

Ageing of kesterite solar cells 1 : Degradation processes and their influence on solar cell parameters

Neubauer, Christian; Samiepour, Ali; Oueslati, Souhaib; Danilson, Mati; Meissner, Dieter Thin solid films 2019 / p. 595-599 : ill
<https://doi.org/10.1016/j.tsf.2018.11.043> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Ageing of kesterite solar cells 2 : Impact on photocurrent generation

Samiepour, Ali; Neubauer, Christian; Oueslati, Souhaib; Mikli, Valdek; Meissner, Dieter Thin solid films 2019 / p. 509-513 : ill
<https://doi.org/10.1016/j.tsf.2018.11.044> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Analysis of design requirements and optimization possibilities of partial power converter for photovoltaic string applications in DC microgrids

Chub, Andrii; Hassanpour, Naser; Yadav, Neelesh; Jalakas, Tanel; Blinov, Andrei; Vinnikov, Dmitri IEEE Access 2024 / p. 14605-14619 <https://doi.org/10.1109/ACCESS.2024.3354375>

Buck-boost unfold inverter as a novel solution for single-phase PV systems

Husev, Oleksandr; Matiushkin, Oleksandr; Vinnikov, Dmitri; Roncero, Carlos; Romero-Cadaval, Enrique; Kütt, Lauri IECON 2018 - 44th Annual Conference of the IEEE Industrial Electronics Society : proceedings 2018 / p. 6116-6121 : ill
<https://doi.org/10.1109/IECON.2018.8592899>

Bulk and interface recombination in TiO₂/Sb₂Se₃ solar cells

Krautmann, Robert; Josepson, Raavo; Spalatu, Nicolae; Oja Acik, Ilona Graduate School of Functional Materials and Technology (GSFMT) Scientific Conference : abstracts 2022 / p. 28 [Graduate School of Functional Materials and Technology \(GSFMT\) Scientific Conference 2022](#)

Cleaning of floating photovoltaic systems : a critical review on approaches from technical and economic perspectives

Zahedi, Rafi; Ranjbaran, Parisa; Gharehpetian, Gevork B.; Mohammadi, Fazel; Ahmadihangar, Roya Energies 2021 / art. 2018, 25 p. : ill <https://doi.org/10.3390/en14072018> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Comparative analysis of reliability for string and central inverter PV systems in accordance with the FMECA

Dumnic, Boris; Liivik, Elizaveta; Popadic, Bane; Blaabjerg, Frede; Milicevic, Dragan; Katic, Vladimir 2020 IEEE 11th International Symposium on Power Electronics for Distributed Generation Systems (PEDG), 28 Sept.-1 Oct. 2020, Dubrovnik, Croatia 2020 / p. 591-596 <https://doi.org/10.1109/PEDG48541.2020.9244404>

Congestion control strategies for increased renewable penetration of photovoltaic in LV distribution networks

Shabbir, Noman; Kütt, Lauri; Astapov, Victor; Husev, Oleksandr; Ahmadihangar, Roya; Wen, Fushuan; Kull, Karl Energy reports 2022 / p. 217-223 <https://doi.org/10.1016/j.egyr.2022.10.184> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

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>

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>

CZTS (Kesterite) monograin membranes for photoelectrochemical water splitting (preparation and characterization)

Kouhiisfahani, Elham; Samiepour, Ali; Meissner, Dieter TÜ ja TTÜ doktorikool "Funktsionaalsed materjalid ja tehnoloogiad" : 04.-05. märts 2014, Tartu 2014 / [1] p. : ill

Cu₂(Zn_xSn_{2-x})(SySe_{1-y})₄ monograin materials for photovoltaics

Mellikov, Enn; Altosaar, Mare; Raudoja, Jaan; Timmo, Kristi; Volobujeva, Olga; Kauk, Marit; Krustok, Jüri; Varema, Tiit; Grossberg, Maarja; Danilson, Mati; Muska, Katri; Ernits, Kaia; Lehner, Franz; Meissner, Dieter Materials Challenges in Alternative and Renewable Energy: a collection of papers presented at the Materials Challenges in Alternative and Renewable Energy Conference February 21-24, 2010, Cocoa Beach, Florida 2011 / p. 137-142 : ill

