

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 <https://doi.org/10.1007/s00339-022-06319-w>

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 the edge emission of highly conductive CuGaTe₂

Krustok, Jüri; Grossberg, Maarja; Jagomägi, Andri; Danilson, Mati; Raudoja, Jaan Thin solid films 2007 / 15, p. 6192-6195 <https://www.sciencedirect.com/science/article/abs/pii/S0040609006016117>

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>

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](#)

Bulk and surface characterisation techniques of solar absorbers : general discussion

Andreasen, Jens Wenzel; Breternitz, Joachim; Bär, Marcus; Dale, Phillip J.; Dimitrievska, Mirjana; Fermin, David J.; Fleck, Nicole; Hages, Charles J.; Havryliuk, Yevhenii; Hawkins, Cara; Mandati, Sreekanth Faraday Discussions 2022 / p. 180-201 <https://doi.org/10.1039/D2FD90056D>

Characterization of FeS₂ pyrite microcrystals synthesized in different flux media

Kristmann, Katriin; Raadik, Taavi; Altosaar, Mare; Danilson, Mati; Krustok, Jüri; Paaver, Peeter; Butenko, Yuriy Materials advances 2023 / 11 p <https://doi.org/10.1039/D3MA00697B>

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](#)

Compositional dependence of Raman scattering and photoluminescence emission in Cu-Ga-Se films grown by MOCVD

Grossberg, Maarja; Krustok, Jüri; Siebentritt, Susanne; Albert, Jürgen Physica B : condensed matter 2009 / 14/15, p. 1984-1988 : ill

Deep and edge photoluminescence emission of CuInTe₂

Jagomägi, Andri; Krustok, Jüri; Raudoja, Jaan; Grossberg, Maarja; Danilson, Mati Physica status solidi (b) 2003 / 2, p. R3-R5

Deep defect related photoluminescence in heavily doped CuGaTe₂

Jagomägi, Andri; Krustok, Jüri; Grossberg, Maarja; Danilson, Mati; Raudoja, Jaan Physica status solidi (a) 2006 / 5, p. 949-955 : ill <http://deepzone3.ttu.ee/~juri.krustok/PDF-s/Deep%20defect%20related%20photoluminescence%20in%20heavily%20doped.pdf>

Deep-level photoluminescence of doped CdTe in 0,8 eV region

Krustok, Jüri; Löö, A.; Piibe, Toomas Journal of physics and chemistry of solids 1991 / 8, p. 1037-1038

Defect studies in Cu₂ZnSnSe₄ and Cu₂ZnSn(Se_{0.75}S_{0.25})₄ by admittance and photoluminescence spectroscopy

Kask, Erkki; Grossberg, Maarja; Josepson, Raavo; Salu, Pille; Timmo, Kristi; Krustok, Jüri Materials science in semiconductor processing 2013 / p. 992-996 : ill

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 Bi₂S₃ thin film solar cells by close-spaced sublimation and analysis of absorber bulk defects via in-depth photoluminescence analysis

Koltsov, Mykhailo; Gopi, Sajeesh Vadakkedath; Raadik, Taavi; Krustok, Jüri; Josepson, Raavo; Gržibovskis, Raitis; Vembris,

Aivars; **Spalatu, Nicolae** Solar energy materials and solar cells 2023 / art. 112292 <https://doi.org/10.1016/j.solmat.2023.112292>

Development of Bi₂S₃ thin-film solar cells by close-spaced sublimation

Koltsov, Mykhailo; Krautmann, Robert; Gopi, Sajeesh Vadakkedath; Hiie, Jaan; Krunks, Malle; Oja Acik, Ilona; Spalatu, Nicolae Graduate School of Functional Materials and Technology (GSFMT) Scientific Conference : abstracts 2022 / 25 I. [Graduate School of Functional Materials and Technology \(GSFMT\) Scientific Conference 2022](#)

Does the low-temperature Arrhenius plot of the photoluminescence intensity in CdTe point towards an erroneous activation energy?

