

Asymmetric NDI electron transporting SAM materials for application in photovoltaic devices

Svirskaitė, Lauryna Monika; **Mandati, Sreekanth; Spalatu, Nicolae**; Malinauskienė, Vida; Karazhanov, Smagul; Getautis, Vytautas; Malinauskas, Tadas Synthetic metals 2022 / art. 117214 <https://doi.org/10.1016/j.synthmet.2022.117214> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Bulk and surface characterisation techniques of solar absorbers : general discussion

Andreasen, Jens Wenzel; Breternitz, Joachim; Bär, Marcus; Dale, Phillip J.; Dimitrievska, Mirjana; Fermin, David J.; Fleck, Nicole; Hages, Charles J.; Havryliuk, Yevhenii; Hawkins, Cara; **Mandati, Sreekanth** Faraday Discussions 2022 / p. 180-201 <https://doi.org/10.1039/D2FD90056D>

Control over MoSe₂ formation with vacuum-assisted selenization of one-step electrodeposited Cu-In-Ga-Se precursor layers

Mandati, Sreekanth; Misra, Prashant; Boosagulla, Divya; Tata, Narasinga Rao; Bulusu, Sarada V. Environmental science and pollution research 2021 / p. 15123-15129 : ill <https://doi.org/10.1007/s11356-020-11783-z>

Copper chalcopyrites for solar energy applications

Mandati, Sreekanth; Misra, Prashant; Sarada, Bulusu V.; Rao, Tata Naransinga Transactions of the Indian Institute of Metals 2019 / p. 271–288 : ill <https://doi.org/10.1007/s12666-018-1455-0>

Cost-effective fluorene and thiophene containing hole conductors towards semi-transparent Sb₂S₃ absorber-based solar cells

Mandati, Sreekanth; Juneja, Nimish; Katerski, Atanas; Jegorove, Aiste; Daskeviciute-Geguziene, Sarune; Grzibovskis, Raitis; Vembris, Aivars; **Spalatu, Nicolae**; Magomedov, Artiom; Karazhanov, Smagul; Getautis, Vytautas; **Krunks, Malle; Oja Acik, Ilona** WCPEC-8 : 8th World Conference on Photovoltaic Energy Conversion 2022 / p. 470-473 <https://doi.org/10.4229/WCPEC-82022-2BV.2.70>

Cost-effective synthesis of electrodeposited NiCo₂O₄ nanosheets with induced oxygen vacancies : a highly efficient electrode material for hybrid supercapacitors

Pappu, Samhita; Nanaji, Katchala; **Mandati, Sreekanth**; Rao, Tata Naransinga; **Martha, Surendra K.; Bulusu, Sarada V.** Batteries and supercaps 2020 / p. 1209-1219 <https://doi.org/10.1002/batt.202000121>

Economic pulse electrodeposition for flexible CuInSe₂ solar cells

Mandati, Sreekanth; Misra, Prashant; Boosagulla, Divya; Rao, Tata Naransinga; Sarada, Bulusu V. Materials for renewable and sustainable energy 2020 / art. 19, 6 p. : ill <https://doi.org/10.1007/s40243-020-00177-3>

Electrodeposited chalcopyrite CuInGaSe₂ absorbers for solar energy harvesting

Mandati, Sreekanth; Sarada, Bulusu V. Materials science for energy technologies 2020 / p. 440-445 : ill <https://doi.org/10.1016/j.mset.2020.03.001>

EMI-transparent Sb₂S₃ solar cells with fluorene-based enamine as hole transport material

Juneja, Nimish; Mandati, Sreekanth; Daskeviciute-Geguziene, Sarune; Vembris, Aivars; Getautis, Vytautas; **Krunks, Malle; Oja Acik, Ilona** Graduate School of Functional Materials and Technology (GSFMT) Scientific Conference : abstracts 2022 / 21 I. [Graduate School of Functional Materials and Technology \(GSFMT\) Scientific Conference 2022](#)

