

### **Adaptive frequency-based power management for off-grid hybrid photovoltaic converters**

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### **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](#)

### **Ainult enda päikesepaneelidest jääb energiakindluse tagamiseks väheks**

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### **Akadeemik : tööstuses võiks olla rohkem doktorikraadiga juhte**

Mihkelsaar, M.; Grossberg-Kuusk, Maarja novaator.err.ee 2024 [Akadeemik: tööstuses võiks olla rohkem doktorikraadiga juhte](#)

### **An alternative chlorine-assisted optimization of CdS/Sb<sub>2</sub>Se<sub>3</sub> solar cells : towards understanding of chlorine incorporation mechanism**

**Gopi, Sajeesh Vadakkedath**; **Spalatu, Nicolae**; **Katerski, Atanas**; Kulicek, Jaroslav; Razek, Bohuslav; Ukraintsev, Egor; Barinkova, Marketa Šlapal; Zoppi, Guillaume; **Krunks, Malle**; **Oja Acik, Ilona** Journal of alloys and compounds 2024 / art. 176175 <https://doi.org/10.1016/j.jallcom.2024.176175> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

### **Amorphous Zn(O,Se) buffer layer for Cu(In,Ga)Se<sub>2</sub> thin film solar cells**

**Abdalla, Akram**; **Danilson, Mati**; **Oueslati, Souhaib**; **Pilvet, Maris**; **Bereznev, Sergei** Materials science in semiconductor processing 2021 / art. 105862 <https://doi.org/10.1016/j.mssp.2021.105862> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

### **Analysis of cost function composition based on the horizon time prediction of an indirect MPC current control in single-phase grid-connected PV inverters**

**Pimentel, Sergio Pires**; **Husev, Oleksandr**; **Vinnikov, Dmitri**; **Stepenko, Serhii** 2019 IEEE 60th International Scientific Conference on Power and Electrical Engineering of Riga Technical University (RTUCON), 7-9 October 2019 : conference proceedings 2019 / 6 p. : ill <https://doi.org/10.1109/RTUCON48111.2019.8982377>

### **Analysis of grain orientation and defects in Sb<sub>2</sub>Se<sub>3</sub> solar cells fabricated by close-spaced sublimation**

**Krautmann, Robert**; **Spalatu, Nicolae**; Gunder, Rene; Abou-Ras, Daniel; Unold, Thomas; Schorr, Susan; **Oja Acik, Ilona**; **Krunks, Malle** GSFMT Scientific Conference 2021 : Tartu, June 14-15, 2021 : abstracts 2021 / P 17 [https://fntdk.ut.ee/wp-content/uploads/2021/06/GSFMT\\_abstractbook\\_2021.pdf](https://fntdk.ut.ee/wp-content/uploads/2021/06/GSFMT_abstractbook_2021.pdf)

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### **Anisotroopsetel õhukesekilelistel absorbermaterjalidel põhinevad päikeseplatereid : disain ja säästlike tehnoloogiate arendus**

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### **Asymmetric NDI electron transporting SAM materials for application in photovoltaic devices**

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### **The band structure of CuInTe<sub>2</sub> studied by optical reflectivity**

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### **Battery size optimization with customer PV installations and domestic load profile**

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### **Broad-band photoluminescence of donor-acceptor pairs in tetrahedrite Cu<sub>10</sub>Cd<sub>2</sub>Sb<sub>4</sub>S<sub>13</sub> microcrystals**

**Krustok, Jüri; Raadik, Taavi; Kaupmees, Reelika; Ghisani, Fairouz; Timmo, Kristi; Altosaar, Mare; Mikli, Valdek; Grossberg, Maarja** Journal of physics D: applied physics 2021 / art. 105102, 7 p. : ill <https://doi.org/10.1088/1361-6463/abce29> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

### **Bulk and interface recombination in TiO<sub>2</sub>/Sb<sub>2</sub>Se<sub>3</sub> solar cells**

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### **Deposition and characterization of zinc-tin oxide thin films with varying material compositions**

Spasova, Stanka; Dulev, Vladimir; Benkovsky, Alexander; Palankovski, Vassil; Radeva, Ekaterina; Stoykov, Rumen; Nenova, Zoya; Dikov, Hristosko; **Katerski, Atanas; Volobujeva, Olga** Coatings 2025 / art. 225 <https://doi.org/10.3390/coatings15020225>

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#### Detailed photoluminescence study of Cu<sub>2</sub>Ge(SSe)<sub>3</sub> microcrystals

