

#### **Antimicrobial particles based on Cu<sub>2</sub>ZnSnS<sub>4</sub> monograins**

Žalneravicius, Rokas; Pakštas, Vidas; Grinciene, Giedre; Klimas, Vaclovas; Paškevičius, Algimantas; **Timmo, Kristi; Kauk-Kuusik, Marit**; Franckevicius, Marius; Niaura, Gediminas; Talaikis, Martynas; Jagminas, Arunas; Ramanavicius, Arunas Colloids and Surfaces B: Biointerfaces 2023 / art. 113275 <https://doi.org/10.1016/j.colsurfb.2023.113275> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

#### **Bandgap fluctuations, hot carriers, and band-to-acceptor recombination in Cu<sub>2</sub>ZnSn(S,Se)<sub>4</sub> microcrystals**

**Krustok, Jüri; Kaupmees, Reelika; Abbasi, Nafiseh; Muska, Katri; Mengü, Idil; Timmo, Kristi** Physica status solidi - rapid research letters 2023 / art. 2300077, 5 p. : ill <https://doi.org/10.1002/pssr.202300077> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

#### **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](#)

#### **Characterization of Cu<sub>2</sub>ZnSnSe<sub>4</sub> monograin layer solar cells**

**Altosaar, Mare; Timmo, Kristi; Danilson, Mati; Raudoja, Jaan; Mellikov, Enn** Proceedings of the International Conference on Solar Cells : IC-SOLACE 2008 : January 21-23, 2008, Cochin, India 2008 / p. 103-105 : ill

#### **Characterization of tetrahedrite Cu<sub>10</sub>Cd<sub>2</sub>Sb<sub>4</sub>S<sub>13</sub> monograin materials grown in molten CdI<sub>2</sub> and LiI**

**Ghisani, Fairouz; Timmo, Kristi; Altosaar, Mare; Mikli, Valdek; Pilvet, Maris; Kaupmees, Reelika; Krustok, Jüri; Grossberg, Maarja; Kauk-Kuusik, Marit** Thin solid films 2021 / art. 138980 <https://doi.org/10.1016/j.tsf.2021.138980> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

#### **Characterization of tetrahedrite Cu<sub>10</sub>Cd<sub>2</sub>Sb<sub>4</sub>S<sub>13</sub> monograin materials grown in molten CdI<sub>2</sub> and LiI : [conference paper]**

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#### **Chemical etching of Cu<sub>2</sub>ZnSn(S,Se)<sub>4</sub> monograin powder**

**Timmo, Kristi; Altosaar, Mare; Raudoja, Jaan; Grossberg, Maarja; Danilson, Mati; Volobujeva, Olga; Mellikov, Enn** 35th IEEE Photovoltaic Specialists Conference : Honolulu, HI, June 20-25, 2010 : conference proceedings 2010 / p. 1982-1985 : ill

#### **Chemical etching of tetrahedrite Cu<sub>10</sub>Cd<sub>2</sub>Sb<sub>4</sub>S<sub>13</sub> monograin powder materials for solar cell applications**

**Ghisani, Fairouz; Timmo, Kristi; Altosaar, Mare; Mikli, Valdek; Danilson, Mati; Grossberg, Maarja; Kauk-Kuusik, Marit** Materials science in semiconductor processing 2022 / art. 106291 <https://doi.org/10.1016/j.mssp.2021.106291> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

#### **Chemical treatment of tetrahedrite Cu<sub>10</sub>Cd<sub>2</sub>Sb<sub>4</sub>S<sub>13</sub> monograin powder**

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**Timmo, Kristi; Kauk-Kuusik, Marit; Pilvet, Maris; Mikli, Valdek; Kärber, Erki; Raadik, Taavi; Leinemann, Inga; Altosaar, Mare; Raudoja, Jaan** Physica status solidi (c) 2016 / p. 8-12 : ill <https://doi.org/10.1002/pssc.201510082> [Journal metrics at Scopus](#) [Article at Scopus](#) [Article at WOS](#)