Employment of dopant-free fluorene-based enamines as innovative hole transport materials to boost the transparency and performance of Sb₂S₃ based solar cells

Juneja, Nimish; Daskeviciute-Geguziene, Sarune; **Spalatu, Nicolae; Mandati, Sreekanth; Katerski, Atanas**; Grzibovskis, Raitis; Vembris, Aivars; Karazhanov, Smagul; Getautis, Vytautas; **Krunks, Malle; Oja Acik, Ilona** Materials science in semiconductor processing 2024 / art. 107934 <https://doi.org/10.1016/j.mssp.2023.107934>

4.9 % efficient Sb₂S₃ solar cells from semi-transparent absorbers with fluorene-based thiophene terminated hole conductors

Mandati, Sreekanth; Juneja, Nimish; Katerski, Atanas; Jegorove, Aiste; Grzibovskis, Raitis; Vembris, Aivars; **Dedova, Tatjana; Spalatu, Nicolae**; Magomedov, Artiom; Karazhanov, Smagul; Getautis, Vytautas; **Krunks, Malle; Oja Acik, Ilona** ACS Applied Energy Materials 2023 / p. 3822–3833 <https://doi.org/10.1021/acsam.2c04097> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Growth mechanism of pulse electrodeposited cadmium sulfide and zinc sulfide thin films with tartaric acid and glycerol as additives

Boosagulla, Divya; **Mandati, Sreekanth**; Allikayala, Ramachandraiah; Sarada, Bulusu V. Thin Solid Films 2022 / art. #139011 <https://doi.org/10.1016/j.tsf.2021.139011>

Indium-free CIGS analogues : general discussion

Andreasen, Jens Wenzel; Bowers, Jake W.; Breternitz, Joachim; Dale, Phillip J.; Dimitrievska, Mirjana; Fermin, David J.; Ganose, Alex; Gurieva, Galina; Hages, Charles J.; **Mandati, Sreekanth** Faraday Discussions 2022 / p. 85-111 <https://doi.org/10.1039/D2FD90055F>

Inexpensive fluorene-based hole transporting material with terminated thiophene unit for efficient semi-transparent Sb₂S₃ solar cells

Jegorove, Aiste; **Mandati, Sreekanth**; Juneja, Nimish; Katerski, Atanas; Vembris, Aivars; Grzibovskis, Raitis; Getautis, Vytautas; Dedova, Tatjana; Magomedov, Artiom; **Spalatu, Nicolae**; Karazhanov, Smagul; **Krunks, Malle**; **Oja Acik, Ilona** Proceedings of International Conference on Hybrid and Organic Photovoltaics (HOPV22), València, Spain, 2022 May 19th - 25th 2022
<https://www.nano.org/proceedings/HOPV22/62596b7159d9502382511011>

Large area bar coated TiO₂ electron transport layers for perovskite solar cells with excellent performance homogeneity

Mandati, Sreekanth; Dileep, K. Reshma; Veerappan, Ganapathy; Ramasamy, Easwaramoorthi Solar Energy 2022 / p. 258-268
<https://doi.org/10.1016/j.solener.2022.04.060>

Materials design and bonding : general discussion

Agbenyeke, Raphael; Andreasen, Jens Wenzel; Benhaddou, Nada; Bowers, Jake W.; Breternitz, Joachim; Bär, Marcus; Dimitrievska, Mirjana; Fermin, David J.; Ganose, Alex; **Mandati, Sreekanth** Faraday Discussions 2022 / p. 375-404
<https://doi.org/10.1039/D2FD90058K>

A multi-layer Cu:Ga/In sputtered precursor to improve structural properties of CIGS absorber layer

Misra, Prashant; **Mandati, Sreekanth**; Rao, Tata Naransinga; Sarada, Bulusu V. Materials today: proceedings 2021 / p. 2037-2041 : ill <https://doi.org/10.1016/j.matpr.2020.09.545>

A non-vacuum dip coated SiO₂ interface layer for fabricating CIGS solar cells on stainless steel foil substrates