Current challenges in operation, performance, and maintenance of photovoltaic panels

Orosz, Tamas; Rassõlkin, Anton; Arsenio, Pedro; Poor, Peter; Valme, Daniil; Sleisz, Adam Energies 2024 / art. 1306 <https://doi.org/10.3390/en17061306>

Current situation and prospect of grid codes for a power system with integrated photovoltaic generation

Duan, Shuyin; Zhang, Shuyan; Wen, Fushuan; Shania, Farhad; Palu, Ivo; Zou, Bo; Dai, Pan 2020 International Conference on Smart Grids and Energy Systems (SGES): 23-26 Nov. 2020 2020 / p. 832-836 <https://doi.org/10.1109/SGES51519.2020.00153>

Damping characteristics of interconnected power systems with wind-photovoltaic-thermal-bundled power transmitted by AC/DC systems

He, Ping; Li, Zhao; Zheng, Mingming; **Wen, Fushuan**; Ji, Yugi; Wu, Xinxin Journal of energy engineering 2021 / p. 04021029-1-04021029-10 : ill [https://doi.org/10.1061/\(ASCE\)EY.1943-7897.0000765](https://doi.org/10.1061/(ASCE)EY.1943-7897.0000765) [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Day-ahead PV output power forecasting utilizing boosting recursive lightGBM-LSTM framework

Hokmabad, Hossein Nourollahi; Husev, Oleksandr; Vinnikov, Dmitri; Belikov, Juri; Petlenkov, Eduard IEEE PES Innovative Smart Grid Technologies Conference Europe (ISGT Europe 2023) : proceedings 2023 / 5 p
<https://doi.org/10.1109/ISGTEUROPE56780.2023.10408090>

DC integration of residential photovoltaic systems : a survey

Abdelrahim Abdelghafour, Omar Mohamed; Chub, Andrii; Vinnikov, Dmitri; Blinov, Andrei IEEE Access 2022 / p. 66974-66991 <https://doi.org/10.1109/ACCESS.2022.3185788> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Design and implementation of flyback MPPT converter for PV-applications

Suskis, Pavels; **Zakis, Janis; Galkin, Ilja** PQ2014 : the 9th International 2014 Electric Power Quality and Supply Reliability Conference (PQ) : June 11-13, 2014, Rakvere, Estonia : proceedings 2014 / p. 291-296 : ill

Design guidelines of new step-up DC/DC converter for fuel cell powered distributed generation systems

Zakis, Janis; Vinnikov, Dmitri; Roasto, Indrek; Strzelecki, Ryszard 8th International Symposium "Topical Problems in the Field of Electrical and Power Engineering" : Doctoral School of Energy and Geotechnology. II : [Pärnu, January 11-16, 2010 : proceedings] 2010 / p. 33-41 : ill

Design of LCL-filter for grid-connected buck-boost inverter based on unfolding circuit

Matiushkin, Oleksandr; Husev, Oleksandr; Vinnikov, Dmitri; Kütt, Lauri 2019 Electric Power Quality and Supply Reliability Conference (PQ) & 2019 Symposium on Electrical Engineering and Mechatronics (SEEM), Kärda, Estonia, June 12-15, 2019 : proceedings 2019 / 4 p. : ill <https://doi.org/10.1109/PQ.2019.8818248>

Development of autonomous food dehydration system based on building integrated photovoltaic thermal technology

Yakobiuk, Dmytro; Jagomägi, Andri; Yakobiuk, Iryna Journal of Renewable and Sustainable Energy 2018 / art. 021002
<https://doi.org/10.1063/1.5000230> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Development of sprayed CuInS₂ thin film absorber for nanostructured solar cell

Katerski, Atanas; Kärber, Erki; Krunks, Malle; Mikli, Valdek; Mere, Arvo Materials Research Society symposium proceedings 2012 [https://www.researchgate.net/publication/271903084_Development_of_sprayed_CuInS₂_thin_film_absorber_for_nanostructured_solar_cell](https://www.researchgate.net/publication/271903084_Development_of_sprayed_CuInS2_thin_film_absorber_for_nanostructured_solar_cell)