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Roncero-Clemente, Carlos; **Husev, Oleksandr; Matiushkin, Oleksandr;** Gutierrez-Escalona, Javier; Barrero-Gonzalez, Fermin; **Vinnikov, Dmitri;** Strzelecki, Ryszard IEEE journal of emerging and selected topics in power electronics 2024 / p. 1348-1358 <https://doi.org/10.1109/JESTPE.2023.3247960> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

### Flexible Cu(In,Ga)Se<sub>2</sub> 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>

### Flexible solar cells based on copper tape : hybrid organic-inorganic structures

**Bereznev, Sergei; Kois, Julia; Mellikov, Enn; Öpik, Andres** Proceedings of the IASTED International Conference Energy and Power Systems : March 29-31, 2006, Chiang Mai, Thailand 2006 / p. 161-164 : ill [https://www.researchgate.net/publication/288789183\\_Flexible\\_solar\\_cells\\_based\\_on\\_copper\\_tape\\_Hybrid\\_organic-inorganic\\_structures](https://www.researchgate.net/publication/288789183_Flexible_solar_cells_based_on_copper_tape_Hybrid_organic-inorganic_structures)

### Formation and characterization of stable TiO<sub>2</sub>/Cu<sub>x</sub>O-based solar cells

Wis, Grzegorz; Sawicka-Chudy, Paulina; **Sibinski, Maciej;** Yavorskyi, Rostyslav; Łabuz, Mirosław; Płoch, Dariusz; Bester, Mariusz Materials 2023 / art. 5683, 15 p. : ill <https://doi.org/10.3390/ma16165683> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

### Formation and growth of Cu<sub>II</sub>ZnSnS<sub>II</sub> monograin powder on molten Cd<sub>II</sub> = Cu<sub>II</sub>ZnSnS<sub>II</sub> moodustumine ja monoterapulbri kasv Cd<sub>II</sub> sulafaasi keskkonnas

**Nkwusi, Godswill** 2017 <https://digi.lib.ttu.ee/ii/?7690> [https://www.ester.ee/record=b4678707\\*est](https://www.ester.ee/record=b4678707*est)

### Formation of Cu<sub>II</sub>ZnSnS<sub>II</sub> and Cu<sub>II</sub>ZnSnSe<sub>II</sub> by chalcogenisation of electrochemically deposited precursor layers = Cu<sub>II</sub>ZnSnSe<sub>II</sub> ja Cu<sub>II</sub>ZnSnS<sub>II</sub> moodustumine elektrokeemiliselt sadestatud kihtide kalkogeniseerimisel

**Lehner, Julia** 2014 [https://www.ester.ee/record=b3080859\\*est](https://www.ester.ee/record=b3080859*est)

### Formation of properties of CuInSe<sub>2</sub> and Cu<sub>2</sub>ZnSn(S,Se)<sub>4</sub> monograin powders synthesized in molten KI =

Kaaliumjodiidsulandaja keskkonnas kasvatatud monoterapulbrite CuInSe<sub>II</sub> ja Cu<sub>II</sub>ZnSn(S,Se)<sub>II</sub> omaduste kujundamine

Timmo, Kristi 2011

#### **4.9 % efficient Sb<sub>2</sub>S<sub>3</sub> 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](#)

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**Altosaar, Mare; Danilson, Mati; Kauk, Marit; Krustok, Jüri; Mellikov, Enn; Raudoja, Jaan; Timmo, Kristi; Varema, Tiit** Solar energy materials and solar cells 2005 / p. 25-32 : ill

#### **Glass/ITO/In(O,S)/CuIn(S,Se)<sub>2</sub> solar cell with conductive polymer window layer**

**Kois, Julia; Bereznev, Sergei; Raudoja, Jaan; Mellikov, Enn; Öpik, Andres** Solar energy materials and solar cells 2005 / p. 657-665 : ill <https://www.sciencedirect.com/science/article/abs/pii/S0927024804003836>

#### **Glassy GaS: transparent and unusually rigid thin films for visible to mid-IR memory applications**

Tverjanovich, Andrey; Khomenko, Maksym; **Bereznev, Sergei;** Fontanari, Daniele; Sokolov, Anton; Usuki, Takeshi; Ohara, Koji; Le Coq, David; Masselin, Pascal; Bychkov, Eugene Physical chemistry chemical physics 2020 / p. 25560–25573 <https://doi.org/10.1039/D0CP04697C> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

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**Matiushkin, Oleksandr; Husev, Oleksandr;** Fesenko, Artem; **Vinnikov, Dmitri** 2020 IEEE 61st International Scientific Conference on Power and Electrical Engineering of Riga Technical University (RTUCON), Riga, Latvia, Nov. 5-7, 2020 : conference proceedings 2020 / 7 p. : ill <https://doi.org/10.1109/RTUCON51174.2020.9316589>

