

An alternative chlorine-assisted optimization of CdS/Sb₂Se₃ solar cells : towards understanding of chlorine incorporation mechanism

Gopi, Sajeesh Vadakkedath; Spalatu, Nicolae; Katerski, Atanas; Kulicek, Jaroslav; Razek, Bohuslav; Ukrantsev, 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>

Analysis of grain orientation and defects in Sb₂Se₃ 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

Analysis of grain orientation and defects in Sb₂Se₃ solar cells fabricated by close-spaced sublimation : [journal article]

Krautmann, Robert; Spalatu, Nicolae; Gunder, Rene; Abou-Ras, Daniel; Unold, Thomas; Schorr, Susan; **Krunks, Malle; Oja Acik, Ilona** Solar energy 2021 / p. 494-500 <https://doi.org/10.1016/j.solener.2021.07.022> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Application of ultrasonic sprayed zirconium oxide dielectric in zinc tin oxide-based thin film transistor

Oluwabi, Abayomi Titilope; Katerski, Atanas; Carlos, Emanuel; Branquinho, Rita; **Mere, Arvo; Krunks, Malle;** Fortunato, Elvira; Pereira, Luis; **Oja Acik, Ilona** Journal of materials chemistry C 2020 / p. 3730-3739 : ill <https://doi.org/10.1039/C9TC05127A> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Au ja Ag nanoosakeste saamiseks kasutatavate lähteainete HAuCl₄·3H₂O ja AgNO₃ termilise lagunemise uurimine

Otto, Kairi; Oja Acik, Ilona; Krunks, Malle; Tõnsuaadu, Kaia XXXIII Eesti Keemiapäevad : teaduskonverentsi teesid 2013 / lk. 55

Band positions and electrochemistry of CdSe(x)Te(1-x) semiconductor electrodes

Wirts, Christian; **Altosaar, Mare; Krunks, Malle; Varema, Tiit; Mellikov, Enn;** Meissner, Dieter Abstracts of the First Gerischer Symposium on Semiconductor Electrochemistry, 1999 1999 / p. 8

CdS kilede saamine ja legeerimine keemilise pihustamise meetodil

Mell, U.; Krunks, Malle XXXII üliõpilaste teaduslik-tehnilise konverentsi ettekannete teesid : pühendatud V. I. Lenini 110. sünniaastapäevale : 16.-18. aprill 1980 1981 / lk. 123 https://www.ester.ee/record=b1322611*est

Characterisation of samarium and nitrogen co-doped TiO₂ films prepared by chemical spray pyrolysis

Oja Acik, Ilona; Kiisk, Valter; **Krunks, Malle;** Sildos, Ilmo; Junolainen, Agne; Danilson, Mati; **Mere, Arvo; Mikli, Valdek** Applied surface science 2012 / p. 735-741 : ill

Characterisation of zirconium doped titanium dioxide thin films deposited by chemical spray pyrolysis

Oluwabi, Abayomi Titilope; Oja Acik, Ilona; Krunks, Malle; Mikli, Valdek; Juma, Albert Owino Proceedings of 13th International Conference of Young Scientists on Energy Issues : CYSENI 2016 : May 26-27 2016, Kaunas, Lithuania 2016 / p. VII-210 - VII-218

Characterization of nanoporous TiO₂ films prepared by sol-gel method

Sabataityte, Julija; **Oja, Ilona;** Lenzmann, F.; **Volobujeva, Olga; Krunks, Malle** IPS 15 : 2004 : proceedings 2004 / ? p

Characterization of nanoporous TiO₂ films prepared by sol-gel method

Sabataityte, Julija; **Oja, Ilona;** Lenzmann, Frank; **Volobujeva, Olga; Krunks, Malle** Comptes rendus chimie 2006 / p. 708-712 : ill

Characterization of samarium and nitrogen doped TiO₂ films prepared by spray pyrolysis

Oja Acik, Ilona; Junolainen, Agne; Kiisk, Valter; Sildos, Ilmo; **Danilson, Mati; Krunks, Malle** EMRS-2010 Spring Meeting : Strasbourg, France, June 7-11 : program and book of abstracts. Symposium K 2010 / p. 4

Characterization of sprayed CuInS₂ films annealed in hydrogen sulfide atmosphere

Krunks, Malle; Mere, Arvo; Katerski, Atanas; Mikli, Valdek; Krustok, Jüri Thin solid films 2006 / p. 434-438 : ill

Characterization of sprayed large grain CuInS₂ as absorbers for solar cells

Krunks, Malle; Mere, Arvo; Kijatkina, Olga; Rebane, Helen; Mikli, Valdek 20-th NSM : Tampere, 2003 2003

Characterization of the chemical bath deposited In(OH)xSy films : effect of the growth conditions

Dedova, Tatjana; Wienke, J.; Goris, M.; **Krunks, Malle** Thin solid films 2007 / p. 6064-6067 : ill <https://www.sciencedirect.com/science/article/pii/S0040609006016348>

