

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

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### **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](#)

### **Comprehensive study of photoluminescence and device properties in Cu<sub>2</sub>Zn(Sn<sub>1-x</sub>Gex)<sub>4</sub> monograins and monograin layer solar cells**

Mengü, Idil; Muska, Katri; Pilvet, Maris; Mikli, Valdek; Dudutiene, Evelina; Kondrotas, Rokas; Krustok, Jüri; Kauk-Kuusik, Marit; Grossberg-Kuusk, Maarja Solar energy materials and solar cells 2024 / art. 113124 <https://doi.org/10.1016/j.solmat.2024.113124> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

### **Cost-effective fluorene and thiophene containing hole conductors towards semi-transparent Sb<sub>2</sub>S<sub>3</sub> 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>

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

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### **Detailed insight into the CZTS/CdS interface modification by air annealing in monograin layer solar cells**

Kauk-Kuusik, Marit; Timmo, Kristi; Muska, Katri; Pilvet, Maris; Krustok, Jüri; Josepson, Raavo; Brammertz, Guy; Vermang, Bart; Danilson, Mati; Grossberg, Maarja ACS Applied Energy Materials 2021 / p. 12374–12382 <https://doi.org/10.1021/acsaem.1c02186> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

### **Economic pulse electrodeposition for flexible CuInSe(2)solar cells**

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### **Effect of absorber surface modification on the optoelectronic properties of Cu<sub>2</sub>CdGeSe<sub>4</sub> solar cells**

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### **Effects of selenisation temperature on photoluminescence and photoluminescence excitation spectra of ZnO/CdS/Cu<sub>2</sub>ZnSnSe<sub>4</sub>/Mo/glass**

Sulimov, Mikhail A.; Yakushev, M. V.; Marquez-Prieto, J.; Krustok, Jüri Thin solid films 2019 / p. 146-151 : ill <https://doi.org/10.1016/j.tsf.2019.01.002> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

### **Efficiency enhancement of Cu<sub>2</sub>ZnSnS<sub>4</sub> monograin layer solar cells via absorber post-growth treatments**

Timmo, Kristi; Dolcet Sadurni, Marc; Pilvet, Maris; Muska, Katri; Altosaar, Mare; Mikli, Valdek; Atlan, Fabien; Guc, Maxim; Izquierdo-Roca, Victor; Grossberg-Kuusk, Maarja; Kauk-Kuusik, Marit Solar energy materials and solar cells 2023 / art. 112090 <https://doi.org/10.1016/j.solmat.2022.112090> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

### **Electronic and structural characterisation of Cu<sub>3</sub>BiS<sub>3</sub> thin films for the absorber layer of sustainable photovoltaics**

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### **Enhanced efficiency of hybrid amorphous silicon solar cells based on single-walled carbon nanotubes and polymer composite thin film**

Rajanna, Pramod M.; Gilshteyn, Evgenia P.; Yagafarov, Timur; Alekseeva, Alena A.; Anisimov, Anton S.; Neumüller, Alex; Sergeev, Oleg; Bereznev, Sergei; Maricheva, Jelena; Nasibulin, Albert Nanotechnology 2018 / 10 p. : ill <https://doi.org/10.1088/1361-6528/aaa647> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

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

Wisz, 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](#)

### **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/acsaem.2c04097> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

## Impact of blocking layers based on TiO<sub>2</sub> and ZnO prepared via direct current reactive magnetron sputtering on DSSC solar cells

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## Impact of Li and K co-doping on the optoelectronic properties of CZTS monograin powder

**Muska, Katri; Timmo, Kristi; Pilvet, Maris; Kaupmees, Reelika; Raadik, Taavi; Mikli, Valdek; Grossberg-Kuusk, Maarja; Krustok, Jüri; Josepson, Raavo;** Lange, Sven; **Kauk-Kuusik, Marit** Solar energy materials and solar cells 2023 / art. 112182 : ill <https://doi.org/10.1016/j.solmat.2023.112182> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

## Influence of order-disorder in Cu<sub>2</sub>ZnSnS<sub>4</sub> powders on the performance of monograin layer solar cells

**Timmo, Kristi; Kauk-Kuusik, Marit; Pilvet, Maris; Raadik, Taavi; Altosaar, Mare; Danilson, Mati; Grossberg, Maarja; Raudoja, Jaan;** Ernits, Kaia Thin solid films 2017 / p. 122-126 : ill <https://doi.org/10.1016/j.tsf.2016.10.017> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

## Investigation of the solar cell materials Cu(In,Ga)Se<sub>2</sub> and Cu<sub>2</sub>ZnSnS<sub>4</sub> with muon spin spectroscopy and density-functional calculations

Vilao, Rui C.; Marinopoulos, Apostolos G.; dos Santos, Diego Garcia; Alberto, Helena Vieira; Gil, Joao Campos; Mengyan, Patrick W.; **Kauk-Kuusik, Marit;** Lord, James; Weidinger, Alois Journal of applied physics 2024 / art. 055704 <https://doi.org/10.1063/5.0205837> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

## Investigation of the structural, optical and electrical properties of Cu<sub>3</sub>BiS<sub>3</sub> semiconducting thin films

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## Optimization of the Sb<sub>2</sub>S<sub>3</sub> shell thickness in ZnO nanowire-based extremely thin absorber solar cells

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## Producing pyrite based solar panels for the future lunar habitat

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## Radiative recombination in Cu<sub>2</sub>ZnSnSe<sub>4</sub> thin films with Cu deficiency and Zn excess

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## Sb<sub>2</sub>S<sub>3</sub> thin films by ultrasonic spray in air : formation and application insolar cells

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

**Selenisation of sequentially electrodeposited Cu-Zn and Sn precursor layers**

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**Solar energy harvesting through photovoltaic and photoelectrochemical means from appositely prepared CuInGaSe<sub>2</sub> absorbers on flexible substrates by a low-cost and industrially benign pulse electrodeposition technique**

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**Study of Cu<sub>2</sub>CdGeSe<sub>4</sub> monograin powders synthesized by molten salt method for photovoltaic applications**

**Kauk-Kuusik, Marit; Li, Xiaofeng; Pilvet, Maris; Timmo, Kristi; Grossberg, Maarja; Raadik, Taavi; Danilson, Mati; Mikli, Valdek; Altosaar, Mare; Krustok, Jüri; Raudoja, Jaan** Thin solid films 2018 / p. 15-19 <https://doi.org/10.1016/j.tsf.2018.09.025> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

**Study of Cu<sub>2</sub>ZnSnSe<sub>4</sub> monograin formation in molten KI starting from binary chalcogenides**

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**The effect of S/Se ratio on the properties of Cu<sub>2</sub>CdGe(SxSe1-x)<sub>4</sub> microcrystalline powders for photovoltaic applications**

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