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#### **Growth and characterization of Cu<sub>2</sub>Zn<sub>1-x</sub>FexSn<sub>4</sub> thin films for photovoltaic applications**

Trifiletti, Vanira; Tseberlidis, Giorgio; Colombo, Mario; Spinardi, Alberto; Luong, Sally; **Danilson, Mati; Grossberg, Maarja;** Fenwick, Oliver; Binetti, Simona Materials 2020 / art. 1471, 13 p. : ill <https://doi.org/10.3390/ma13061471> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

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**Mellikov, Enn; Altosaar, Mare; Kauk-Kuusik, Marit; Timmo, Kristi; Meissner, Dieter; Grossberg, Maarja; Krustok, Jüri; Volobujeva, Olga** Copper zinc tin sulfide-based thin film solar cells 2015 / p. 289-309 : ill

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**Sibinski, Maciej;** Sawicka-Chudy, Paulina; Wisz, Grzegorz; Gnida, Pawel; Schab-Balcerzak, Ewa; Wal, Andrzej; Yavorskyi, Rostyslav; Cholewa, Marian Scientific reports 2024 / art. 10676 <https://doi.org/10.1038/s41598-024-61512-6> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

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### **Impact of Cu<sub>2</sub>ZnSn(SexS<sub>1-x</sub>)<sub>4</sub> (x=0.3) compositional ratios on the monograin powder properties and solar cells**

Muska, Katri; Kauk-Kuusik, Marit; Grossberg, Maarja; Altosaar, Mare; Pilvet, Maris; Varema, Tiit; Timmo, Kristi; Volobujeva, Olga; Mere, Arvo Thin solid films 2013 / p. 35-38 : ill <https://doi.org/10.1016/j.tsf.2012.10.031> Journal metrics at Scopus Article at Scopus Journal metrics at WOS Article at WOS

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Mashinchi Maheri, Hamed; Vinnikov, Dmitri; Chub, Andrii; Sidorov, Vadim; Liivik, Elizaveta Energies 2020 / art. 5645, 21 p <https://doi.org/10.3390/en13215645> Journal metrics at Scopus Article at Scopus Journal metrics at WOS Article at WOS

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Jegorove, Aiste; Mandati, Srekanth; 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.nanoge.org/proceedings/HOPV22/62596b7159d9502382511011>

### **Influence of alkali iodide fluxes on Cu<sub>2</sub>ZnSnS<sub>4</sub> monograin powder properties and performance of solar cells**

Timmo, Kristi; Pilvet, Maris; Muska, Katri; Altosaar, Mare; Mikli, Valdek; Kaupmees, Reelika; Josepson, Raavo; Krustok, Jüri; Grossberg-Kuusk, Maarja; Kauk-Kuusik, Marit Materials advances 2023 / p. 4509-4519 : ill <https://doi.org/10.1039/D3MA00444A> Journal metrics at Scopus Article at Scopus Journal metrics at WOS Article at WOS

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#### **Influence of sulfur source on growth of in-air sprayed ultrathin film Sb<sub>2</sub>S<sub>3</sub> for enhanced solar cell performance**

**Asare, Ernest A.; Katerski, Atanas; Kriisa, Merike; Josepson, Raavo;** Rotaru, Victoria; Guc, Maxim; Payno Zarceno, David; **Navarro-Güell, Alejandro;** Grzibovskis, Raitis; Vembris, Aivars; **Spalatu, Nicolae; Krunks, Malle; Oja Acik, Ilona** ACS applied materials & interfaces 2025 / p. 64753-64770 <https://doi.org/10.1021/acsami.5c17869>

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#### **Kahe fotoelektrilise päikeseenergia kasutamise süsteemi (PS) analüüs esimese töötamisaasta andemete alusel.**

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**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](#)

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**Sibinski, Maciej** novaator.err.ee 2024 [Kleenukesed päikeseelemendid aitaks vältida ränipaneele ootavat kriisi](#)

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**Mandati, Sreekanth;** Dileep, K. Reshma; Veerappan, Ganapathy; Ramasamy, Easwaramoorthi Solar Energy 2022 / p. 258-268  
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Rosa, Carlos; **Vinnikov, Dmitri;** Romero-Cadaval, Enrique; Pires, Vitor; Martins, Joao CPE 2013 : 2013 International Conference on Compatibility and Power Electronics (CPE) : June 5-7, 2013, Ljubljana, Slovenia : conference proceedings 2013 / p. 58-62 : ill [CD-ROM]

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