Chemical composition of sprayed copper indium disulfide films for nanostructured solar cells = Pihustatud vaskindiumdisulfid-kilede keemiline koostis ja rakendus nanostruktuursetes päikesepatareides

Katerski, Atanas 2011 <https://digi.lib.ttu.ee/i/?524>

Chemical purity of chemically sprayed thin films

Bijakina, Olga; Krunks, Malle; Mellikov, Enn EUROMAT 99. Volume 9, Interface controlled materials 2000 / p. 85-89
<https://onlinelibrary.wiley.com/doi/abs/10.1002/352760622X.ch14>

Chemical solution deposition of thin TiO₂-anatase films for dielectric applications

Es-Souni, M.; Oja, Ilona; Krunks, Malle Journal of materials science : materials in electronics 2004 / p. 341-344 : ill

Chemical spray deposition of zinc oxide nanostructured layers from zinc acetate solutions

Dedova, Tatjana; Klauson, Jelena; Badre, C.; Pauporte, Th.; Nisumaa, Reet; Mere, Arvo; Volobujeva, Olga; Krunks, Malle

Physica status solidi (a) : applications and materials science 2008 / 10, p. 2355-2359 : ill

<https://onlinelibrary.wiley.com/doi/abs/10.1002/pssa.200779440>

Chemical spray pyrolysis deposition of zinc sulfide thin films and zinc oxide nanostructured layers = Tsinksulfiidi õhukesed kiled ning tsinkoksiidi nanostruktuursed kihid keemilise pihustuspürolüüsi meetodil

Dedova, Tatjana 2007 <https://digi.lib.ttu.ee/i/?155> https://www.ester.ee/record=b2324660*est

Combinative solution processing and Li doping approach to develop p-type NiO thin films with enhanced electrical properties

Oluwabi, Abayomi Titilope; Spalatu, Nicolae; Maticiu, Natalia; Katerski, Atanas; Mere, Arvo; Krunks, Malle; Oja Acik, Ilona

Frontiers in materials 2023 / 12 p. : ill <https://doi.org/10.3389/fmats.2023.1060420> Journal metrics at Scopus Article at Scopus Journal

metrics at WOS Article at WOS

Comparative study of CdS films annealed in neutral, oxidizing and reducing atmospheres

Maticiu, Natalia; Kukk, Mart; Spalatu, Nicolae; Potlog, Tamara; Krunks, Malle; Valdna, Vello; Hiie, Jaan Energy procedia

2014 / p. 77-84 : ill <https://doi.org/10.1016/j.egypro.2013.12.012> Conference proceedings at Scopus Article at Scopus Article at WOS

A comparative study on physical properties of Al-doped zinc oxide thin films deposited from zinc acetate and zinc acetylacetonate by spray pyrolysis

Eensalu, Jako Siim; Krunks, Malle; Gromõko, Inga; Katerski, Atanas; Mere, Arvo Energetika 2017 / p. 46-55 : ill

<https://doi.org/10.6001/energetika.v63i2.3519> Journal metrics at Scopus Article at Scopus

A comparative study on physical properties of Al-doped zinc oxide thin films deposited from zinc acetate and zinc acetylacetonate solutions by spray pyrolysis

Eensalu, Jako Siim; Krunks, Malle; Gromõko, Inga; Katerski, Atanas; Mere, Arvo The 14th International Conference of Young Scientists on Energy Issues : Kaunas, Lithuania, May 25-26, 2017 2017 / p. X-332

http://cyseni.com/archives/proceedings/Proceedings_of_CYSENI_2017.pdf

Composition and structure of CuInS₂ films prepared by spray pyrolysis

Krunks, Malle; Mikli, Valdek; Bijakina, Olga; Rebane, Helen; Mere, Arvo; Varema, Tiit; Mellikov, Enn Thin solid films 2000 / p. 61-64 : ill

Composition and structure of CuInS₂ films prepared by spray pyrolysis

Krunks, Malle; Mikli, Valdek; Bijakina, Olga; Rebane, Helen; Mere, Arvo; Varema, Tiit; Mellikov, Enn EMRS Spring Meeting :

Strasbourg, June 1-4, 1999 : book of abstracts 1999 / p. O-13 <https://www.sciencedirect.com/science/article/abs/pii/S0040609099008354>

Composition of CuInS₂ thin films prepared by spray pyrolysis

Krunks, Malle; Kijatkina, Olga; Rebane, Helen; Oja, Ilona; Mikli, Valdek; Mere, Arvo E-MRS 2001 Spring Meeting : book of abstracts 2001 / p. P-4

Composition of CuInS₂ thin films prepared by spray pyrolysis

Krunks, Malle; Kijatkina, Olga; Rebane, Helen; Oja, Ilona; Mikli, Valdek; Mere, Arvo Thin solid films 2002 / p. 71-75 : ill

Controlled annealing process for efficient CdTe thin film solar cells [Online resource]

