptance, low thermal emissivity and excellent corrosion resistance property and a process of

producing the same," Indian patent application no. 1129/DEL/2013, date of filing: 16.04.2013. (Granted, Patent No. 527219, 15/03/2024)

18. **S. Sakthivel** and A. Srinivas Rao, "A high thermal stable, selective solar absorber layer with low emissive barrier coating over a substrate and a process of producing the same," Indian patent application no. 3312/DEL/2012, date of filing: 29/10/2012, (Granted, Patent No. 323497, 23.10.2019)
19. **S. Sakthivel**, M. Righeira Carnegie and S.V. Joshi, "Process for producing antireflective coatings with scratch resistance property," Indian patent application no. 1777/DEL/2012, date of filing: 11/06/2012, (Granted, Patent No. 314900, 27.06.2019)
20. M. Veith, O. Peter, M. Jilavi and **S. Sakthivel**, "Verfahren zur Herstellung von Beschichtungen mit Antireflexionseigenschaften" DE 10 2009 035 797.A1, Date of filling: 03.02.2011.

Other foreign Patent Applications

21. M. Veith, O. Peter, M. Jilavi and **S. Sakthivel**, "Method for producing coatings having antireflection properties," US2012/0125234 A1 (2012), Date of filing: 27.01.2012. (Granted, US9063280 (B2), 23.06.2015).
    1. Japan, JP2013501248 (A), Date of filing: 01.10.2012. (Granted, JP5973912 (B2), 23.08.2016)
    2.China, CN103003721(A), Date of filing: 27.03.2013. (Granted, CN103003721 (B); 14.09.2016)
    3. EP *20100737264*, Date of filling: 06.07.2010. (Granted EP 2460035, 06.06.2012).
    4. South Korea, KR20120052367 (A), Date of filling: 23.05.2012.
    5. WO 2011/012214A1, (2011)
22. H. Kisch and **S. Sakthivel**, "Photokatalytisches Gelbpig-ment" German Offen (2006), DE 10 2006 049 769A1.
23. J. Orth-Gerber, H. Kisch, and **S. Sakthivel**, "Carbon-containing Titanium dioxide-based photocatalyst, and process for producing the same, US 2005226761 A1, 13.10.2005. (Granted, US7615512 (B2), 10.11. 2009).

Other foreign Patent Applications

1. EP2100927 (A1), 16.09.2009, (Granted, EP2100927 (B1); 17.08.2016)
2. Korea, KR20070039872(A), 13.04.2007; (Granted, KR101124196 (B1) 28.03.2012)
3. RUSSIAN PATENT, RU2006139088(A), 20.05.2008,Granted, RU2380318 (C2), 27.01.2010)..
4. China, CN 1930250 A, 14.03 2007. (Granted, CN1930250 (B), 18.05.2011)
5. India 1031/MUMNP/2006 A, Date of filling: 30.08.2006; (Granted, **224168; 06.02.2009)**
6. EP1732992A1, 20.12.2006.
7. Taiwan 94110845, (2006)
8. Malaysia PI 20051533 (2005)
9. WO 2005/108505 A1, (2005)
10. UA90270 (TG 178 WO/UA), (2010)
11. Brazil, BRPI10509767, 16.10.2007.

24. J. Orth-Gerber, H. Kisch, and **S. Sakthivel**, "Titanium dioxide photocatalyst containing carbon and method for its production, "German Pat. Appl. Publ., (2004) DE 102004 027549 A1, 27.10.2005.

Other foreign Patent Applications

1. U.S. Pat. Appl. Publ., (2005) US 2005227854 A1, 13.10.2005. (Granted, US7524793 (B2);28.04. 2009)
2. Japan JP2007532287(A), 15.11.2007, (Granted, JP4971135 (B2); 11.07.2012).
3. US 2012270028 A1, 25.10.2012.
4. Portugal BR000PI0509767A, (2007)

LIST OF PUBLICATIONS

88 (Journal papers: 62; Proceedings: 10; Book chapters:3 & 15 Technical articles published for the organisation visibility)