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>

Effect of composite layers based on dyes with different type of conductivity on photovoltaic properties of CIS films

Verbitsky, Anatoly; Vertsimakha, Yaroslav; Studzinsky, Sergei; **Bereznev, Sergei** ICEPOM-6 conference abstracts : 6th International Conference on Electronic Processes in Organic Materials : Gurzuf, Crimea, Ukraine, September 25-29, 2006 2006 / p. 54-55
https://www.researchgate.net/publication/233173021_Effect_of_Composite_Layers_Based_on_Dyes_with_Different_Types_of_Conductivity_on_Photo voltaic_Properties_of_CIS_Films

Effect of mission profile resolution on photovoltaic energy yield prediction in Python and MATLAB

Bakeer, Abualkasim Ahmed Ali; Chub, Andrii; Vinnikov, Dmitri; Blaabjerg, Frede 2021 IEEE 15th International Conference on Compatibility, Power Electronics and Power Engineering (CPE-POWERENG) 2021 / 5 p. : ill <https://doi.org/10.1109/CPE-POWERENG50821.2021.9501222>

Emerging converter topologies and control for grid connected photovoltaic systems

2021 <https://doi.org/10.3390/books978-3-03943-910-2>

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>

European roadmap for the En-ActivETICS advancement and potential of the PV/PCM unventilated wall system application

Heim, Dariusz; **Talvik, Martin**; Wieprzkowicz, Anna; **Ilomets, Simo**; Knera, Dominika; **Kalamees, Targo**; Czarny, Dariusz Energy and buildings 2023 / art. 113207 <https://doi.org/10.1016/j.enbuild.2023.113207>

Flexible Cu(In,Ga)Se₂ on Al foils and the effects of Al during chemical bath deposition

Bremaud, D.; Rudmann, D.; Kaelin, M.; **Ernits, Kaia**; Bilger, G.; Döbeli, M.; Zogg, H.; Tiwari, A.N. Thin solid films 2007 / 15, p. 5857-5861 <https://www.sciencedirect.com/science/article/pii/S0040609006016087>

Full soft-switching high step-up DC-DC converter for photovoltaic applications

Blinov, Andrei; Vinnikov, Dmitri; Ivakhno, Volodymyr 2014 16th European Conference on Power Electronics and Applications (EPE'14-ECCE Europe) : Lappeenranta, Finland, 26-28 August 2014. Vol. 4 2014 / p. 2951-2957 : ill

Grid-connected solar PV power plants optimization: a review

Zidane, Tekai Eddine Khalil; Aziz, Ali Saleh; **Zahraoui, Younes**; Kotb, Hossam; Aboras, Kareem M.; Kitmo; Jember, Yosef Berhan IEEE Access 2023 / p. 79588-79608 <https://doi.org/10.1109/ACCESS.2023.3299815>

High efficient photovoltaics in Estonia

Altosaar, Mare; Bereznev, Sergei; Kauk, Marit; Krunks, Malle; Krustok, Jüri; Mellikov, Enn; Raudoja, Jaan; Varema, Tiit Proc. 3rd Workshop held at JRC Ispra, 2-3 Oct. 2003 2004 / p. 179-190

High-efficiency quad-mode parallel PV power optimizer for DC microgrids

Sidorov, Vadim 21st International Symposium "Topical problems in the field of electrical and power engineering. Doctoral school of energy and geotechnology. III" : Pärnu, Estonia, June 15-18, 2022 2022 / p. 59-60 : ill https://www.ester.ee/record=b5504019*est

High-Gain Seven-Level Switched-Capacitor Two-Stage Multi-Level Inverter

Ahmed, Hassan Yousif; **Abdelrahim Abdelghafour, Omar Mohamed**; Ali, Ziad M. Frontiers in Energy Research 2022 / art. 869662 <https://doi.org/10.3389/fenrg.2022.869662>

Hybrid inverter and control strategy for enabling the PV generation dispatch using extra-low-voltage batteries