Spalatu, Nicolae; Hiie, Jaan; Krunks, Malle [2018 E-MRS Spring Meeting and Exhibit : Materials for energy and environment : Thin film chalcogenide photovoltaic materials : program] 2018 / A.PII.29 <https://www.european-mrs.com/thin-film-chalcogenide-photovoltaic-materials-emrs> [https://www.etis.ee/File/DownloadPublic/d661bb08-33fb-49cb-9ce9-8c6e1c3228ce?](https://www.etis.ee/File/DownloadPublic/d661bb08-33fb-49cb-9ce9-8c6e1c3228ce?name=Fail_Abtracts%20EMRS%202018_SYMPOSIUM%20A_Thin%20film%20chalcogenide%20photovoltaic%20materials.pdf&type=application%2Fpdf)

[name=Fail_Abtracts%20EMRS%202018_SYMPOSIUM%20A_Thin%20film%20chalcogenide%20photovoltaic%20materials.pdf&type=application%2Fpdf](https://www.etis.ee/File/DownloadPublic/d661bb08-33fb-49cb-9ce9-8c6e1c3228ce?name=Fail_Abtracts%20EMRS%202018_SYMPOSIUM%20A_Thin%20film%20chalcogenide%20photovoltaic%20materials.pdf&type=application%2Fpdf)

Copper indium disulfide films by chemical spray pyrolysis for photovoltaics

Krunks, Malle; Mere, Arvo; Katerski, Atanas Proceedings of the International Conference on Solar Cells : IC-SOLACE 2008 :

January 21-23, 2008, Cochin, India 2008 / p. 16-19

Copper sulfides by chemical spray pyrolysis process

Krunks, Malle; Mellikov, Enn; Bijakina, Olga Physica scripta 1997 / p. 189-192

Copper sulfides by chemical spray pyrolysis process

Krunk, Malle; Mellikov, Enn; Bijakina, Olga Abstracts of 17th Nordic Semiconductor Meeting, June 17-20, 1996, Trondheim, Norway 1996 / p. 62-63

Corrigendum to "Screening and optimization of processing temperature for Sb₂Se₃ thin film growth protocol: Interrelation between grain structure, interface intermixing and solar cell performance" [Solar Energy Mater. Solar Cell. 225 (2021) 1–13 111045](S092702482100088X)(10.1016/j.solmat.2021.111045)

Spalatu, Nicolae; Krautmann, Robert; Katerski, Atanas; Kärber, Erki; Josepson, Raavo; Hiie, Jaan; Oja Acik, Ilona; Krunk, Malle Solar Energy Materials and Solar Cells 2021 / Art. 111098 <https://doi.org/10.1016/j.solmat.2021.111098> [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 Sb₂S₃ 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; **Krunk, 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>

Cost-effective sprayed CuInS₂ films for solar cells

Blums, J.; **Krunk, Malle; Mere, Arvo** 17th European PVSEC1 : book of abstracts 2001 / p. B1.50

Cost-effective sprayed CuInS₂ films for solar cells

Krunk, Malle; Kijatkina, Olga; Blums, J.; **Oja, Ilona; Mere, Arvo; Mellikov, Enn** Seventeenth European Photovoltaic Solar Energy Conference : proceedings of the International Conference held in Munich, Germany, 22-26 October, 2001. Volume II 2002 / p. 1211-1214 : ill

Crystal quality studies of CuInS₂ films prepared by spray pyrolysis

Oja, Ilona; Nanu, M.; **Katerski, Atanas; Krunk, Malle; Mere, Arvo; Raudoja, Jaan;** Goossens, A. Thin solid films 2005 / p. 82-86 : ill

Cu₂ZnSnSe₄ monograin powders for solar cell application [Electronic resource]

Altosaar, Mare; Raudoja, Jaan; Timmo, Kristi; Danilson, Mati; Grossberg, Maarja; Krunk, Malle; Varema, Tiit; Mellikov, Enn 2006 IEEE 4th World Conference on Photovoltaic Energy Conversion - WCPEC 2006 / [CD-ROM]

CuInS₂ kilede koostise uurimine XPS meetodil

Katerski, Atanas; Danilson, Mati; Mere, Arvo; Krunk, Malle XXXI Eesti keemiapäevad : [28. aprill 2010, Tallinn] : teaduskonverentsi teesid = 31st Estonian Chemistry Days : abstracts of scientific conference 2010 / lk. 41

CuInS₂ solar cell absorber plasmonically modified by gold nanoparticles

Repän, Taavi; Dolgov, Leonid; **Katerski, Atanas; Oja Acik, Ilona; Kärber, Erki; Mere, Arvo; Mikli, Valdek; Krunk, Malle;** Sildos, Ilmo Applied physics. A, Materials science & processing 2014 / p. 455-458 : ill <https://doi.org/10.1007/s00339-014-8681-z> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