1. Md. Nishar, K.K.Phanikumar, A. Srinivasa Rao, S. Sakthivel, Feasible Study of Chemical Oxidized SS304 Sheets as Solar Selective Absorbers for Flat Plate Collectors & Performance Validation in Solar Water Heater Systems, Solar Energy Mat. & Solar Cells, 290 (2025), 113712. (**IF: 6.3)**
2. K.K. Phani Kumar, Naveen Kumar Arkoti, Narendra Chundi, George Elsa, Manavalan Vijayakumar, Mani Karthik*, Shanmugasundaram Sakthivel, Dual functional superhydrophobic and superorganophilic porous graphene carbon nanocomposite electrodes for Unprecedented High-Voltage supercapacitor with superior rate capability, Chemical Engineering Journal, Vol. 513, pp. 162859, 2025. **(IF: 13.40)**
3. K.K. Phani Kumar, Srinivas Achuta, M. S. Prasad, H. Barshilia, S. Sakthivel, Review on selective absorber coatings: A catalyst for enhanced solar energy conversion efficiency, Solar Energy Materials & Solar Cells (2024), 277, 113080. **(IF: 7.30)**
4. N. Chundi, R. Easwaramoorthi, Suresh Koppoju, S. Mallick, A.Kottantharayil and S. Sakthivel, Quantum-sized TiO2 particles as a highly stable super-hydrophilic and self-cleaning antisoiling coating for photovoltaic application, Solar Energy, 258 (2023), 194-202. **(IF: 7.19)**
5. Debarun Biswas, Narendra Chundi S.R. Atchuta, K.K.Phani Kumar, Madiwala Shiva Prasad, **S. Sakthivel**, Fabrication of omnidirectional broadband dual-functional coating with high optical and self-cleaning properties for photovoltaic application, Solar Energy (**2022**), 246, 36-44. **(IF: 7.19)**
6. K.K. Phani Kumar, Sudhanshu Mallick, **S. Sakthivel**, Cobalt-rich spinel oxide-based wide angular spectral selective absorber coatings for solar thermal conversion applications, RenewableEnergy, (2023), 203, 334–344.
7. Shaik Afzal Mohiuddin, Ajay Kumar Kaviti, T. Srinivasa Rao, and **S. Sakthivel**, Performance analysis of a contactless nanostructure in solar-powered desalination system, Environmental Science and Pollution Research (2022), Accepted. *doi.org/10.1007/s11356-022-23130-5* **(IF: 5.2)**
8. Narendra Chundi, S. R. Atchuta, **S. Sakthivel**, Omnidirectional broadband dual-functional (Antireflection and Ultra super-hydrophilic) nanocoating for Solar Applications, Energy Reports (2022), Accepted. **(IF: 4.98)**
9. S. Supraja, R. K. Dileep, Narendra Chundi, E. Ramasamy, S. Sakthivel, V. Ganapathy, Influence of bi-phasic TiO_2 as Low-temperature curable Electron transport layer for efficient perovskite solar cells, Solar Energy (**2022**), 247, 308-314. **(IF: 7.19)**
10. S.A. Mohiuddin, Ajay Kumar Kaviti, T.S. Rao, and **S. Sakthivel**, Effect of water depth in productivity enhancement of fouling-free non-contact nanostructure desalination system**,** Sustainable Energy Technologies and Assessments (2022), 54, 102848. **(IF: 7.6)**
11. Shaik Afzal Mohiuddin, Ajay Kumar Kaviti, S.R. Atchuta, **S. Sakthivel**, T. Harish, K. V. Kumar, T. Srinivasa Rao, A. Thaker, K. V. Reddy, A. M. Naga Sai, and A. Siva Ram, Performance analysis of non-contact nanostructure solar desalination system by varying water depth at a constant air gap, Solar Energy (**2022**), 247, 485-498. **(IF: 7.19)**
12. KK. Phani Kumar, S. Mallick, S. Sakthivel, "*Nanoparticles based single and tandem stable solar selective absorber coatings with wide angular solar absorptance*", Solar Energy Materials and Solar Cells, Volume 242, 111758, 2022. **(IF: 7.30)**
13. Genta Tsurumaki, Selvan Bellan, Koji Matsubara, Tatsuya Kodama, Mitsuho Nakakura, Nobuyuki Gokon, Hyun Seok Chok, Mani Karthik and **Shanmugasundaram Sakthivel**, Fluidisation behavior of redox metal oxide and spinel particles to develop high-energy-density thermal energy storage system for concentrated solar power applications, Journal of Thermal Science and Technology, vol. 12, No 2, p 1-9, 2022. **(IF: 0.95)**
14. Narendra Chundi, Ganesh Kesavan, Easwaramoorthi Ramasamy, Sudhanshu Mallick, Anil Kottantharayil, and Shanmugasundaram Sakthivel, Ambient Condition Curable, Highly Weather Stable Anti-Soiling Coating for Photovoltaic Application, Solar Energy Materials & Solar Cell, 230 (2021) 111203. **(IF: 7.30)**.