Meneghetti, Luiz Henrique; **Carvalho da Silva, Edivan Laercio**; Carati, Emerson Giovani; Denardin, Gustavo Weber; da Costa, Jean Patric; de Oliveira Stein, Carlos Marcelo; Cardoso, Rafael Energies 2022 / art. 7539 <https://doi.org/10.3390/en15207539> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Identification of excitons and biexcitons in Sb₂Se₃ under high photoluminescence excitation density

Krustok, Jüri; Kondrotas, Rokas; Nedzinskas, Ramunas; **Timmo, Kristi; Kaupmees, Reelika; Mikli, Valdek; Grossberg, Maarja** Advanced optical materials 2021 / 8 p. : ill <https://doi.org/10.1002/adom.202100107> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Implementation of global maximum power point tracking in photovoltaic microconverters: A survey of challenges and opportunities

Vinnikov, Dmitri; Chub, Andrii; Kosenko, Roman; **Sidorov, Vadim**; Lindvest, Andre IEEE journal of emerging and selected topics in power electronics 2023 / p. 2259-2280: ill <https://doi.org/10.1109/JESTPE.2021.3137521>

Improved maximum power point tracking algorithm for step-up/down partial power converters operating around zero partiality

Yadav, Neelesh; Hassanpour, Naser; Chub, Andrii; Blinov, Andrei; Vinnikov, Dmitri IEEE journal of emerging and selected topics in power electronics 2024 / p. 1984-1994 <https://doi.org/10.1109/JESTPE.2024.3354843>

Increasing PV hosting capacity in LV distribution networks using congestion control techniques

Shabbir, Noman 21st International Symposium "Topical problems in the field of electrical and power engineering. Doctoral school of energy and geotechnology. III" : Pärnu, Estonia, June 15-18, 2022 2022 / p. 87-88 https://www.ester.ee/record=b5504019*est

Influence of PH on the hydroxide impurities in chemically deposited CDS thin film

Üürke, Marvin; Maticiu, Natalia; Volobujeva, Olga; Spalatu, Nicolae; Hiie, Jaan The 14th International Conference of Young Scientists on Energy Issues : Kaunas, Lithuania, May 25-26, 2017 2017 / p. X-316 - X-323 : ill http://cyseni.com/archives/proceedings/Proceedings_of_CYSENI_2017.pdf

Influence of vapour transport deposition conditions on properties of SB₂SE₃ thin film absorber and solar cells

Gopi, Sajeesh Vadakkedath; Spalatu, Nicolae; Katerski, Atanas; Krunks, Malle; Oja Acik, Ilona Graduate School of Functional Materials and Technology (GSFMT) Scientific Conference : abstracts 2022 / 18 l. [Graduate School of Functional Materials and Technology \(GSFMT\) Scientific Conference 2022](#)

Integration of PV system with SMES based on model predictive control for utility grid reliability improvement

Bakeer, Abualkasim Ahmed Ali; Salama, Hossam S.; Vokony, Istvan Protection and Control of Modern Power Systems 2021 / art. 14 <https://doi.org/10.1186/s41601-021-00191-1> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Kalman-filter based maximum power point tracking for a single-stage grid-connected photovoltaic system

Farrokhi, Ehsan; Ghoreishy, Hoda; **Ahmadihangar, Roya; Rosin, Argo** IECON 2021 – 47th Annual Conference of the IEEE Industrial Electronics Society 2021 / Code 173927 <https://doi.org/10.1109/IECON48115.2021.9589653> [Conference Proceedings at Scopus](#) [Article at Scopus](#) [Article at WOS](#)

Kesterite monograins for solar cells and water splitting applications

Oueslati, Souhaib; Pilvet, Maris; Grossberg, Maarja; Kauk-Kuusik, Marit; Krustok, Jüri; Meissner, Dieter Thin solid films 2021 / art. 138981 <https://doi.org/10.1016/j.tsf.2021.138981> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

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>

Manganese-substituted kesterite thin-films for earth-abundant photovoltaic applications

Trifiletti, Vanira; Frioni, Luigi; Tseberlidis, Giorgio; Vitiello, Elisa; **Danilson, Mati; Grossberg, Maarja;** Acciarri, Maurizio; Binetti, Simona; Marchionna, Stefano Solar energy materials and solar cells 2023 / art. 112247, 13 p. : ill <https://doi.org/10.1016/j.solmat.2023.112247>