CuInS₂ sprayed films on different metal oxide underlayers

Kijatkina, Olga; Krunk, Malle; Mere, Arvo; Mahrov, B.; Dloczik, L. Thin solid films 2003 / p. 105-109 : ill

CuInS₂ sprayed films on different metal oxide underlayers

Kijatkina, Olga; Krunk, Malle; Mere, Arvo; Mahrov, B.; Dloczik, L. EMRS 2002, B/PI 2002 / p. 11

CuInS₂ thin films: formation by spray pyrolysis and properties

Krunk, Malle; Bijakina, Olga; Mikli, Valdek; Mellikov, Enn The Fourth Baltic Symposium on Atomic Layer Epitaxy, Tartu, Estonia, October 10-11, 1997 : abstracts 1997 / p. 30

CuInS₂ õhukesed kiled fotoelementidele pihustus-pürolüüsi meetodil

Krunk, Malle; Bijakina, Olga; Varema, Tiit; Mere, Arvo; Mikli, Valdek XXV Eesti keemiapäevad : teaduskonverentsi ettekannete referaadid = 25th Estonian Chemistry Days : abstracts of scientific conference 1999 / lk. 60-61

Deposition of copper indium disulphide films by chemical spray pyrolysis

Kijatkina, Olga 2004 https://www.ester.ee/record=b1926863*est

Deposition of In₂S₃ thin films by chemical spray pyrolysis = In₂S₃ õhukesed kiled keemilise pihustus-pürolüüsi meetodil

Otto, Kairi 2012 https://www.ester.ee/record=b2887804*est

Deposition of p-type NiO films by chemical spray pyrolysis

Krunk, Malle; Soon, Jaanika; Unt, Tarmo; Mere, Arvo; Mikli, Valdek Vacuum 2014 / p. 242-246 : ill <https://doi.org/10.1016/j.vacuum.2014.02.013> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Deposition of Sb₂Se₃ thin films by ultrasonic spray pyrolysis for photovoltaic applications = Päikesepatareides rakendatavate Sb₂Se₃ õhukeste kilede sadestamine ultrahelipihustuspürolüüsi meetodil

Eensalu, Jako Siim 2022 <https://doi.org/10.23658/taltech.1/2022> <https://digikogu.taltech.ee/et/Item/6c2df448-6e67-496b-9e31-87205057d560> https://www.ester.ee/record=b5492121*est

Determination of charge carrier density in zinc oxide nanorods prepared by chemical spray pyrolysis

Kärber, Erki; Dedova, Tatjana; Oja Acik, Ilona; Krunks, Malle; Mere, Arvo; Mikli, Valdek Proceedings of CYSENI 2010 : the 7th Annual Conference of Young Scientists on Energy Issues : May 27-28, 2010, Kaunas, Lithuania 2010 / p. 340-344

Development and application of energy producing solar pavement in Estonia

Jalakas, Tanel; Chub, Andrii; Vinnikov, Dmitri; Spalatu, Nicolae; Gudkova, Viktoria; Krunks, Malle; Mere, Arvo; Lahi, Allan 2022 IEEE 63th International Scientific Conference on Power and Electrical Engineering of Riga Technical University (RTU CON): conference proceedings 2022 / 5 p. : ill <https://doi.org/10.1109/RTU CON56726.2022.9978908>

Development of antimony sulfide thin-film solar cells for semitransparent applications

Beglaryan, Robert; Katerski, Atanas; Oja Acik, Ilona; Krunks, Malle Graduate School of Functional Materials and Technology (GSFMT) Scientific Conference : abstracts 2022 / 9 l. [Graduate School of Functional Materials and Technology \(GSFMT\) Scientific Conference 2022](#)

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 l. [Graduate School of Functional Materials and Technology \(GSFMT\) Scientific Conference 2022](#)

Development of CdTe absorber layer for thin-film solar cells = CdTe absorberkile arendamine õhukesekilelistele päikesepatareidele

Spalatu, Nicolae 2017 <https://digi.lib.ttu.ee/i/?7230> https://www.ester.ee/record=b4649791*est

Development of porous TiO₂ thin films by sol-gel process

Oja, Ilona; Sabataityte, Julija; Volobujeva, Olga; Krunks, Malle The Fourth International Conference on Advanced Optical Materials and Devices : (AOMD-4) : Tartu, Estonia, July 6-9, 2004 : abstracts 2004 / p. 46

Development of semi-transparent Sb₂Se₃ solar cells with fluorene-based compounds as hole transport materials = Poolläbipaistvate Sb₂Se₃ päikesepatareide arendus : fluoreenipõhised ühendid aukude transportkihi materjalina

Juneja, Nimish 2024 https://www.ester.ee/record=b5712253*est <https://digikogu.taltech.ee/et/Item/f10c197f-3140-40cb-97c6-64a4670d4d1b> <https://doi.org/10.23658/taltech.68/2024>

Development of spray pyrolysis-synthesised Bi₂O₃ thin films for photocatalytic applications