15. M. Shiva Prasad, P. Uday Bhaskar, S. R. Atchuta, P. Misra, B. Sobha, and S. Sakthivel. "Development of High-Performance Tandem Layered Absorber with Wide-Angular Absorptance for Solar Thermal Systems" Renewable Energy, 176 (2021) 579-589**. (IF: 8.63)**.
16. Prashant Misra *, S.R. Atchuta, Sreekanth Mandate, BV Sarada, T.N. Rao, S. Sakthivel, A non-vacuum dip-coated SiO2 interface layer for fabricating CIGS solar cells on stainless steel foil substrates, Solar Energy 214 (2021) 471–477. **(IF: 7.19)**.
17. A. Ashina, B. Ramya Krishna, R. Easwaramoorthi, Narendra Chundi, S. Sakthivel, V. Ganapathy, Dip coated SnO_2 film as an electron transport layer for low temperature processed planar perovskite solar cells Applied Surface Science Advances 4 (2021) 100066.
18. M. Shiva Prasad, B. Sobha, Koppoju Suresh, and S. Sakthivel, "Novel Spinel Nanostructure based High Thermal Stable and Wide-Angle Spectral Selective Absorber Coating," ACS Appl. Nano Mater. 2020, 3, 7869−7878 **(IF: 6.14).**
19. Narendra Chundi, Bhanupriya Das, Kolli Chandra Sekhar Reddy, Madiwala Shiva Prasad, Koppoju Suresh, Easwaramoorthi Ramasamy, Shanmugasundaram Sakthivel, "Single Layer Hollow MgF_2 Nanoparticles as High-Performance Omnidirectional Broadband Antireflective Coating for Solar Application", Solar Energy Materials & Solar Cells 215 (2020) 110680. **(IF: 7.30).**
20. S. R. Atchuta, S. Sakthivel, and Harish C. Barshilia, "Selective properties of high-temperature stable spinel absorber coatings for concentrated solar thermal application," Solar Energy 199 (2020) 453–459 **(IF: 7.19).**
21. KK. Phani Kumar, S.R. Atchuta, M. Shiva Prasad, S. Sakthivel, "Development of solar selective absorber coatings by wet chemical process on different substrates," International Journal of Advances in Science Engineering and Technology, vol.7, issue No 2 (2019) 2321-8991. **(IF: 3.15)**
22. M. S. Prasad, S. R. Atchuta, T. Vijayaraghavan, and S. Sakthivel, "Cost-Efficient Receiver Tube Technology for Eco-Friendly Concentrated Solar Thermal Applications," International Scholarly and Scientific Research & Innovation 13(7) (2019) (ISNI: 0000000091950263).
23. M. Shiva Prasad, V.G. Vasavi Dutt, K.K. Phani Kumar, S.R. Atchuta, V. Anbazhagan, S. Sakthivel, "A functional Ag-TiO_2 nanocomposite solar selective absorber with antimicrobial activity by photochemical reduction process", Journal of Photochemistry & Photobiology: B 199 (2019) 111626. **(IF: 6.81)**
24. K. Chandra Sekhar Reddy, Ch. Chingakham, Bikesh Gupta, M. Shiva Prasad, S.R. Atchuta and S. Sakthivel, "Single compound in-situ synthesis of Core-Shell CaF_2 nanoparticles for BroadBand Antireflective Coatings", Solar Energy 190 (2019) 119-125. **(IF: 7.19)**.
25. D. N. Joshi, S.R. Atchuta, Lokeswara Reddy Y., Naveen Kumar A, and S. Sakthivel, "Super-hydrophilic broadband anti-reflective coating with high weather stability for solar and optical application", Solar Energy Materials and Solar Cells 189 (2019) 226-232. **(IF: 7.30)**.
26. S.R. Atchuta, S. Sakthivel and H.C Barshilia, "Nickel doped cobalite spinel as a solar selective absorber coating for efficient photothermal conversion with a low thermal radiative loss at high operating temperatures," Solar energy materials and Solar Cells 200 (2019) 109917. **(IF: 7.30)**.
27. S.R. Atchuta, S. Sakthivel, and H.C Barshilia, "Transition metal-based CuxNiyCoz-x-yO4 spinel composite solar selective absorber coatings for concentrated solar thermal applications", Solar Energy Materials and Solar Cells, 189 (2019) 226-232. **(IF: 7.30)**
28. R. K. Dileep, G. Kesavan, V. Reddy, M. K. Rajbhar, S. Sakthivel, E. Ramasamy, Ganapathy. V, "Room-temperature curable carbon cathode for hole-conductor free perovskite solar cells," Solar Energy 187 (2019) 261–268. **(IF: 7.19)**.
29. M. Shiva Prasad, B. Mallikarjun, M. Ramakrishna, J. Joarder, B. Sobha and S. Sakthivel, "Zirconia Nanoparticles Embedded Spinel Selective Absorber Coating for High Performance in Open Atmospheric Condition", Solar Energy Materials and Solar Cells 174 (2018) 423–432. **(IF: 7.30)**.
30. S. Pendse, K. Chandra Sekhar Reddy, D. Karthik, C. Narendra, K. Murugan, and S. Sakthivel, "Dual-Functional Broadband Antireflective and Hydrophobic Films for Solar and Optical Applications", Solar Energy 163 (2018) 425–433. **(IF: 7.19)**.
31. Chandra Sekhar Reddy, D. Karthik, D. Bhanupriya, K. Ganesh, M. Ramakrishna, S. Sakthivel, "Broadband antireflective coatings using novel in-situ synthesis of hollowMgF_2 nanoparticles", Solar Energy Materials and Solar Cells 176 (2018) 259–265. **(IF: 7.30)**.
32. D. Karthik, S. Sakthivel, R. Easwaramoorthi, and S.V. Joshi, "High-performance broadband antireflective coatings using a facile synthesis of ink-bottle mesoporous MgF_2 nanoparticles for solar applications", Solar Energy Materials & Solar Cells 159 (2017) 204–211. **(IF: 7.30)**.