Materials design and bonding : general discussion

Agbenyeke, Raphael; Andreassen, 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>

New concepts and materials for sustainable photovoltaics

Krunks, Malle SustainChem2011 : International Conference on Materials and Technologies for Green Chemistry jointly with Workshop of COST Action CM0903 (UBIOCHEM-II) : September 5-9, 2011, Tallinn, Estonia : abstract book and program 2011 / p. 24

New high-gain transformerless DC/DC boost converter system

Ahmed, Hassan Yousif; **Abdelrahim Abdelghafour, Omar Mohamed;** Ali, Ziad M. Electronics 2022 / art. 734 <https://doi.org/10.3390/electronics11050734> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

A new six-level transformer-less grid-connected solar photovoltaic inverter with less leakage current

Vosoughi Kurdkandi, Naser; Marangalu, Milad Ghavipanjeh; Mohammadsalehian, Shamim; Tarzamni, Hadi; Siwakoti, Yam P.; Islam, Md. Rabiul; Muttaqi, Kashem M. IEEE Access 2022 / p. 63736 - 63753: ill <https://doi.org/10.1109/ACCESS.2022.3182240> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Noble metal nanoparticles for improvement of fluorescent and photovoltaic materials

Dolgov, Leonid; **Oja Acik, Ilona; Mere, Arvo; Krunks, Malle; Mikli, Valdek** The international summer school "Nanotechnology: from fundamental research to innovations" and International research and practice conference "Nanotechnology and nanomaterials" (NANO-2013), 25 August-1 September, 2013, Bukovel, Ukraine : book of abstracts 2013 / p. 352

A novel isolated Buck-Boost DC-DC converter with wide range of voltage regulations

Afshari, Hossein; Husev, Oleksandr; Vinnikov, Dmitri 2023 IEEE 17th International Conference on Compatibility, Power Electronics and Power Engineering (CPE-POWERENG) 2023 / 6 p <https://doi.org/10.1109/CPE-POWERENG58103.2023.10227443>

Novel universal power electronic interface for integration of pv modules and battery energy storages in residential dc microgrids

Sidorov, Vadim; Chub, Andrii; Vinnikov, Dmitri; Lindvest, Andre IEEE Access 2023 / p. 30845-30858 <https://doi.org/10.1109/ACCESS.2023.3260640>

Optical and photosensitive properties of lamellar nanocomposites obtained by Cd intercalation of GaTe

Leontie, Liviu; Evtodiev, Igor; **Spalatu, Nicolae** Journal of alloys and compounds 2014 / p. 542-545 : ill

Optimization of renewable energy for buildings with energy storages and 15-minute power balance

Savolainen, Rebecka; Lahdelma, Risto Energy 2022 / art. 123046 <https://doi.org/10.1016/j.energy.2021.123046> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Optimized energy scheduling of residential DC building: Case of Nordic climate

Sidorova, Aleksandra; Blinov, Andrei; Ahmadihangar, Roya; Vinnikov, Dmitri; Vösa, Karl-Villem; Kurnitski, Jarek 2023 IEEE 17th International Conference on Compatibility, Power Electronics and Power Engineering (CPE-POWERENG) 2023 / 7 p <https://doi.org/10.1109/CPE-POWERENG58103.2023.10227437>

Overview of solar photovoltaic applications for district heating and cooling

Sukumaran, Sreenath; Laht, Janika; Volkova, Anna Environmental and Climate Technologies / p. 964-979 <https://doi.org/10.2478/rtuct-2023-0070>

Performance evaluation of the universal photovoltaic string converter during the operation in DC microgrid environment

Matiushkin, Oleksandr; Vinnikov, Dmitri; Husev, Oleksandr IECON 2021 – 47th Annual Conference of the IEEE Industrial Electronics Society, 2021 2021 / p. 1-6 : ill <https://doi.org/10.1109/IECON48115.2021.9589473> [Conference Proceedings at Scopus](#) [Article at Scopus](#) [Article at WOS](#)