Sydorenko, Jekaterina; Krunks, Malle; Katerski, Atanas; Grzibovskis, Raitis; Vembris, Aivars; Mere, Arvo; Spalatu, Nicolae; Oja Acik, Ilona RSC advances 2024 / p. 19648-19657 <https://doi.org/10.1039/D4RA02907K>

Development of sprayed CuInS₂ thin film absorber for nanostructured solar cell

Katerski, Atanas; Kärber, Erki; Krunks, Malle; Mikli, Valdek; Mere, Arvo Materials Research Society symposium proceedings 2012 https://www.researchgate.net/publication/271903084_Development_of_sprayed_CuInS2_thin_film_absorber_for_nanostructured_solar_cell

Development of ZnO nanorod and NiO thin film based materials for photocatalytic applications = ZnO nanovarrastel ja NiO õhukestel kiledel baseeruvate fotokatalüütiliste materjalide arendus

Chen, Zengjun 2022 <https://doi.org/10.23658/taltech.67/2022> <https://digikogu.taltech.ee/et/Item/838942f1-9577-4109-b783-8c2b5ce8def3> https://www.ester.ee/record=b5526162*est

Development of ZNO nanorods and NIO film based photocatalysts by solution methods for degradation of dyes in aqueous solution

Chen, Zengjun; Dedova, Tatjana; Krunks, Malle Graduate School of Functional Materials and Technology (GSFMT) Scientific Conference : abstracts 2022 / 13 p [Graduate School of Functional Materials and Technology \(GSFMT\) Scientific Conference 2022](#)

Dielectric relaxation and conduction mechanisms in sprayed TiO₂ thin films as a function of the annealing temperature

Juma, Albert Owino; Oja Acik, Ilona; Mere, Arvo; Krunks, Malle Applied physics. A, Materials science & processing 2016 / art. 359, p. 1-6 : ill <https://doi.org/10.1007/s00339-016-9874-4> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Dopant-free fluorene based dimers linked with thiophene units as prospective hole transport materials for Sb₂S₃ solar cells

Juneja, Nimish; Jegorove, Aiste; Grzibovskis, Raitis; Katerski, Atanas; Malinauskas, Tadas; Vembris, Aivars; Karazhanov, Smagul; Spalatu, Nicolae; Getautis, Vytautas; Krunks, Malle; Oja Acik, Ilona Sustainable Energy & Fuels 2024 / p. 4324-4334 <https://doi.org/10.1039/D4SE00472H> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Eesti materjaliuurijate tegevus õhukesekileliste päikesepatareide arendamisel
Krunks, Malle Keskkonnatehnika 2006 / 5, lk. 6-11 : ill https://artiklid.elnet.ee/record=b2055517*est

Effect of CdCl₂ annealing treatment on structural and optoelectronic properties of close spaced sublimation CdTe/CdS thin film solar cells vs deposition conditions

Spalatu, Nicolae; Hiie, Jaan; Mikli, Valdek; Krunks, Malle; Valdna, Vello; Maticiuc, Natalia; Raadik, Taavi; Caraman, Mihail
Thin solid films 2015 / p. 128-133 : ill <http://dx.doi.org/10.1016/j.tsf.2014.11.066> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Effect of CdCl₂ vapor phase pretreatment annealing on the properties of CSS CdS and CdTe/CdS thin film solar cells

Spalatu, Nicolae; Hiie, Jaan; Valdna, Vello; Krunks, Malle; Caraman, Mihail; Mikli, Valdek; Maticiuc, Natalia 2014 Spring Meeting Lille, France : May 26-30. Symposium A, Thin film chalcogenide photovoltaic materials 2014 / p. 17

Effect of H₂S treatment on properties of CuInS₂ thin films deposited by chemical spray pyrolysis at low temperature

Kärber, Erki; Katerski, Atanas; Oja Acik, Ilona; Mikli, Valdek; Mere, Arvo; Krunks, Malle Thin solid films 2011 / p. 7180-7183 : ill

Effect of solution composition on anatase to rutile transformation of sprayed TiO₂ thin films

Juma, Albert Owino; Oja Acik, Ilona; Mikli, Valdek; Mere, Arvo; Krunks, Malle Thin solid films 2015 / p. 287-292 : ill
<https://doi.org/10.1016/j.tsf.2015.03.036> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Effect of solution spray rate on the properties of chemically sprayed ZnO:In thin films

Kriisa, Merike; Krunks, Malle; Kärber, Erki; Kukk, Mart; Mikli, Valdek; Mere, Arvo Journal of nanomaterials 2013 / p. 1-9 : ill
<https://doi.org/10.1155/2013/423632> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Effect of substrate morphology on the nucleation and growth of ZnO nanorods prepared by spray pyrolysis

Dedova, Tatjana; Oja Acik, Ilona; Krunks, Malle; Mikli, Valdek; Volobujeva, Olga; Mere, Arvo Thin solid films 2012 / p. 4650-4653 : ill <https://www.sciencedirect.com/science/article/abs/pii/S0040609011020827>