Misra, Prashant; Atchuta, S. R.; **Mandati, Sreekanth**; Sarada, Bulusu V.; Rao, Tata Naransinga; Sakthivel, S. Solar energy 2021 / p. 471-477 : ill <https://doi.org/10.1016/j.solener.2020.12.007>

Novel chalcogenides, pnictides and defect-tolerant semiconductors : general discussion

Andreasen, Jens Wenzel; Arca, Elisabetta; Bowers, Jake W.; Bär, Marcus; Breternitz, Joachim; Dale, Phillip J.; Dimitrievska, Mirjana; Fermin, David J.; Ganose, Alex; **Mandati, Sreekanth** Faraday Discussions 2022 / p. 287-316 <https://doi.org/10.1039/D2FD90057B>

Preparation of CuInSe₂ thin films by using various methods : (a short review)

Soonmin, Ho; **Mandati, Sreekanth**; Chandran, Ramkumar; Mallik, Archana; Bhuiyan, M. A. S.; Deepa, K. G. Oriental journal of chemistry 2019 / p. 01-13 : ill http://eprints.intimal.edu.my/1267/1/CuInSe2%20thin%20films%20by%20uisng%20various%20methods_Ho.pdf

Pulse electrodeposited zinc sulfide as an eco-friendly buffer layer for the cadmium-free thin-film solar cells

Boosagulla, Divya; **Mandati, Sreekanth**; Misra, Prashant; Allikayala, Ramachandraiah; Sarada, Bulusu V. Superlattices and microstructures 2021 / art. 107060 <https://doi.org/10.1016/j.spmi.2021.107060>

Rapid assessment of photovoltaic activity of perovskite solar cells by photoluminescence spectroscopy

Dileep, K. Reshma; **Mandati, Sreekanth**; Ramasamy, Easwaramoorthi; Mallick, S; Rao, Tata Naransinga; Veerappan, Ganapathy Materials letters 2021 / art. 130056, 4 p. : ill <https://doi.org/10.1016/j.matlet.2021.130056>

Sb₂S₃ solar cells with a cost-effective and dopant-free fluorene-based enamine as a hole transport material

Juneja, Nimish; **Mandati, Sreekanth**; Katerski, Atanas; **Spalatu, Nicolae**; Daskeviciute-Geguziene, Sarune; Vembris, Aivars; Karazhanov, Smagul; Getautis, Vytautas; **Krunks, Malle**; **Oja Acik, Ilona** Sustainable Energy & Fuels 2022 / p. 3220-3229
<https://doi.org/10.1039/D2SE00356B> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Sb₂S₃ thin-film solar cells fabricated from an antimony ethyl xanthate based precursor in air

Eensalu, Jako Siim; **Mandati, Sreekanth**; Don, Christopher H.; Finch, Harry; Dhanak, Vinod R.; Major, Jonathan D.; Grzibovskis, Raitis; Tamm, Aile; Ritslaid, Peeter; **Josepson, Raavo**; Käämbre, Tanel; Vembris, Aivars; **Spalatu, Nicolae**; **Krunks, Malle**; **Oja Acik, Ilona** ACS applied materials & interfaces 2023 / p. 42622-42636 <https://doi.org/10.1021/acsami.3c08547> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Solar energy harvesting through photovoltaic and photoelectrochemical means from appositely prepared CuInGaSe₂ absorbers on flexible substrates by a low-cost and industrially benign pulse electrodeposition technique

Mandati, Sreekanth; Misra, Prashant; Boosagulla, Divya; Tata, Narasinga Rao; Bulusu, Sarada V. Industrial and engineering chemistry research 2021 / p. 2197-2205 <https://doi.org/10.1021/acs.iecr.0c05934>

Two-dimensional CuIn_{1-x}Ga_xSe₂ nano-flakes by pulse electrodeposition for photovoltaic applications

Mandati, Sreekanth; Dey, Suhash R.; Joshi, Shrikant V.; Sarada, Bulusu V. Solar energy 2019 / p. 396-404
<https://doi.org/10.1016/j.solener.2019.02.022>