Photoreflectance and photoluminescence study of antimony selenide crystals

Kondrotas, Rokas; Nedzinskas, Ramunas; **Krustok, Jüri**; **Grossberg-Kuusk, Maarja**; Talaikis, Martynas; Tumėnas, Saulius; Suchodolskis, Arturas; Žaltauskas, Raimundas; Sereika, Raimundas ACS Applied Energy Materials 2022 / p. 14769-14778
<https://doi.org/10.1021/acsaem.2c02131> [Journal metrics at Scopus](#) [Article at scopus](#) [Journal metrics at WOS](#) [Article at Scopus](#)

Photovoltaic microconverter with integrated sub-modular power optimizer

Maheri, Hamed Mashinchi; **Chub, Andrii**; **Vinnikov, Dmitri**; **Blinov, Andrei** IEEE 15th International Conference on Compatibility, Power Electronics and Power Engineering (CPE-POWERENG) 2021 / p. 1-6 <https://doi.org/10.1109/CPE-POWERENG50821.2021.9501179>

Photovoltaic module and submodule level power electronics and control

Spagnuolo, Giovanni; Kouro, Samir; **Vinnikov, Dmitri** IEEE Transactions on Industrial Electronics 2019 / p. 3856 - 3859
<https://doi.org/10.1109/TIE.2018.2883187> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Photovoltaics based on semiconductor powders

Meissner, Dieter The Proceedings of the 1st International Porous and Powder Materials Symposium and Exhibition PPM 2013 : 3-6 September 2013 Çeşme Izmir-TURKEY 2013 / p. 405-416 : ill

Photovoltaics based on semiconductor powders

Meissner, Dieter Materials and processes for energy : communicating current research and technological developments [E-book] 2013 / p. 114-125 : ill <http://www.formatex.info/energymaterialsbook/chapters.html>

A post-deposition annealing approach for organic residues control in TiO₂ and its impact on Sb₂Se₃/TiO₂ device performance

Koltsov, Mykhailo; **Krautmann, Robert**; **Katerski, Atanas**; Maticiuc, Natalia; **Krunks, Malle**; **Oja Acik, Ilona**; **Spalatu, Nicolae** Faraday Discussions 2022 / p. 273-286 <https://doi.org/10.1039/D2FD00064D> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Problems in the operating and calculation of payback of photovoltaic systems in buildings

Saikovski, Valeri 2017 IEEE 58th International Scientific Conference on Power and Electrical Engineering of Riga Technical University (RTUCon) : proceedings : Latvia, Riga, 12-13 October, 2017 2017 / [4] p. : ill <https://doi.org/10.1109/RTUCon.2017.8125624>

Quality of photovoltaic modules, experimental evaluation and mathematical modelling

Tšukrejev, Pavel; **Karjust, Kristo**; **Majak, Jüri** IOP conference series : materials science and engineering 2021 / art. 012044, 7 p. : ill <https://doi.org/10.1088/1757-899X/1140/1/012044>

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>

Rapid thermal processing of Kesterite thin films

Ganchev, Maxim; Spasova, Stanka; **Raadik, Taavi**; **Mere, Arvo**; **Altosaar, Mare**; **Mellikov, Enn** Coatings 2023 / art. 1449 <https://doi.org/10.3390/coatings13081449>

Receding-horizon based optimal dispatch of virtual power plant considering stochastic dynamic of photovoltaic generation

Xu, Yan; **Liu, Zuoyu**; **Wen, Fushuan**; **Palu, Ivo** Energy Conversion and Economics 2021 / p. 45–53 <https://doi.org/10.1049/enc2.12027>

SB₂S₃ thin film solar cells by ultrasonic spray pyrolysis

Eensalu, Jako Siim; **Katerski, Atanas**; **Kärber, Erki**; **Oja Acik, Ilona**; **Krunks, Malle** GSFMT Scientific Conference 2020 : Tallinn, February 4-5, 2020 : abstracts 2020 / p. 22 <http://fmt.dk.ut.ee/wp-content/uploads/2020/01/GSFMT2020.pdf>

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/acsaami.3c08547>

Self-healing photovoltaic microconverter with zero redundancy and accurate low-cost fault detection