Effect of Zn:S molar ratio in solution on the properties of ZnS thin films and the formation of ZnS nanorods by spray pyrolysis

Dedova, Tatjana; Krunks, Malle; Gromõko, Inga; Mikli, Valdek; Sildos, Ilmo; Utt, Kathriin; Unt, Tarmo Physica status solidi (a) : applications and materials science 2014 / p. 514-521 : ill <https://doi.org/10.1002/pssa.201300215> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Effect of Zr doping on the structural and electrical properties of spray deposited TiO₂ thin films

Oluwabi, Abayomi Titilope; Juma, Albert Owino; Oja Acik, Ilona; Mere, Arvo; Krunks, Malle Proceedings of the Estonian Academy of Sciences 2018 / p. 147-157 : ill <https://doi.org/10.3176/proc.2018.2.05> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Effect of the growth temperature on chemical composition of spray-deposited CuInS₂ thin films

Katerski, Atanas; Danilson, Mati; Mere, Arvo; Krunks, Malle Energy procedia 2010 / p. 103-107 : ill

Effect of the titanium isopropoxide : acetylacetone molar ratio on the photocatalytic activity of TiO₂ thin films

Spiridonova, Jekaterina; Katerski, Atanas; Danilson, Mati; Kritševskaja, Marina; Krunks, Malle; Oja Acik, Ilona Molecules 2019 / art. 4326, 14 p. : ill <https://doi.org/10.3390/molecules24234326> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Effect of the titanium isopropoxide : acetylacetone molar ratio on the photocatalytic activity of TiO₂ thin films : [conference paper]

Spiridonova, Jekaterina; Katerski, Atanas; Danilson, Mati; Kritševskaja, Marina; Krunks, Malle; Oja Acik, Ilona GSFMT Scientific Conference 2020 : Tallinn, February 4-5, 2020 : abstracts 2020 / p. 78 <http://fmtk.ut.ee/wp-content/uploads/2020/01/GSFMT2020.pdf>

Effect of titanium(IV)isopropoxide and acetylacetone molar ratio in the solution on spray deposited TiO₂ films

Oja Acik, Ilona; Krunks, Malle; Mere, Arvo; Otto, Kairi; Mikli, Valdek TÜ ja TTÜ doktorikool "Funktsionaalsed materjalid ja tehnoloogiad" 2013 / [1] p

Effect of titanium(IV)isopropoxide and acetylacetone molar ratio in the solution on spray deposited TiO₂ films

Junolainen, Agne; Oja Acik, Ilona; Mikli, Valdek; Krunks, Malle E-MRS 2011 Spring Meeting : program and book of abstracts. Symp. D : Nice, May 9-13, 2011 2011 / p. 18

Electrical characterization of all-layers-sprayed solar cell based on ZnO nanorods and extremely thin CIS absorber

Kärber, Erki; Katerski, Atanas; Krunks, Malle Solar energy 2013 / p. 48-58 : ill <https://doi.org/10.1016/j.solener.2013.01.020> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Electrical characterization of nanostructured CIS solar cell prepared by chemical spray pyrolysis

Kärber, Erki; Abass, Aimi; Khelifi, Samira; Burgelman, Marc; **Mere, Arvo**; **Katerski, Atanas**; **Krunks, Malle** NEXTGEN NANO PV : book of abstracts 2013 / p. 80-81

Electrical properties of sprayed CuInS₂ films for solar cells

Mere, Arvo; **Kijatkina, Olga**; **Rebane, Helen**; **Krustok, Jüri**; **Krunks, Malle** Journal of physics and chemistry of solids 2003 / Issues 9/10, p. 2025-2029 : ill

Electrical, optical and structural properties of sprayed CuInS₂ films for solar cells

Mere, Arvo; **Kijatkina, Olga**; **Rebane, Helen**; **Krunks, Malle** ICTMC13 : 13th International Conference on Ternary and Multinary Compounds, Paris, 2002, October 14th-18th : book of abstracts 2002 / p. 212

Electrodeposited molybdenum oxide coatings for thin film chalcopyrite solar cells

Ganchev, Maxim; Dimitrov, Dimiter; Stankova, Stanka; **Katerski, Atanas**; Gadjev, Iliya; **Volobujeva, Olga**; **Mere, Arvo**; **Bereznev, Sergei**; **Krunks, Malle** 10th Jubilee Conference of the Balkan Physical Union 2019 / art. 140002 <https://doi.org/10.1063/1.5091317>
[Conference proceedings at Scopus](#) [Article at Scopus](#) [Article at WOS](#)

Electrodeposited ZnO morphology transformations under the influence of SeO₂ additive: Rods, disks, nanosheets network