Krustok, Jüri; Collan, Heikki; Hjelt, Kari Journal of applied physics 1997 / 3, p. 1442-1445: ill

Effect of germanium incorporation on the properties of kesterite Cu₂ZnSn(S,Se)₄ monograins

Oueslati, Souhaib; Grossberg, Maarja; **Kauk-Kuusik, Marit**; Mikli, Valdek; Ernits, Kaia; Meissner, Dieter; Krustok, Jüri Thin solid films 2019 / p. 315–320 : ill <https://doi.org/10.1016/j.tsf.2018.11.020> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Effects of irradiation of ZnO/CdS/Cu₂ZnSnSe₄/Mo/glass solar cells by 10 MeV electrons on photoluminescence spectra

Sulimov, M. A.; Sarychev, M.N.; Yakushev, Michael V.; **Krustok, Jüri** Materials science in semiconductor processing 2021 / art. 105301, 5 p. : ill <https://doi.org/10.1016/j.mssp.2020.105301> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Effects of selenisation temperature on photoluminescence and photoluminescence excitation spectra of ZnO/CdS/Cu₂ZnSnSe₄/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](#)

Electronic and structural characterisation of Cu₃BiS₃ thin films for the absorber layer of sustainable photovoltaics

Yakushev, M.V.; Maiello, P.; **Raadik, Taavi**; **Krustok, Jüri** Thin solid films 2014 / p. 195-199 : ill

Electronic excitations and self-trapping of electrons and holes in CaSO₄

Kudrjavitseva, Irina; **Klopov, Mihhail**; Luštsik, Aleksandr Physica scripta 2014 / p. 1-6 : ill

Electron-phonon interaction in the deep centre photoluminescence of CdS:Ag:Cl

Krustok, Jüri; **Mädasson, Jaan** Journal of physics and chemistry of solids 1994 / 9, p. 831-833

Enhancement of photoluminescence of GaAsBi quantum wells by parabolic design of AlGaAs barriers

Pukiene, Simona; Karaliunas, Mindaugas; Jasinskas, A.; **Udal, Andres** Nanotechnology 2019 / art. 455001, 11 p. : ill <https://doi.org/10.1088/1361-6528/ab36f3> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Erratum: Origin of the deep center photoluminescence in CuGaSe₂ and CuInS₂ crystals (J.Appl. Phys. 86, 364(1999))

Krustok, Jüri; Schön, J.H.; Collan, Heikki; Yakushev, M.; **Mädasson, Jaan**; Bucher, E. Journal of applied physics 2001 / 12, p. 8357-8358

Excitonic emission in heavily Ga-doped zinc oxide films grown on GaN

Shteplyuk, I.; Khranovskyy, D.; Gogova, D.; **Danilson, Mati**; **Krunks, Malle** Journal of luminescence 2020 / art. 117265, 10 p. : ill <https://doi.org/10.1016/j.jlumin.2020.117265> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

High precision parabolic quantum wells grown using pulsed analog alloy grading technique: Photoluminescence probing and fractional-dimensional space approach

Karaliunas, Mindaugas; Dudutiene, Evelina; Čerškus, Aurimas; Pagalys, Justas; Pūkiene, Simona; Udal, Andres; Butkute, Renata; Valušis, Gintaras Journal of luminescence 2021 / art. 118321, 9 p <https://doi.org/10.1016/j.jlumin.2021.118321> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Highlight of photocurrent generation in garbon-based nanohybrids combined with HfO₂ nanoparticles

Rauwel, Protima; Galeckas, Augustinas; Ducroquet, Frederiquet; **Rauwel, Erwan** 5th International Conference on Competitive Materials and Technology Processes : Miskolc-Lillafüred, Hungary, October 8-12, 2018 : book of abstracts 2018 / p. 166 https://www.ic-cmtp5.eu/doc/book_of_abstract_iccmtp5.pdf

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

Influence of the interface on the photoluminescence properties in ZnO carbon-based nanohybrids

Rauwel, Erwan; Galeckas, Augustinas; Rosario Soares, M.; **Rauwel, Protima** Journal of physical chemistry C 2017 / p. 14879-14887 : ill <http://dx.doi.org/10.1021/acs.jpcc.7b03070>

Investigation of potential and compositional fluctuations in CuGa₃Se₅ crystals using photoluminescence spectroscopy

Grossberg, Maarja; **Krustok, Jüri**; **Jagomägi, Andri**; Leon, M.; Arushanov, E.; Nateprov, A.; Bodnar, I. Thin solid films 2007 / 15, p. 6204-6207 : ill <https://www.sciencedirect.com/science/article/pii/S0040609006016221>

Investigation of the silicon/polypyrrole interface by pulsed photoluminescence and IR spectroscopic ellipsometry during electrochemical deposition

Zhang, Xin; **Söritski, Vitali**; Sun, Guoguang; Hinrichs, Karsten; Rappich, Jörg Polymers for advanced technologies 2013 / p. 171

Investigation of the structural, optical and electrical properties of Cu₃BiS₃ semiconducting thin films

Yakushev, M. V.; Maiello, P.; **Raadik, Taavi**; **Krustok, Jüri** Energy procedia 2014 / p. 166-172 : ill

Investigations on new carbon-based nanohybrids combining carbon nanotubes and metal oxide nanoparticles

