

Advances in the one-step synthesis of 2D and 3D sulfide materials grown by pulsed laser deposition assisted by a sulfur thermal cracker

Esterlich, Joan Ramish; Affannoukoue, Kevin; **Kaupmees, Reelika**; Miakota, Denys; Engberg, Sara; **Grossberg-Kuusk, Maarja**; Schou, Jorgen; Canulescu, Stela Applied physics. A, Materials science & processing 2023 / art. 59, 8 p. : ill <https://doi.org/10.1007/s00339-022-06319-w> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Bandgap fluctuations, hot carriers, and band-to-acceptor recombination in Cu₂ZnSn(S,Se)₄ 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 Cu₁₀Cd₂Sb₄S₁₃ 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 tetrahedrite Cu₁₀Cd₂Sb₄S₁₃ monograin materials grown in molten CdI₂ 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](#)

Chemical vapour deposition of WS₂ monolayers [Online resource]

Kaupmees, Reelika; **Grossberg, Maarja**; **Krustok, Jüri** Tartu Ülikooli ASTRA projekt PER ASPERA : Funktsionaalsed materjalid ja tehnoloogiad : [4.-5. veebr. 2019, Tartu : teesid] 2019 / 1 p <http://fmtdk.ut.ee/teesid-2019/>

Cu(In,Ga)Se₂ monograin powders with different Ga content for solar cells

Timmo, Kristi; **Kauk-Kuusik, Marit**; **Pilvet, Maris**; **Altosaar, Mare**; **Grossberg, Maarja**; **Danilson, Mati**; **Kaupmees, Reelika**; **Mikli, Valdek**; **Raudoja, Jaan**; **Varema, Tiit** Solar energy 2018 / p. 648–655 : ill <https://doi.org/10.1016/j.solener.2018.10.078> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Detailed photoluminescence study of Cu₂Ge(SSe)₃ microcrystals

Kuusik, Jüri; **Kaupmees, Reelika**; **Li, Xiaofeng**; **Kauk-Kuusik, Marit**; **Grossberg, Maarja** AIP advances 2021 / art. 085105 <https://doi.org/10.1063/5.0053928> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Development of band gap tuned CU₂ZN(SN₁–XGEX)₄ monograin powders

Mengü, Idil; **Grossberg-Kuusk, Maarja**; **Muska, Katri**; **Pilvet, Maris**; **Mikli, Valdek**; **Kaupmees, Reelika**; **Krustok, Jüri**; **Kauk-Kuusik, Marit** Graduate School of Functional Materials and Technology (GSFMT) Scientific Conference : abstracts 2022 / 39 l. [Graduate School of Functional Materials and Technology \(GSFMT\) Scientific Conference 2022](#)

Efficient defect-driven cation exchange beyond the nanoscale semiconductors toward antibacterial functionalization

Polivtseva, Svetlana; **Volobujeva, Olga**; **Kuznietsov, Ivan**; **Kaupmees, Reelika**; **Danilson, Mati**; **Krustok, Jüri**; **Molaiyan, Palanivel**; **Hu, Tao**; **Lassi, Ulla**; **Klopov, Mihhail**; **van Gog, Heleen**; **van Huis, Marijn A.**; **Kaur, Harleen**; **Ivask, Angela**; **Rosenberg, Merilin**; **Gathergood, Nicholas**; **Ni, Chaoying**; **Grossberg-Kuusk, Maarja** ACS applied materials & interfaces 2024 / p. 62871-62882 <https://doi.org/10.1021/acsami.4c11425> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Growth and optical properties of two-dimensional transition metal dichalcogenides = Kahedimensionaalsete siirdemetallide dikalkogeniidide kasvatus ning optiliste omaduste uurimine

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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](#)

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](#)

In Ambient Air Processed Cu₂ZnSnS₄ Absorber Layers from DMSO-Based Precursors: Enhanced Efficiency via Device Post-annealing

Nasyori, Achmad; **Pilvet, Maris**; **Saar, Annabel**; **Krustok, Jüri**; **Danilson, Mati**; **Kaupmees, Reelika**; **Mikli, Valdek**; **Gong, Yuancai**; **Grossberg-Kuusk, Maarja**; **Kauk-Kuusik, Marit** Journal of Materials Chemistry A 2025 <https://doi.org/10.1039/D5TA04554A>

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Nano-scale sulfurization of the Cu₂ZnSnSe₄ crystal surface for photovoltaic applications
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Photoluminescence study of B-trion in CVD grown MoS₂ monolayers [Online resource]
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Postdeposition processing of SnS thin films and solar cells : prospective strategy to obtain large, sintered, and doped SnS grains by recrystallization in the presence of a metal halide flux
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Radiative recombination pathways in ordered and disordered CZTSe microcrystals
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Recent advances of carbon nanotubes synthesis by the electric arc technique using atomized platinum-group metal catalysts
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Solution-mediated inversion of SnSe to Sb₂Se₃ thin-films

Polivtseva, Svetlana; Kois, Julia; **Kruzhilina, Tatiana**; **Kaupmees, Reelika**; **Klopov, Mihhail**; Molaiyan, Palanivel; van Gog, Heleen; van Huis, Marijn A.; **Volobujeva, Olga** Nanomaterials 2022 / art. 2898 <https://doi.org/10.3390/nano12172898> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Study of the structure and optoelectronic properties of Cu₂Ge(SexS_{1-x})₃ microcrystalline powders

Li, Xiaofeng; **Timmo, Kristi**; **Grossberg, Maarja**; **Pilvet, Maris**; **Kaupmees, Reelika**; **Krustok, Jüri**; **Muska, Katri**; **Mikli, Valdek**; **Kauk-Kuusik, Marit** Thin solid films 2022 / art. 139053, 6 p. : ill <https://doi.org/10.1016/j.tsf.2021.139053> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

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The effect of elevated temperatures on excitonic emission and degradation processes of WS₂ monolayers

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