Gromōko, Inga; **Dedova, Tatjana**; **Polivtseva, Svetlana**; **Kois, Julia**; Puust, Laurits; Sildos, Ilmo; **Mere, Arvo**; **Krunks, Malle** Thin solid films 2018 / p. 10-15 : ill <https://doi.org/10.1016/j.tsf.2017.12.004> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Electronic structure and defect states in bismuth and antimony sulphides identified by energy-resolved electrochemical impedance spectroscopy

Miliaieva, D.; Nadaždy, V.; **Koltsov, M. A.**; Lopez, C.; Saeeyekta, H.; Kuliček, J.; Cazorla, C.; Saucedo, E.; Grzibovskis, Raitis; Vembris, Aivars; **Krunks, Malle**; **Spalatu, Nicolae** Journal of Physics Energy 2025 / art. 035012 <https://doi.org/10.1088/2515-7655/add59f>

EMI-transparent SB2S3 solar cells with fluorene-based enamine as hole transport material

Juneja, Nimish; **Mandati, Sreekanth**; Daskeviciute-Geguziene, Sarune; Vembris, Aivars; Getautis, Vytautas; **Krunks, Malle**; **Oja Acik, Ilona** Graduate School of Functional Materials and Technology (GSFMT) Scientific Conference : abstracts 2022 / 21 I. [Graduate School of Functional Materials and Technology \(GSFMT\) Scientific Conference 2022](#)

Employment of dopant-free fluorene-based enamines as innovative hole transport materials to boost the transparency and performance of Sb2S3 based solar cells

Juneja, Nimish; Daskeviciute-Geguziene, Sarune; **Spalatu, Nicolae**; **Mandati, Sreekanth**; **Katerski, Atanas**; Grzibovskis, Raitis; Vembris, Aivars; Karazhanov, Smagul; Getautis, Vytautas; **Krunks, Malle**; **Oja Acik, Ilona** Materials science in semiconductor processing 2024 / art. 107934 <https://doi.org/10.1016/j.mssp.2023.107934>

Energiat tootev teekatend nüüd ka Eestis

Jalakas, Tanel; **Chub, Andrii**; **Vinnikov, Dmitri**; **Spalatu, Nicolae**; Gudkova, Viktoria; **Krunks, Malle**; **Mere, Arvo**; **Lahi, Allan**; Lindvest, Andre Elektriala 2023 / lk. 14-16 : portr., fot https://www.ester.ee/record=b1240496*est

Enhanced photocatalytic activity of ZnO nanorods by surface treatment with HAuCl₄ : synergic effects through an electron scavenging, plasmon resonance and surface hydroxylation

Dedova, Tatjana; **Oja Acik, Ilona**; **Chen, Zengjun**; **Katerski, Atanas**; **Balmassov, Kirill**; **Gromōko, Inga**; Nagyne-Kovacs, T.; Szilagyi, I.M.; **Krunks, Malle** Materials chemistry and physics 2020 / art. 122767 <https://doi.org/10.1016/j.matchemphys.2020.122767>
[Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Enhanced visible and ultraviolet light-induced gas-phase photocatalytic activity of TiO₂ thin films modified by increased amount of acetylacetone in precursor solution for spray pyrolysis

Spiridonova, Jekaterina; **Mere, Arvo**; **Krunks, Malle**; **Rosenberg, Merilin**; Kahru, Anne; **Danilson, Mati**; **Kritševskaja, Marina**; **Oja Acik, Ilona** Catalysts 2020 / 21 p. : ill <https://doi.org/10.3390/catal10091011> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Evolved gas analysis of dichlorobis(thiourea)zinc(II) by coupled TG-FTIR and TG/DTA-MS techniques

Madaras, Janos; **Krunks, Malle**; Niinistö, Lauri; Pokol, György Journal of thermal analysis and calorimetry 2004 / p. 679-686 : ill <https://link.springer.com/article/10.1023/B:JTAN.0000046127.69336.90>

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](#)

Extremely thin absorber layer nanostructured solar cell by chemical spray pyrolysis

Mere, Arvo; **Katerski, Atanas**; **Dedova, Tatjana**; **Oja Acik, Ilona**; **Krunks, Malle** Proceedings 23rd European Photovoltaic Solar Energy Conference : 1-5 September, 2008, Valencia, Spain 2008 / p. 2147-2150

Extremely thin absorber layer solar cells on zinc oxide nanorods by chemical spray

Krunks, Malle; Kärber, Erki; Katerski, Atanas; Otto, Kairi; Oja Acik, Ilona; Dedova, Tatjana; Mere, Arvo Solar energy materials & solar cells 2010 / p. 1191-1195

Formation and properties of chemically sprayed ZnO films

Krunks, Malle; Mellikov, Enn; Bijakina, Olga; Varema, Tiit; Meissner, Dieter Optical organic and semiconductor inorganic materials 1997 / p. 129-134

Formation and properties of chemically sprayed ZnO films

Krunks, Malle; Mellikov, Enn; Bijakina, Olga; Varema, Tiit; Meissner, Dieter International Conference Advanced Optical Materials and Devices, Riga, 1996 1996 / p. 193