Rauwel, Protima; Galeckas, Augustinas; **Salumaa, Martin**; Ducroquet, Frederiquet; **Rauwel, Erwan** 4th International Conference on Competitive Materials and Technology Processes : Miskolc-Lillafüred, Hungary, October 3-7, 2016 : book of abstracts 2016 / p. 250 http://www.ic-cmtp4.eu/doc/book_of_abstract_iccmtp4.pdf

Investigations on new carbon-based nanohybrids combining carbon nanotubes, HfO₂ and ZnO nanoparticles

Rauwel, Protima; Galeckas, Augustinas; **Salumaa, Martin**; **Aasna, Andres**; Ducroquet, Frederiquet; **Rauwel, Erwan** IOP conference series : materials science and engineering 2017 / art. 012064, p. 1-5 : ill <http://dx.doi.org/10.1088/1757-899X/175/1/012064>

Local strain-induced band gap fluctuations and exciton localization in aged WS₂ monolayers

Krustok, Jüri; **Kaupmees, Reelika**; Jaaniso, Raivo; Kiisk, Valter; Sildos, Ilmo; Li, B.; Gong, Y. AIP advances 2017 / art. 065005, 12 p. <https://doi.org/10.1063/1.4985299>

Low processing temperatures explored in Sb₂S₃ solar cells by close-spaced sublimation and analysis of bulk and interface related defects

Krautmann, Robert; **Spalatu, Nicolae**; **Josepson, Raavo**; Nedzinskas, Ramunas; Kondrotas, Rokas; Gržibovskis, R.; Vembris, Aivars; **Krunks, Malle**; **Oja Acik, Ilona** Solar energy materials and solar cells 2023 / art. 112139, 9 p. : ill <https://doi.org/10.1016/j.solmat.2022.112139>

Low temperature time resolved photoluminescence in ordered and disordered Cu₂ZnSnS₄ single crystals

Raadik, Taavi; **Krustok, Jüri**; **Kauk-Kuusik, Marit**; **Timmo, Kristi**; **Grossberg, Maarja**; Ernits, Kaia; Bleuse, J. Physica B : condensed matter 2017 / p. 47-50 : ill <https://doi.org/10.1016/j.physb.2016.12.011>

Metal oxide nanoparticles embedded in rare-earth matrix for low temperature thermal imaging applications

Rauwel, Erwan; Galeckas, Augustinas; **Rauwel, Protima**; Hansen, P.-A.; Wragg, David; Nilsen, Ola; Fjellvag, H. Materials research express 2016 / p. 1-11 : ill <http://dx.doi.org/10.1088/2053-1591/3/5/055010>

Microphotoluminescence study of Cu₂ZnSnS₄ polycrystals

Grossberg, Maarja; **Salu, Pille**; **Raudoja, Jaan**; **Krustok, Jüri** Journal of photonics for energy 2013 / p. 030599-1 - 030599-6 : ill

Modification of the optoelectronic properties of Cu₂CdSnS₄ through low-temperature annealing

Pilvet, Maris; **Kauk-Kuusik, Marit**; **Grossberg, Maarja**; **Raadik, Taavi**; **Mikli, Valdek**; **Traksmaa, Rainer**; **Raudoja, Jaan**; **Timmo, Kristi**; **Krustok, Jüri** Journal of alloys and compounds 2017 / p. 820-825 : ill <https://doi.org/10.1016/j.jallcom.2017.06.307>

Novel Cu₂CdSnS₄ and Cu₂ZnGeSe₄ absorber materials for monograin layer solar cell application

Timmo, Kristi; **Kauk-Kuusik, Marit**; **Altosaar, Mare**; **Raudoja, Jaan**; **Raadik, Taavi**; **Grossberg, Maarja**; **Varema, Tiit**; **Pilvet, Maris**; **Leinemann, Inga**; **Volobujeva, Olga**; **Mellikov, Enn** EU PVSEC proceedings 2013 / p. 2385-2388 : ill

Observation of band gap fluctuations and carrier localization in Cu₂CdGeSe₄

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](#)

Observation of photoluminescence edge emission in CuSbSe₂ absorber material for photovoltaic applications

Penežko, Aleksei; **Kauk-Kuusik, Marit**; **Volobujeva, Olga**; **Traksmaa, Rainer**; **Grossberg, Maarja** Applied physics letters 2019 / art. 092101, 4 p. : ill <https://doi.org/10.1063/1.5114893> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

1.4 eV photoluminescence in chlorine-doped polycrystalline CdTe

Hjelt, Kari; Collan, Heikki; **Krustok, Jüri; Mädasson, Jaan** Annual report 1994 / Optoelectronics Laboratory, Helsinki University of Technology 1995 / p. 47-48