Bakeer, Abualkasim Ahmed Ali; **Chub, Andrii**; **Vinnikov, Dmitri** IEEE transactions on industrial electronics 2024 / p. 646-656 <https://doi.org/10.1109/TIE.2023.3250836>

Shade-tolerant PV microconverters

Sidorov, Vadim; **Bakeer, Abualkasim Ahmed Ali**; **Maheri, Hamed Mashinchi**; **Hassanpour, Naser**; **Rahman, Showrov**; **Chub, Andrii** Distributed Energy Systems 2023 / p. 1-22 <https://doi.org/10.1201/9781003229124-17>

Simulations of benzene and hydrogen-sulfide gas detector based on single-walled carbon nanotube over intrinsic 4H-SiC substrate

Rashid, Muhammad Haroon; Koel, Ants; Rang, Toomas; Ziko, Mehadi Hasan Micromachines 2020 / art. 453, 13 p. : ill <https://doi.org/10.3390/mi11050453> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

A sophisticated modeling approach for photovoltaic systems in load frequency control

Bakeer, Abualkasim Ahmed Ali; Magdy, Gaber; Chub, Andrii; Bevrani, Hassan International journal of electrical power and energy systems 2022 / art. 107330, 12 p. : ill <https://doi.org/10.1016/j.ijepes.2021.107330> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Spatially resolved opto-electrical performance investigations of Cu₂ZnSnS_{3.2}Se_{0.8} photovoltaic devices

Neubauer, Christian; Samiepour, Ali; Oueslati, Souhaib; Ernits, Kaia; Meissner, Dieter Energy Science & Engineering 2018 / p. 563-569 : ill <https://doi.org/10.1002/ese3.232> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

State coordinated voltage control in an active distribution network with on-load tap changers and photovoltaic systems

Singh, Praveen Prakash; Palu, Ivo Global Energy Interconnection 2021 / 9 p. : ill <https://doi.org/10.1016/j.gloi.2021.05.005> [Journal metrics at Scopus](#) [Article at Scopus](#) [Article at WOS](#)

Step-Up series resonant DC-DC converter with bidirectional-switch-based boost rectifier for wide input voltage range photovoltaic applications

Bakeer, Abualkasim Ahmed Ali; Chub, Andrii; Vinnikov, Dmitri Energies 2020 / Art. 3747 <https://doi.org/10.3390/en13143747> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Step-up/down partial power converter with enhanced MPPT efficiency around zero partiality

Yadav, Neelesh; Chub, Andrii; Hassanpour, Naser; Blinov, Andrei; Vinnikov, Dmitri 2023 IEEE 64th International Scientific Conference on Power and Electrical Engineering of Riga Technical University (RTUCON), Riga, Latvia, October 9-10, 2023 : conference proceedings 2023 / 6 p <https://doi.org/10.1109/RTUCON60080.2023.10412980>

Study of Cu₂Ge(S,Se)₃ and Cu₂CdGe(S,Se)₄ monograin powders for photovoltaic applications

Li, Xiaofeng; Timmo, Kristi; Kauk-Kuusik, Marit Graduate School of Functional Materials and Technology (GSFMT) Scientific Conference : abstracts 2022 / 32 l. [Graduate School of Functional Materials and Technology \(GSFMT\) Scientific Conference 2022](#)

Synthesis and characterization of tetrahedrite absorber materials for photovoltaic application

Ghisani, Fairouz; Timmo, Kristi; Altosaar, Mare Graduate School of Functional Materials and Technology (GSFMT) Scientific Conference : abstracts 2022 / 17 l. [Graduate School of Functional Materials and Technology \(GSFMT\) Scientific Conference 2022](#)

Terahertz radiation from nonstoichiometric CuInSe₂ films excited by femtosecond laser pulses

Adomavicius, Ramunas; Krotkus, Arunas; Kois, Julia; Bereznev, Sergei; Mellikov, Enn Applied physics letters 2005 / 19, [3] p <https://doi.org/10.1063/1.2126796>

The effect of S/Se ratio on the properties of Cu₂CdGe(S_xSe_{1-x})₄ monograin powders for photovoltaic applications