33. M. Shiva Prasad, K. Chandra Sekhar Reddy, S. Sakthivel, "Development of cost-efficient solar receiver tube with a novel tandem absorber system", Applied Thermal Engineering 109 (2016) 988-996. **(IF: 6.46)**.
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PROCEEDINGS:

1. M. Shiva Prasad, S.R. Atchuta, T. Vijayaraghavan, and S. Sakthivel, "Cost-Efficient Receiver Tube Technology for Eco-Friendly Concentrated Solar Thermal Applications," International Scholarly and Scientific Research & Innovation 13(7) 2019, ISNI:0000000091950263.
2. S.R. Atchuta, S. Sakthivel, and Harish C. Barshilia, "High-Temperature Stable Spinel Nanocomposite Solar Selective Absorber Coating for Concentrated Solar Thermal Application," ISES SWC2019 / SHC2019 Conference Proceedings (2019), ISBN: 978-3-982-04018-1-3, p 4-7.
3. S.R. Atchuta, B. Mallikarjun, and S. Sakthivel, "Optically enhanced solar selective and thermally stable absorber coating for concentrated solar thermal application," Advances in Energy Research, Vol. 2, Chapter 21, Springer Proceedings in Energy (2019) p 217-228.
4. M. Shiva Prasad, K.K. Phani Kumar, S.R. Atchuta, B. Sobha, and S. Sakthivel, "High performance and thermally stable tandem solar selective absorber coating for concentrated solar thermal power (CSP) application," AIP Conference Proceedings, 1961, (2018), 020004-1-7.
5. M.S. Prasad, S.R. Atchuta and S Sakthivel, "Nanomaterials and Coatings for Concentrated Solar Thermal Power (CSP) and Photovoltaic (PV.) Application," Advanced Materials Chemistry at the Interfaces of Energy, Environment, and Medicine. Vol 1, (2018), ISBN: 978-93-81402-42-9, p 53-57.
6. T. Vijayaraghavan, M. Shiva Prasad, S. Sakthivel and S.V. Joshi, "Design and fabrication of highly environmental stable Cr-Fe-Ni oxides/ ZrO_2-SiO_2 composite oxide-based tandem absorber for solar thermal power generation applications", Solar world congress proceedings, Daegu, S. Korea, Nov. 08-12, (2015).
7. H Kisch, G Burgeth, W Macyk, and S Sakthivel, "Modified titania powders for visible light photodetoxification of water," American chemical society proceeding, 228 (2004) U542.
8. V Murugesan, and S Sakthivel, "Photocatalytic degradation of leather dyes in aqueous solution using solar/U.V. illuminatedTiO2/ZnO", Proceedings of the International Symposium on Environmental Pollution Control and Waste Management (EPCOWM'02), (2002) 654-659.
9. B Neppolian, S Sakthivel, B Arabindoo, M Palanichamy, and V Murugesan, "Photocatalytic degradation of textile dye commonly used in cotton fabrics," Studies in Surface Science and Catalysis 113 (1998) 329-335.
10. P. Kannan, S. Sakthivel, K.V. Kannan, and S.C. Murugavel, "Studies on polyarylphosphoramide esters containing phenolphthalein and tetraphenyl methane units", Proceedings of the International Symposium on macromolecule, Vol. 1, 359, (1995).

BOOK CHAPTERS:

1. S. R. Atchuta, B. Mallikarjun, M. S. Prasad and S. Sakthivel, A chapter on "Cost-Efficient Solar Receiver Tube", in Solar Energy Research Institute for India and the United States (SERIIUS) - Lessons and Results from a Binational Consortium, Springer Lecture Notes in Energy, ISBN: 978-3-030-33184-9, Vol. 39, p 112-115, 2020.
2. A chapter on *Multiscale Concentrated Solar Power* authored by David Ginley, R. Aswathi, S.R. Atchuta, B. Basu, S. Basu, J.M. Christain, M. Shiva Prasad, S. Sakthivel et al. in the book *Solar Energy Research Institute for India and the United States (SERIIUS) - Lessons and Results from a Binational Consortium*, Springer Lecture Notes in Energy, ISBN: 978-3-030-33184-9., Vol. 39, Chapter 3, p 87 -132….., 2020.
3. V. Manjunath, Ramya Krishna, S. Maniarasu, E. Ramasamy, S. Sakthivel, and V. Ganapathy, "Perovskite Solar Cell Architectures", Perovskite Photovoltaics-basic to advanced concepts and implementation, ISBN No.: 9780128129159, Elsevier, 2018.