1.4 eV photoluminescence in chlorine-doped polycrystalline CdTe with a high density of defects

Krustok, Jüri; Mädasson, Jaan; Collan, Heikki; Hjelt, Kari Journal of materials science 1997 / p. 1545-1550: ill
<https://link.springer.com/article/10.1023/A:1018526622440>

One step synthesis of pure cubic and monoclinic HfO₂ nanoparticles : effects of temperature and ambient on the photoluminescent properties

Rauwel, Protima; Galeckas, Augustinas; **Rauwel, Erwan** ECS transactions 2015 / p. 19-28

Optical and structural properties of orthorhombic and tetragonal polymorphs of Cu₂CdGeSe₄

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](#)

Optical dynamics of copper-doped cadmium sulfide (CdS) and zinc sulfide (ZnS) quantum-dots core/shell nanocrystals

Rashid, Muhammad Haroon; **Koel, Ants; Rang, Toomas;** Nasir, Nadeem; Sabir, Nadeem; Ameen, Faheem; Rasheed, Abher Nanomaterials 2022 / art. 2277 <https://doi.org/10.3390/nano12132277> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Optical properties of GaTe-ZnTe nanolamellae composite

Spalatu, Nicolae; Evtodiev, Igor; Caraman, Iuliana Energy procedia 2015 / p. 176-182 : ill <http://dx.doi.org/10.1016/j.egypro.2015.12.311>

Optical properties of multinary semiconductor compounds for photovoltaic applications = Päikesepatareides kasutatavate mitmikpooljuhtühendite optilised omadused

Grossberg, Maarja 2010 <https://digi.lib.ttu.ee/i/?512> https://www.ester.ee/record=b2637396*est

Optical spectroscopy studies of Cu₂ZnSnSe₄ thin films

Yakushev, M. V.; Forbes, I.; Mudryi, A. V.; **Grossberg, Maarja; Krustok, Jüri; Beattie, N. S.;** Moynihan, M.; Rockett, A.; Martin, R. W. Thin solid films 2015 / p. 154-157 : ill <http://dx.doi.org/10.1016/j.tsf.2014.09.010>

Optical study of local strain related disordering in CVD-grown MoSe₂ monolayers

Krustok, Jüri; Raadik, Taavi; Jaaniso, Raivo; Kiisk, Valter Applied physics letters 2016 / p. 253106-1 - 253106-5 : ill
<http://dx.doi.org/10.1063/1.4972782>

The optoelectronic properties of Sb₂(Se_{1-x}, S_x)₃ (x= 0 - 1) solid solutions

Ender, Mehmet; Volobujeva, Olga; Timmo, Kristi; Grossberg, Maarja GSFMT Scientific Conference 2021 : Tartu, June 14-15, 2021 : abstracts 2021 / P 4 https://fmdk.ut.ee/wp-content/uploads/2021/06/GSFMT_abstractbook_2021.pdf

Origin of photoluminescence from antimony selenide

Grossberg, Maarja; Volobujeva, Olga; Penežko, Aleksei; Kaupmees, Reelika; Raadik, Taavi; Krustok, Jüri Journal of alloys and compounds 2020 / art. 152716, 5 p. : ill <https://doi.org/10.1016/j.jallcom.2019.152716> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Origin of the deep center photoluminescence in CuGaSe₂ and CuInS₂ crystals

Krustok, Jüri; Schön, J.H.; Collan, Heikki; Yakushev, M.; **Mädasson, Jaan;** Bucher, E. Journal of applied physics 1999 / 1, p. 364-369: ill

Photoelectric and photoluminescence properties of CdTe-GaTe composite

Caraman, Iuliana; **Spalatu, Nicolae;** Evtodiev, Igor; Untila, Dumitru; Leontie, Liviu; Caraman, Mihail Physica status solidi (b) 2016 / p. 2515-2522 : ill <http://dx.doi.org/10.1002/pssb.201600485>

Photoluminescence and AFM study of WS₂ monolayers

Kaupmees, Reelika; Madauß, Lukas; Pollmann, Erik; **Grossberg, Maarja; Krustok, Jüri** GSFMT Scientific Conference 2020 : Tallinn, February 4-5, 2020 : abstracts 2020 / p. 41 <http://fmdk.ut.ee/wp-content/uploads/2020/01/GSFMT2020.pdf>