#### **Compositionally tunable structure and optical properties of Cu<sub>1.85</sub>(Cd<sub>x</sub>Zn<sub>1-x</sub>)<sub>1.1</sub>SnS<sub>4.1</sub> (0 ≤ x ≤ 1) monograin powders**

**Pilvet, Maris; Kauk-Kuusik, Marit; Altosaar, Mare; Grossberg, Maarja; Danilson, Mati; Timmo, Kristi; Mere, Arvo; Mikli, Valdek** Thin solid films 2015 / p. 180-183 : ill <http://dx.doi.org/10.1016/j.tsf.2014.10.091>

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#### **Cu<sub>2</sub>Zn<sub>1-x</sub>Cd<sub>x</sub>Sn(Se<sub>1-y</sub>S<sub>y</sub>)<sub>4</sub> solid solutions as absorber materials for solar cells**

**Altosaar, Mare; Raudoja, Jaan; Timmo, Kristi; Danilson, Mati; Grossberg, Maarja; Krustok, Jüri; Mellikov, Enn** Physica status solidi (a) : applications and materials science 2008 / 1, p. 167-170 : ill <https://colab.ws/articles/10.1002%2Fpssa.200776839>

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### **Defect studies in Cu<sub>2</sub>ZnSnSe<sub>4</sub> and Cu<sub>2</sub>ZnSn(S<sub>0.75</sub>S<sub>0.25</sub>)<sub>4</sub> by admittance and photoluminescence spectroscopy**

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

**Li, Xiaofeng; Pilvet, Maris; Timmo, Kristi; Grossberg, Maarja; Danilson, Mati; Mikli, Valdek; Kauk-Kuusik, Marit** Thin solid films 2020 / art. 137822, 7 p. : ill <https://doi.org/10.1016/j.tsf.2020.137822> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

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**Influence of alkali iodide fluxes on Cu<sub>2</sub>ZnSnS<sub>4</sub> monograin powder properties and performance of solar cells**  
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**Nano-scale sulfurization of the Cu<sub>2</sub>ZnSnSe<sub>4</sub> crystal surface for photovoltaic applications**  
Kauk-Kuusik, Marit; Li, Xiaofeng; Pilvet, Maris; Timmo, Kristi; Mikli, Valdek; Kaupmees, Reelika; Danilson, Mati; Grossberg, Maarja Journal of materials chemistry A 2019 / p. 24884-24890 : ill <https://doi.org/10.1039/C9TA08020A> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

**Novel Cu<sub>2</sub>CdSnS<sub>4</sub> and Cu<sub>2</sub>ZnGeSe<sub>4</sub> absorber materials for monograin layer solar cell application**  
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**Observation of band gap fluctuations and carrier localization in Cu<sub>2</sub>CdGeSe<sub>4</sub>**  
Krustok, Jüri; Raadik, Taavi; Kaupmees, Reelika; Grossberg, Maarja; Kauk-Kuusik, Marit; Timmo, Kristi; Mere, Arvo Journal of physics D : applied physics 2019 / art. 285102 , 7 p. : ill <https://doi.org/10.1088/1361-6463/ab1afd> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

**Optical and structural properties of orthorhombic and tetragonal polymorphs of Cu<sub>2</sub>CdGeSe<sub>4</sub>**  
Grossberg, Maarja; Raadik, Taavi; Krustok, Jüri; Kauk-Kuusik, Marit; Timmo, Kristi; Kaupmees, Reelika; Mikli, Valdek; Mere, Arvo Thin solid films 2018 / p. 44-47 <https://doi.org/10.1016/j.tsf.2018.09.031> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

**The optoelectronic properties of Sb<sub>2</sub>(Se<sub>1-x</sub>,Sx)<sub>3</sub> (x= 0 - 1) solid solutions**  
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**Photoelectrochemical properties and band positions of Cd-substituted tetrahedrite Cu<sub>10</sub>Cd<sub>2</sub>Sb<sub>4</sub>S<sub>13</sub> monograin materials grown in molten CdI<sub>2</sub> and Lil**

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**Reduced recombination through the CZTS/CdS interface engineering in monograin layer solar cells**

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