TECHNICAL ARTICLES IN MAGAZINES AND NEWSLETTERS FOR THE OUTREACH OF THE ORGANISATION:

1. S. Sakthivel, M. Karthik, and T.N. Rao, "Nanotechnology for concentrated solar thermal application," Nano insight 7 (2016) 42-52.
2. S. Sakthivel, B.V. Sarada, and T.N. Rao, "Concentrated solar thermal application from Nano," Nano digest (2016) 42-46.
3. ARCI's mechanically stable antireflective coating can increase the power conversion efficiency of solar thermal systems DST website, 1st May 2020.
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5. Easy-to-clean solar panel coating developed in India, PV magazine International, PV magazine, 8th July 2020.
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9. ARCI sets up concentrated solar thermal-based test rig facility in Hyderabad, Business Line, 8th July 2021.
10 ARCI's solar thermal test facility to help industry, Hindu, 7th July 2021.
11. ARCI New solar thermal components testing facility at Hyderabad to give further fillip to India's growing solar sector, Ministry of Science and Technology, 7th July 2021.
12. ARCI Centre sets up solar thermal components testing facility in Hyderabad, Times of India, 7th July 2021.
13. ARCI New solar thermal components testing facility at Hyderabad can help Indias growing solar sector, Department Of Science & Technology online portal 7th July 2021
14. ARCIs cost-effective Technology can convert solar energy to industrial process heat, Department Of Science & Technology online portal, March 2020.
15. ARCI cost-effective Technology can convert solar energy to industrial process heat, Indian Bureaucracy is an Exclusive News Portal, March 2020.

LIST OF INVITED & KEY-NOTE PRESENTATIONS IN THE NATIONAL AND INTERNATIONAL CONFERENCES & WORKSHOPS:

1. Delivered an invited lecture on Nanomaterials and Functional Coatings for Solar Thermal and Photovoltaic Applications: Scaling for Production at 8th International Conference on Nanoscience and Nanotechnology (ICONN-2025) is organized by SRM, 24th to 26th March 2025.
2. Delivered an invited lecture on Functional Nanocoatings for Sustainable Green Energy Technologies at International Conference (ICEWSE 2025) is organied by Pondichery University on 1st Oct 2025.
3. Delivered an invited lecture on Cost-efficient absorber tubes for medium and high-temperature Concentrated Solar Thermal (CST)-based industrial process heat application at the International Symposium on Renewable Energy Technologies: Energizing the Future (IsRET 2024), August 2024, IITM, Chennai.
4. Delivered an invited lecture on Indigenous Technology Development of Functional Coatings and Devices for Solar thermal & PV Applications at the National Science Day on 28th Feb 2024, conducted by Vasavi Engg College, Hyderabad.