Photoluminescence and photoluminescence excitation study of CuGaTe₂

Hjelt, Kari; **Krustok, Jüri;** Yakushev, M.; Collan, Heikki; Hill, A.E.; Tomlinson, R.D. Book of abstracts of the 11th International Conference on Ternary & Multinary Compounds, 8-12 September 1997, Salford, England 1997 / p. 1.106

Photoluminescence and Raman spectra of the ordered vacancy compound CuGa₅Se₈

Grossberg, Maarja; Krustok, Jüri; Bodnar, Ivan; Siebentritt, Susanne; Albert, Jürgen Physica B 2008 / 1, p. 184-189 : ill

Photoluminescence and Raman spectroscopy of polycrystalline AgInTe₂

Jagomägi, Andri; Krustok, Jüri; Raudoja, Jaan; Grossberg, Maarja; Oja, Ilona; Krunks, Malle; Danilson, Mati Thin solid films 2005 / p. 246-249 : ill

Photoluminescence and Raman spectroscopy of polycrystalline AgInTe₂

Jagomägi, Andri; Krustok, Jüri; Raudoja, Jaan; Grossberg, Maarja; Oja, Ilona; Krunks, Malle; Danilson, Mati Thin solid films 2005 / p. 246-249 : ill

Photoluminescence and Raman study of Cu₂ZnSn(SexS_{1-x})₄ monograins for photovoltaic applications

Grossberg, Maarja; Krustok, Jüri; Raudoja, Jaan; Timmo, Kristi; Altosaar, Mare; Raadik, Taavi Thin solid films 2011 / p. 7403-7406 : ill

Photoluminescence and tetragonal distortion in CuInSe₂

Krustok, Jüri; Raudoja, Jaan; Collan, Heikki Abstracts E-MRS-IUMRS 2000 / p. N-22

Photoluminescence and tetragonal distortion in CuInSe₂

Yakushev, M. A.; Martin, R. W.; **Krustok, Jüri** Abstracts E-MRS-IUMRS 2000 / p. N-23

Photoluminescence and the tetragonal distortion in CuInS₂

Krustok, Jüri; Raudoja, Jaan; Collan, Heikki Thin solid films 2001 / p. 195-197

Photoluminescence from deep acceptor - deep donor complexes in CdTe

Krustok, Jüri; Collan, Heikki; Hjelt, Kari; **Mädasson, Jaan; Valdna, Vello** Journal of luminescence 1997 / p. 103-105: ill

Photoluminescence from deep acceptor - deep donor complexes in CdTe

Krustok, Jüri; Collan, Heikki; Hjelt, Kari; **Mädasson, Jaan; Valdna, Vello** ICL'96, Prague : International Conference on Luminescence and Optical Spectroscopy of Condensed Matter, Prague, Czech Republic, 18-23 August 1996 1996 / p. 1-17

Photoluminescence of AgInSe₂

Hjelt, Kari; **Krustok, Jüri;** Yakushev, M.; Collan, Heikki; Hill, A.E.; Tomlinson, R.D. Book of abstracts of the 11th International Conference on Ternary & Multinary Compounds, 8-12 September 1997, Salford, England 1997 / p. 1.107

Photoluminescence of chalcopyrite tellurides = Kalkopüriitsete telluriidide fotoluminestsents

Jagomägi, Andri 2006 https://www.ester.ee/record=b2209329*est

Photoluminescence of Se-annealed CuInSe₂ powders

Krustok, Jüri; Mädasson, Jaan; Hjelt, Kari Journal of physics and chemistry of solids 1993

Photoluminescence of Se-annealed CuInSe₂ powders

Krustok, Jüri; Mädasson, Jaan; Hjelt, Kari Journal of materials science letters 1994 / 13, p. 1570-1572

Photoluminescence of Se-annealed CuInSe₂ powders

Hjelt, Kari; Collan, Heikki; **Krustok, Jüri; Mädasson, Jaan** Annual report of Optoelectronic Laboratory 1994 / p. 33-35

Photoluminescence of spray pyrolysis deposited ZnO nanorods

Kärber, Erki; Raadik, Taavi; Dedova, Tatjana; Krustok, Jüri; Mere, Arvo; Mikli, Valdek; Krunks, Malle Nanoscale research letters 2011 / [7] p.: ill

Photoluminescence of Zn(SeTe) annealed phosphors

Valdna, Vello; Mellikov, Enn; Mere, Arvo Physica scripta 1997 / p. 312-314

Photoluminescence properties of Ge-implanted CuGaSe₂ crystals

Krustok, Jüri; Raudoja, Jaan; Schön, J.H. Physica status solidi (a) 2000 / p. 805-809 : ill