Li, Xiaofeng; Kauk-Kuusik, Marit; Timmo, Kristi; Pilvet, Maris; Grossberg, Maarja; Raadik, Taavi; Danilson, Mati; Mikli, Valdek GSFMT Scientific Conference 2020 : Tallinn, February 4-5, 2020 : abstracts 2020 / p. 52 <http://fmtdk.ut.ee/wp-content/uploads/2020/01/GSFMT2020.pdf>

The nexus of energy for free and world society

Wittmann, Veronika; Meissner, Dieter Proceedings of 2018 6th International Renewable and Sustainable Energy Conference (IRSEC) 2019 / 6 p. : ill <https://doi.org/10.1109/IRSEC.2018.8702953>

The nexus of energy for free and world society

International journal of sustainable energy development 2019 / p. 384-391 : ill <https://doi.org/10.20533/ijsed.2046.3707.2019.0046>

The potential of distribution grid as an alternative source for reactive power control in transmission grid

Astapov, Victor; Divshali, Poria; Söder, Lennart 2018 19th International Scientific Conference on Electric Power Engineering (EPE 2018) : Brno, Czech Republic, 16-18 May, 2018 2018 / p. 64-69 : ill <https://doi.org/10.1109/EPE.2018.8396031>

Thin films by chemical spray pyrolysis for photovoltaic applications

Krunk, Malle 1st Central and Eastern European Conference on Thermal Analysis and Calorimetry (CEEC-TAC1), 7-10 September 2011, Craiova, Romania : book of abstracts 2011 / p. 43

Three-level T-type qZ source inverter as grid-following unit for distributed energy resources

Gutierrez-Escalona, Javier; Roncero-Clemente, Carlos; Husev, Oleksandr; Barrero-Gonzalez, Fermin; Llor, Ana M.; Fernao Pires, Vitor IEEE journal of emerging and selected topics in power electronics 2022 / p. 7772-7785 <https://doi.org/10.1109/JESTPE.2022.3193258> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Topological review of quasi-switched boost inverters

Barath, Jayakumar Geetha Nataraj; Soundarrajan, Ayyasamy; Stepenko, Serhii; **Husev, Oleksandr; Vinnikov, Dmitri**; Nguyen, Minh-Khai Electronics 2021 / art. 1485 <https://doi.org/10.3390/electronics10121485> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Topology morphing control of low-cost PV microconverters

Mashinchi Maheri, Hamed; Vinnikov, Dmitri; Chub, Andrii; Sidorov, Vadim 2021 IEEE 19th International Power Electronics and Motion Control Conference (PEMC), 25-29 April 2021, Gliwice, Poland : proceedings 2021 <https://doi.org/10.1109/PEMC48073.2021.9432496>

Topology-morphing photovoltaic microconverter with wide MPPT voltage window and post-fault operation capability

Vinnikov, Dmitri; Chub, Andrii; Zinchenko, Denys; Sidorov, Vadim IEEE Access 2020 / art. 9171332, p. 153941-153955 : ill <https://doi.org/10.1109/ACCESS.2020.3017805> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Ultrawide voltage gain range microconverter for integration of silicon and thin-film photovoltaic modules in DC microgrids

Chub, Andrii; Vinnikov, Dmitri; Korkh, Oleksandr; Malinowski, Mariusz; Kouro, Samir IEEE transactions on power electronics 2021 / p. 13763-13778 <https://doi.org/10.1109/TPEL.2021.3084918> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Wear-out failure analysis of solar optiverter operating with 60- and 72-cell Si crystalline PV modules

Liivik, Liisa; Chub, Andrii; Sangwongwanich, Ariya; Shen, Yanfeng; **Vinnikov, Dmitri**; Blaabjerg, Frede IECON 2018 - 44th Annual Conference of the IEEE Industrial Electronics Society : proceedings 2018 / p. 6134-6140 : ill <https://doi.org/10.1109/IECON.2018.8592925>

Verification of utility-scale solar photovoltaic plant models for dynamic studies of transmission networks

Machlev, Ram; Batushansky, Zohar; Soni, Sachin; Chadliev, Vladimir; **Belikov, Juri**; Levron, Yoash Energies 2020 / art. 3191, 20 p. : ill <https://doi.org/10.3390/en13123191> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)