5. Delivered an invited lecture on " Functional Materials and Coating for energy conversion and hydrogen generation" for the National Workshop on Green Hydrogen: Technology to Application , Pondichery University (Inauguration of UNESCO Chair), 10th Dec 2024.
6. Delivered an invited lecture on "Functional Materials and Coatings for Solar Thermal and PV Applications" Workshop on Materials and Coatings for Flexible Electronics, conducted by DMSRDE Kanpur, during 18-22 November, 2024
7. Delivered an invited lecture on Indigenous Technology Development of Functional Coatings and Devices for Solar thermal & PV Applications at the National Science Day on 28th Feb 2024, conducted by Vasavi Engg College, Hyderabad.
8. Delivered an invited lecture on Functional Coatings for PV & Solar thermal applications at the international conference of ICONN2023, 27-29 March 2023, SRM Institute of Science and Technology, Chennai, India.
9. Delivered invited lecture on Nanocomposite based absorber coatings for concentrated solar thermal application at the workshop on Advanced composite materials for energy conversion and storage applications, 16-22nd Feb 2023, University College of Engineering, BIT Campus, Anna University, Trichy, India
10. Delivered invited lecture on Functional coatings for self-clean and Easy to cleaning of PV panels at the workshop on Advanced composite materials for energy conversion and storage applications, 16-22nd Feb 2023, University College of Engineering, BIT Campus, Anna University, Trichy, India
11. Delivered Plenary lecture on Functional nanocoatings for PV & Solar thermal applications at the national conference of SCHEMCON 2022, Sep 23-24 Sep 2022, NIT Warangal, Telangana, India
12. Delivered key-note lecture on Functional Coating Technology for Solar thermal & PV Applications at the International Conference on Recent Advances and innovation in Solar Energy (RAiSE-2021), 2-4th Dec, Solar Energy Hub, IITM, Chennai, India (online).
13. Delivered an invited lecture on "Functional coating technologies for Solar thermal and PV applications, at the AICTE Training And Learning (ATAL) Academy sponsored ONLINE Faculty Development Program (FDP) on "NOVEL MATERIALS FOR NEXT-GENERATION APPLICATIONS" from 12th to 16th July 2021, M S Ramaiah Institute of Technology, Bengaluru 560054, India.
14. Delivered an invited lecture on Functional Coatings for PV & Solar thermal applications at the international conference of ICONN2023, 27-29 March 2023, SRM Institute of Science and Technology, Chennai, India.
15. Delivered invited lecture on Nanocomposite based absorber coatings for concentrated solar thermal application at the workshop on Advanced composite materials for energy conversion and storage applications, 16-22nd Feb 2023, University College of Engineering, BIT Campus, Anna University, Trichy, India
16. Delivered invited lecture on Functional coatings for self-clean and Easy to cleaning of PV panels at the workshop on Advanced composite materials for energy conversion and storage applications, 16-22nd Feb 2023, University College of Engineering, BIT Campus, Anna University, Trichy, India
17. Delivered invited presentation on Functional Materials/Coatings and Nano photocatalysts for Solar and Environmental Applications" for the CPCB sponsored training programs on "Advanced oxidation technology-A futuristic way forward for treatment of recalcitrant pollutants" on 24th Feb 2021, organised by Anna University, Chennai, India. (Online).
18. Delivered invited presentation on "Functional coatings for Concentrated Solar Thermal and PV applications" DST-PURSE PHASE II sponsored "Webinar on Recent Trends in Chemistry -2021, on 5th Jan 2021, organised by Bharathiar University, Coimbatore, Tamil Nadu, India (online).
19. Delivered invited presentation on Functional materials/ nanocoatings for Solar thermal and PV applications in the Workshop on Functional Materials, Dye-Sensitized Solar Cells and Perovskite Solar Cells" on 21-22 September 2020, organised by Kongu Engineering College, Tamil Nadu, India (Online).
20. Delivered invited presentation on Highly Weather Stable Anti-Soiling Coating for Photovoltaic Application" in the Indo-UK PV Soiling Workshop, on 4th Nov 2020, jointly organised by IITB and Loughborough University, UK under Uk-India research initiative (DST, India), India-UK, (Online).
21. Delivered invited presentation on "Self-cleaning coating for Solar Panels" Workshop on Materials and Coatings for PV Application, Centre of Excellence of Advanced Materials for Research" on 28th Jan, 2021, Rabindranath Tagore University (previously known as AISECT University), Bhopal, India (Online).
22. Delivered invited lecture on "Functional materials & Nanocoating for PV and Solar thermal application" in the Online Faculty Development Program on Energy Storage and Conversion with Efficient Nanomaterials Sponsored by AICTE - ATAL Academy, on 8th Oct, 2020, organised by Bharathiar University, Coimbatore, Tamil Nadu, India (Online)
23. Delivered a key-note lecture on "Importance of Energy Storage for Economic Concentrated Solar Thermal Power Generation and E Mobility," ATAL Academy Sponsored Five Days Online FDP on Energy Storage and E Mobility,

on 24th Aug 2020, Organised by Department of Mechanical Engineering, Syed Ammal Engineering College, Ramanathapuram, Tamil Nadu, India (Online).