Photoluminescence properties of polycrystalline AgGaTe₂

Krustok, Jüri; Jagomägi, Andri; Grossberg, Maarja; Raudoja, Jaan; Danilson, Mati Solar energy materials and solar cells 2006 / 13, p. 1973-1982 : ill https://www.researchgate.net/publication/240431559_Photoluminescence_properties_of_polycrystalline_AgGaTe_2

Photoluminescence properties of stoichiometric CuInSe₂ crystals

Krustok, Jüri; Jagomägi, Andri; Raudoja, Jaan; Altosaar, Mare Solar energy materials and solar cells 2003 / p. 401-408 : ill

Photoluminescence properties of Z-bands in CdTe

Krustok, Jüri; Mädasson, Jaan; Hiie, Jaan Physica status solidi (a) 1998 / p. 517-525: ill

Photoluminescence study of B-trion in CVD grown MoS₂ monolayers [Online resource]

Kaupmees, Reelika; Krustok, Jüri Tartu Ülikooli ASTRA projekt PER ASPERA : Funktsionaalsed materjalid ja tehnoloogiad : [7-8 märtsil 2018, Tallinn : teesid] GSFMT Scientific Conference 2018 : Tallinn, March 7-8, 2018 : abstracts 2018 / 1 p. : ill
<http://fmttk.ut.ee/teesid-2018/>

Photoluminescence study of B-trions in MoS₂ monolayers with high density of defects

Kaupmees, Reelika; Komsa, Hannu-Pekka; Krustok, Jüri Physica status solidi (b) 2019 / art. 1800384, 5 p. : ill
<https://doi.org/10.1002/pssb.201800384> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Photoluminescence study of deep donor- deep acceptor pairs in Cu₂ZnSnS₄

Krustok, Jüri; Raadik, Taavi; Grossberg, Maarja; Kauk-Kuusik, Marit; Trifiletti, V.; Binetti, S. Materials science in semiconductor processing 2018 / p. 52-55 : ill <https://doi.org/10.1016/j.msssp.2018.02.025> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Photoluminescence study of deep levels in CuGaTe₂ crystals

Krustok, Jüri; Raudoja, Jaan; Yakushev, M.; Pilkington, R.D.; Collan, Heikki Journal of applied physics 1999 / 9, p. 5305-5307: ill

Photoluminescence study of defect clusters in Cu₂ZnSnS₄ polycrystals

Grossberg, Maarja; Raadik, Taavi; Raudoja, Jaan; Krustok, Jüri Current applied physics 2014 / p. 447-450 : ill

Photoluminescence study of disordering in the cation sublattice of Cu₂ZnSnS₄

Grossberg, Maarja; Krustok, Jüri; Raadik, Taavi; Kauk-Kuusik, Marit; Raudoja, Jaan Current applied physics 2014 / p. 1424-1427 : ill

Photoluminescence study of some solar cell materials

Hjelt, Kari; Collan, Heikki; **Krustok, Jüri; Mädasson, Jaan** XXIX Annual Conference of the Finnish Physical Society : proceedings 1995 / p. 7.33

Photoluminescence study of the 1.1 eV deep emission band in p-type CdTe

Hjelt, Kari; Collan, Heikki; **Krustok, Jüri; Valdna, Vello** Proceedings of the XXX Annual Conference of the Finnish Physical Society : March 21-23, 1996, Espoo, Finland 1996 / 8.29

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/acsam.2c02131> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at Scopus](#)

A PL and PLE study of high Cu content Cu₂ZnSnSe₄ films on Mo/Glass and solar cells

Sulimov, Mikhail A.; Yakushev, Michael V.; Forbes, I.; Prieto, J.M.; **Krustok, Jüri**; Edwards, P. R.; Martin, R.W. Physics of the solid state 2019 / p. 908-917 <https://doi.org/10.1134/S1063783419050214> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Preparation and characterization of SbSeI thin films

Dolcet Sadurni, Marc; Timmo, Kristi; Mikli, Valdek; Volobujeva, Olga; Mengü, Idil; Krustok, Jüri; Grossberg-Kuusk, Maarja; Kauk-Kuusik, Marit Journal of science: Advanced materials and devices 2024 / art. 100664
<https://doi.org/10.1016/j.jsamd.2023.100664>

Radiative recombination in Cu₂ZnSnSe₄ monograins studied by photoluminescence spectroscopy

Grossberg, Maarja; Krustok, Jüri; Timmo, Kristi; Altosaar, Mare Thin solid films 2009 / 7, p. 2489-2492 : ill
<https://www.sciencedirect.com/science/article/abs/pii/S0040609008014053>

Radiative recombination in Cu₂ZnSnSe₄ thin films with Cu deficiency and Zn excess

Yakushev, M. V.; Marquez-Prieto, J.; Forbes, I.; Edwards, P. R.; Zhivulko, V. D.; Mudryi, A. V.; **Krustok, Jüri**; Martin, R. W. Journal of physics D : applied physics 2015 / p. 1-7 : ill <http://dx.doi.org/10.1088/0022-3727/48/47/475109>

Radiative recombination pathways in ordered and disordered CZTSe microcrystals

Mengü, Idil; Krustok, Jüri; Kaupmees, Reelika; Mikli, Valdek; Kauk-Kuusik, Marit; Grossberg-Kuusk, Maarja Materials chemistry and physics 2023 / art. 127685 <https://doi.org/10.1016/j.matchemphys.2023.127685>

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>

Review of - SiC wide-bandgap heterostructure properties as an alternate semiconductor material

Patankar, Udayan Sunil; Rajput Priti, J.; Koel, Ants; Nitnaware, V.N. International Conference on Inventive Research in Material Science and Technology, ICIRMCT 2018 : March 23-24, 2018 2018 / art. 020011 <https://doi.org/10.1063/1.5038690> [Conference proceedings at Scopus](#) [Article at Scopus](#) [Article at WOS](#)

A review of the synthesis and photoluminescence properties of hybrid ZnO and carbon nanomaterials

Rauwel, Protima; Salumaa, Martin; Aasna, Andres; Galeckas, Augustinas; **Rauwel, Erwan** Journal of nanomaterials 2016 / art. 5320625, 12 p. : ill <https://doi.org/10.1155/2016/5320625>

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](#)

SrAl₂O₄ : Eu,Dy-screen-printed layers to create phosphorescent 2D shapes

Rojas Hernandez, Rocio Estefania; Rubio-Marcos, Fernando; Serrano-Iova, Radu-Antonio; Fernandes Lozano, J. F.; **Hussainova, Irina** XVI Conference and Exhibition Of The European Ceramic Society : abstract book 2019 / p. 525 : ill

Study of (Ag_xCu_{1-x})₂ZnSn(S,Se)₄ monograins synthesized by molten salt method for solar cell applications

Oueslati, Souhaib; Kauk-Kuusik, Marit; Neubauer, Christian; **Mikli, Valdek; Meissner, Dieter;** Brammertz, Guy; Vermang, B.; **Krustok, Jüri; Grossberg, Maarja** Solar energy 2020 / p. 586-595 <https://doi.org/10.1016/j.solener.2020.02.002> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Study of point defects in wide- bandgap Cu₂CdGeS₄ microcrystals by temperature and laser power dependent photoluminescence spectroscopy

Krustok, Jüri; Raadik, Taavi; Li, Xiaofeng; Kauk-Kuusik, Marit; Timmo, Kristi; Oueslati, Souhaib; Grossberg, Maarja Journal of physics D : applied physics 2020 / 10 p. : ill <https://doi.org/10.1088/1361-6463/ab83c1> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Study of structural and optoelectronic properties of Cu₂Zn(Sn_{1-x}Ge_x)Se₄ (x = 0 to 1) alloy compounds

Grossberg, Maarja; Timmo, Kristi; Raadik, Taavi; Kärber, Erki; Mikli, Valdek; Krustok, Jüri Thin solid films 2015 / p. 176-179 : ill <http://dx.doi.org/10.1016/j.tsf.2014.10.055>

Study of the optical properties of Sb₂(Se_{1-x}S_x)₃ (x = 0-1) solid solutions

Uslu, Mehmet Ender; Kondrotas, Rokas; Nedzinskas, Ramunas; Volobujeva, Olga; Timmo, Kristi; Kauk-Kuusik, Marit; Krustok, Jüri; Grossberg, Maarja Materials science in semiconductor processing 2022 / art. 106571 <https://doi.org/10.1016/j.mssp.2022.106571> [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](#)

Synthesis and electrophysical properties of nanometric CdS layers deposited on SnO₂-coated glass substrates by pulverization method

Botnariuc, V.; Gorceac, L.; Mikli, Valdek Journal of nanoelectronics and optoelectronics 2013 / p. 744-749

ZnO nanorods via spray deposition of solutions containing zinc chloride and thiocarbamide

Dedova, Tatjana; Volobujeva, Olga; Klauson, Jelena; Mere, Arvo; Krunks, Malle Nanoscale research letters 2007 / p. 391-396 : ill <https://link.springer.com/article/10.1007/s11671-007-9072-6>