24. Delivered invited on "Cost Efficient Easy to Clean Coating Technology for Eco-Friendly PV Power Generation", Surface Engineering, Paint and Coating Forum –south 2019, 4th Dec 2019, Hitex Exhibition Centre, Hyderabad, organised by The Society of Surface Protective Coating, India.
25. Delivered invited on "Cost Efficient Functional Coating Technologies for Eco-Friendly Concentrated Solar Thermal and PV application", 2nd International Conference on Nanoscience and Nanotechnology (ICNAN 2019), 29th Nov-1st Dec. 2019, VIT University, Vellore, India.
26. Delivered invited on "Receiver tube technology for medium and high temperature concentrated solar thermal application" Solar thermal Chemical Technologies for Green and Sustainable Development, 17-18th October 2019, DLR (Germany Aerospace Centre), Cologne, Germany.
27. Delivered invited on "Cost-efficient receiver tube Technology for Eco-friendly Concentrated Solar Thermal Application," International Conference on Energy Conversion Technologies for Space Power, 26th Jul 2019, Berlin, Germany.
28. Delivered Invited Lecture on "Functional coating development from laboratory to industrial scale for Solar Thermal and PV applications", International conference Advanced Materials Chemistry at the interfaces of Energy, Environment and Medicine (ACMI 2019), 30 – 31st Jan. 2019, Manonmanium Sundaranar University, Tirunelveli, India.
29. Delivered Keynote Lecture on "Nanostructured Materials Synthesis and Development Nanocoatings for Concentrated Solar Thermal Power (CSP) & PV Applications," 3rd National Workshop on Solar Energy Utilization (SUN) for Sustainable Development, 1-2nd February 2018, CSIR-NEERI, Nagpur, India.
30. Delivered invited lecture on "Role of Nano-functional Coatings for Solar Thermal and PV applications", Fabrication of thin–films and Optoelectronics devises through Hands-on – Experience, 3-8th July 2018, NIT, Warangal, India.
31. Delivered Invited Lecture on "Role of Nanostructure materials and Coatings for Concentrated Solar Thermal Power (CSP) and Photovoltaic (PV) Applications", National symposium on Sustainable Energy Conversion and Storage Materials, 5-6th April 2018, Sathyabama Institute of Science and Technology, Chennai, India.
32. Delivered Invited Lecture on "Functional coatings for concentrated solar thermal power (CSP) & PV Applications", Challenge and issues in the development of distributed solar and wind energy system (ICESD), 20-24 February 2017, Kjei's Trinity College of Engineering and Research, Pune, India.
33. Delivered Invited Lecture on "Nanostructure Materials and Nanocoatings for CSP and PV Applications", 3rd National conference on Advanced Oxidation processes (AOP2017), 18-20th December at BIT campus, Anna University, Trichy, India.
34. Delivered Invited Lecture on, "Nanofunctional Materials and Coatings for Concentrated Solar thermal Power (CSP) & PV Applications", Solar Energy Utilization for Sustainable Development, 23-24th March 2017 at CSIR-NEERI, Nagpur, India.
35. Delivered Invited Lecture on, "Functional materials and coatings for concentrated solar thermal power (CSP) & PV Applications", International conference On Nanoscience and Nanotechnology 2016, 19-21st October 2016, VIT University, Vellore, Tamil Nadu, India.
36. Delivered Invited Lecture on, "Role of nanofunctional coatings for PV and Solar thermal application", -- International conference on Nanomaterials and Nanotechnology, 7-11th December 2015, KSRT, Tiruchengode, India.
37. Delivered Invited Lecture on "National Conference on Emerging trends in chemistry and materials", Cost-Efficient Nanofunctional Coatings for Solar Thermal and PV Applications, 9-10th April 2015, Thiruvalluvar University, Vellore, India.
38. Delivered Invited Lecture on "Importance of solar functional coatings for Solar thermal and PV applications", National Conference on Recent Advances in Nano sciences (RANSS' 44), 21-22nd November 2015, AUXILIUM college, Thiruvalluvar University, Vellore, India.
39. Delivered Invited Lecture on" Functional Nanoparticles/Coatings for selective chemical adsorption" in the National Workshop on chemical coatings on Explosives" sponsored by office of principal Scientific Advisor, Dept. of Electronics and Communication, Novel type of chemical coatings for explosive applications, 21st May 2014 at IIT Bombay, India.
40. Delivered Invited Lecture on "Nano Functional Materials/Coatings for Solar energy harvesting Technologies", International conference on Chemistry and Materials (ICCM), 14-15th November 2014, Dept. of Chemistry, BIT Campus, Anna University, Trichy, India.

41. Delivered Invited Lecture on "Future and Application of Nano-functional coatings in Energy Harvesting Technology", International conference on Nano-Bio and Material sciences (ICONBMS-2014), 8-10th January 2014, Osmania University, Hyderabad, India.
42. Delivered Invited Lecture on "Nano functional coatings for solar applications", International symposium VTU-International CANUES (VICAS-2013), 18-19th April 2013, VTU, Belgaum, Karnataka, India.
43. Delivered Invited Lecture on "Important role of functional nano coatings for Solar thermal and PV Applications", National workshop on Sustainable energy conversion and storage devices, 2-8th September 2013 at SRM University, Chennai, Tamil Nadu, India.
44. Delivered Invited Lecture on "Importance of Solar Energy conversion Technology in India", Renewable Energy sources (sponsored by AICTE), 04-17th October 2013, Syedammal Engg. College, Ramnad, Tamil Nadu, India.
45. Delivered Invited Lecture on "Importance of Solar Energy conversion Technology" at a workshop on National seminar on an emerging trend in solar Energy 2013, 23rd October 2013, BS. Abdur Rahman University, Chennai, India.
46. Delivered Invited Lecture on "Important role of functional nanocoatings for Solar conversion Technology" at a National workshop on "Nanotechnology – A fuel for chemical Industry", 20-21st September 2013, RVR & JC College of Engineering, Guntur, India.
47. Delivered Invited Lecture on "Role of nanotechnology in the field of Environment and Energy", National seminar on "Role of nanotechnology in Environmental Protection", 11-12th February 2012 at JNTU, Anantapur, India.
48. Delivered Invited Lecture on "Importance of Solar Energy Conversion Technologies in India & Challenges of producing solar receiver tubes for high-temperature Applications", symposium on New Frontiers in Heterogeneous catalysis, 21st Dec 2011, Anna University, Chennai, India.
49. Delivered Invited Lecture on "Development of High absorption and low emissivity coatings for Solar thermal Applications", National Seminar on Nanotechnology - Its future and Applications in Energy Sector, 26-27th August 2011, Hyderabad, India.