Tailoring of bound exciton photoluminescence emission in WS₂ monolayers

Kaupmees, Reelika; Grossberg, Maarja; Ney, Marcel; **Krustok, Jüri** Physica status solidi - rapid research letters 2020 / art. 1900355, 6 p. : ill <https://doi.org/10.1002/pssr.201900355> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Temperature-resolved photoluminescence studies of CuInSe₂

Krustok, Jüri; Mäddasson, Jaan; Hjelt, Kari; Collan, Heikki Solid state communications 1995 / 10, p. 889-892

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

Kaupmees, Reelika; Walke, Peter; Madauß, Lukas; Maas, Andre; Pollmann, Erik; Schleberger, Marika; **Grossberg, Maarja; Krustok, Jüri** Physical chemistry chemical physics 2020 / p. 22609-22616 <https://doi.org/10.1039/D0CP03248D> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

The effect of S/SE ratio on the properties of Cu₂CdGe(SxSe_{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://fmtk.ut.ee/wp-content/uploads/2020/01/GSFMT2020.pdf>

The role of Cl in the chemical bath on the properties of CdS thin films

Maticiu, Natalia; Hiie, Jaan; Raadik, Taavi; Graf, Aleksandr; Gavrilov, Aleksei Thin solid films 2013 / p. 184-187 : ill

The role of deep donor-deep acceptor complexes in Cis-related compounds

Krustok, Jüri; Raudoja, Jaan; Schön, J.H.; Yakushev, M.; Collan, Heikki Thin solid films 2000 / p. 406-410 : ill

<https://www.sciencedirect.com/science/article/abs/pii/S0040609099007567>

The role of structural properties on deep defect states in Cu₂ZnSnS₄ studied by photoluminescence spectroscopy

Grossberg, Maarja; Krustok, Jüri; Raudoja, Jaan; Raadik, Taavi Applied physics letters 2012 / p. 102102-1 - 102102-4 : ill

<https://pubs.aip.org/aip/apl/article/101/10/102102/126713/The-role-of-structural-properties-on-deep-defect>

Влияние стабильности F-центров на фотолюминесценцию аддитивно окрашенного сульфида цинка

Lott, Kalju Материалы XXI совещания по люминесценции (кристаллофосфоры), 9-12 октября 1973 г. 1973 / с. 75-76

Зависимость интенсивности активаторных полос свечения селенида цинка от концентрации меди

Kukk, Peeter-Enn; Rändur, Õie Полупроводниковые материалы. 3 1976 / с. 23-30 : илл https://www.ester.ee/record=b1403374*est

<https://digikogu.taltech.ee/et/Item/5f8fd05c-ff69-4315-9d64-1d9c9611667b>

О природе 0,8 эВ полосы фотолюминесценции в легированном теллуриде кадмия

Krustok, Jüri; Lõo, Anu; Piibe, Toomas Физика и техника полупроводников 1990 / 10, с. 1888-1891: рис

Образование anomalно мелких локализованных дырочных состояний в сильнолегированном CdS

Moin, M.; Altosaar, Mare; Erm, Ants 5-я республиканская конференция молодых ученых-химиков : [тезисы докладов] 1983 / с.

240 https://www.ester.ee/record=b1312297*est

Особенности температурного поведения полосы 0,81 эВ фотолюминесценции теллурида кадмия

Krustok, Jüri; Piibe, Toomas; Лыо А.Э. Физика и техника полупроводников 1991 / 7, с. 1257-1259: ил

Фотолюминесценция гетероструктур на основе сульфида кадмия

Erm, Ants; Krunks, Malle; Piibe, Toomas; Mellikov, Enn Полупроводники и гетеропереходы : сборник статей 1987 / с. 41-43 :

илл https://www.ester.ee/record=b1262177*est

Фотолюминесценция как метод оценки качества химически пульверизованных пленок

Erm, Ants; Krunks, Malle; Mellikov, Enn Применение металлоорганических соединений для получения неорганических покрытий и материалов : тезисы докладов V всесоюзного совещания, Горький, 8-10 сентября 1987 г. 1987 / с. 191-192

https://www.ester.ee/record=b2351386*est

Фотолюминесценция порошков ZnS, легированных медью и хлором

Krustok, Jüri; Mädaßon, Jaan 5-я республиканская конференция молодых ученых-химиков : [тезисы докладов] 1983 / с. 238

: табл https://www.ester.ee/record=b1312297*est

Фотолюминесценция сульфида кадмия, легированного серебром и хлором

Krustok, Jüri; Mädaßon, Jaan; Altosaar, Mare; Kukk, Peeter-Enn V всесоюзное совещание "Синтез, свойства, исследования, технология и применение люминофоров", Ставрополь, 16-18 окт. 1985 г. : тезисы докладов. Ч. 1. 1985 / с. 20-

21