LIST OF ORAL AND POSTER PRESENTATIONS IN THE NATIONAL AND INTERNATIONAL CONFERENCES & WORKSHOPS:

1. *Firoz Shaik, Md Nishar, S.Sakthivel "*PERFORMANCE ENCHANCEMENT AND EVALUATION OF COST-EFFICIENT, CONCRETE-INSULATED SOLAR STILL USING NOVEL SPINEL NANOPARTICLES COATED ABSORBER PLATE, 4th International Conference on Advanced Functional Materials for Sustainable Energy Applications (ICAFMSA-2023), K L University, Green Fileds, Vaddeswaram, Guntur Dist. - 522 302. Andhra Pradesh, India.
2. Narendra Chundi, R. Easwaramoorthi, S. Mallick[3], A. Kottantharayil and S. Sakthivel, oral presentation on development of ambient condition curable highly weather stable anti-soiling coating and evaluation of its application for photovoltaic applications, at the International Conference on Recent Advances and Innovations in Solar Energy " conducted by DST Solar Energy Harnessing Centre (DSEHC), Indian Institute of Technology Madras Chennai, India on 2-4 December 2021.
3. K. K. Phani Kumar, S. Mallick, and S. Sakthivell, oral presentation on "Nanocomposite based Solar Selective Absorber Coatings with High Thermal Stability and Wide-Angular Solar Absorptance",at the International Conference on Recent Advances and Innovations in Solar Energy " conducted by DST Solar Energy Harnessing Centre (DSEHC), Indian Institute of Technology Madras Chennai, India on 2-4 December 2021.
4. Dr. S. Sakthivel (Oral presentation) (virtual) on "Cost-effective, Scalable and High-Temperature Stable Spinel Structured Solid Particles for High-Temperature Solar Thermal Energy Storage Applications", at the 11th SOLARIS International Symposium on Solar Energy and Efficient Energy Usage, 27-30 September 2021, Tokyo, Japan
5. M. Shiva Prasad(Oral presentation), B. Sobha, and S. Sakthivel, "Functional Coatings for Solar Energy Applications," 2nd International conference on Surface Protective coatings & treatment, 18-19th Nov. 2019, Delhi.
6. S. R. Atchuta (Oral presentation), S. Sakthivel and H.C Barshilia, "High-Temperature Stable Spinel Nanocomposite Solar Selective Absorber Coating for Concentrated Solar Thermal application", Solar World Congress (SWC) 2019, 04-07th Nov. 2019, Santiago, Chile.
7. K. K. Phani Kumar ((Oral presentation), S.R. Achuta, M. Shiva Prasad, and S. Sakthivel, "Development of Solar Selective Absorber Coatings by Wet Chemical Process on Different Substrates", The ASAR - International Conference on Renewable Energy, Green technology & Environmental Science (ICREGTES), January 2019, Pune, India.
8. M. Shiva Prasad, K. K. Phani Kumar, S.R Atchuta, B. Sobha and S. Sakthivel, "High Performance and Thermally Stable Tandem Solar Selective Absorber Coating for Concentrated Solar Thermal Power (CSP) Application," Nanomaterials for Energy Conversion and Storage Applications, 29-31st Jan 2018, PDPU-Gujarat, India.

9. C. Narendra, S. Pendse, S.R. Atchuta, and S. Sakthivel, (Poster Presentation) "Dual functional Nanocoating for Self-Cleaning and Antireflective Applications", 10th Bangalore India Nano, Bangalore7-8, Dec 2018.
10. S.R. Atchuta, B. Mallikarjun, and S. Sakthivel, "Optically enhanced solar selective and thermally stable absorber coating for concentrated solar thermal application", 6th International Conference on Advances in Energy Research 2017, 12-14th December 2017, IIT Bombay, Mumbai, India.
11. M. Shiva Prasad, K. Ganesh, and S. Sakthivel, "Novel Tandem Absorber Coatings for Low and Medium Temperature Concentrated Solar Thermal Power Applications", First International Conference on coatings, thin films, multilayer devices and systems, 14-16th December 2016, NFTDC, Hyderabad, India.
12. M. Shiva Prasad, S. Amarnath, K. Venkatesh, S. Sakthivel, and S.V. Joshi, "Development of Cost-Efficient Solar Absorber Coatings for ORC Collectors," SERIIUS Review meeting, 13-14th March 2015, Hyderabad, India.
13. S. Sakthivel (Oral presentation), "Ag-TiO_2 nanocomposite selective solar absorber coatings for solar thermal application", ICONSAT-2012, 20-23 January 2012, Hyderabad, India.
14. Kisch, H., and Sakthivel, S., "Modifying Titania for semiconductor Daylight Photocatalysis", EAAOP conference, 7-9th September, 2006, Chania, Greece.
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