Formation and recrystallization of CuInS₂ films in spray pyrolytic process

Krunks, Malle; Bijakina, Olga; Mikli, Valdek; Varema, Tiit 24th Estonian Chemistry Days : abstracts of scientific conference 1998 / p. 33

Formation of A II B VI films by spray pyrolysis

Krunks, Malle; Mellikov, Enn; Sork, Eeve; Iljina, Natalja Journal of materials and product. technology 1991

Formation of A₂B₆ films by spray pyrolysis

Krunks, Malle; Mellikov, Enn Chair of Semiconductor Materials Technology : activity report, 1988-1993 1994 / p. 28-30

Formation of CdS and CdZnS films by spray pyrolysis

Krunks, Malle; Mellikov, Enn; Sork, Eeve 11th International Symposium on Photon-Detectors, Weimar, September, 11-13, 1984 1984 / S. 24

Formation of CdS films by spray pyrolysis

Krunks, Malle; Mellikov, Enn; Sork, Eeve Thin solid films 1986 / p. 105-109

<https://www.sciencedirect.com/science/article/abs/pii/0040609086902579> https://www.eester.ee/record=b1202480*est

Formation of CdS thin films by spray pyrolysis

Krunks, Malle; Mellikov, Enn; Iljina, Natalja; Sork, Eeve Международная конференция Химия твердого тела. Т. 2 1990 / с. 152

Formation of CuInS₂ in spray pyrolysis as simulated by thermal analysis

Krunks, Malle; Leskelä, Tuula; Niinistö, Lauri Japanese journal of applied physics 2000 / p. 181-186

Formation of CuInS₂ thin films by chemical spray pyrolysis

Krunks, Malle; Bijakina, Olga; Mellikov, Enn; Varema, Tiit Book of Abstracts of the 11th International Conference on Ternary & Multinary Compounds, 8-12 September 1997, Salford, England 1997 / p. 2.28

Formation of CuInS₂ thin films by chemical spray pyrolysis

Krunks, Malle; Bijakina, Olga; Mellikov, Enn; Varema, Tiit Ternary and Multinary Compounds : proceedings of the 11th International Conference on Ternary and Multinary Compounds, ICTMC-11, University of Salford, 8-12 September 1997 1998 / p. 325-328: ill

Formation of metal sulfide thin films in chemical spray pyrolysis process

Krunks, Malle Pyrolysis 2002 : 15th International Symposium on Analytical and Applied Pyrolysis, Leoben, Austria, September 17th to 20th 2002 : abstracts volume 2002 / p. 59

4.9 % efficient Sb₂S₃ 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/acsaeam.2c04097> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Fundamental studies for improved photovoltaic materials and devices

Mellikov, Enn; Krunks, Malle; Altosaar, Mare; Krustok, Jüri; Valdna, Vello Proceedings of International Conference QUANTSOL'99 : Wildhaus, Switzerland, 1999 1999 / p. 41-45

Gas sensing capability of spray deposited Al-doped ZnO thin films

Eensalu, Jako Siim; Katerski, Atanas; Mere, Arvo; Krunks, Malle Proceedings of the Estonian Academy of Sciences 2018 / p. 124-130 : ill <https://doi.org/10.3176/proc.2018.2.02> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Gas sensing capability of spray deposited Al-doped ZnO thin films [Online resource]

Eensalu, Jako Siim; Katerski, Atanas; Mere, Arvo; Krunks, Malle 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 <http://fntdk.ut.ee/teesid-2018/>

Gas-phase photocatalytic oxidation of VOCs on the TiO₂ thin films

Sydorenko, Jekaterina; Danilson, Mati; Mere, Arvo; Krunks, Malle; Kritševskaja, Marina; Oja Acik, Ilona GSFMT Scientific Conference 2021 : Tartu, June 14-15, 2021 : abstracts 2021 / O 10 https://fntdk.ut.ee/wp-content/uploads/2021/06/GSFMT_abstractbook_2021.pdf

Growth and electrical properties of ZnO nanorod arrays prepared by chemical spray pyrolysis

Krunks, Malle; Dedova, Tatjana; Kärber, Erki; Mikli, Valdek; Oja Acik, Ilona; Grossberg, Maarja; Mere, Arvo Physica B 2009 / p. 4422-4425 : ill

Growth and properties of ZnO films on polymeric substrate by spray pyrolysis method

Kriisa, Merike; Kärber, Erki; Krunks, Malle; Mikli, Valdek; Unt, Tarmo; Kukkk, Mart; Mere, Arvo Thin solid films 2014 / p. 87-92 : ill <https://doi.org/10.1016/j.tsf.2013.05.150> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Growth and recrystallization of CuInS₂ films in spray pyrolytic process

Krunks, Malle; Mikli, Valdek; Bijakina, Olga; Mellikov, Enn Applied surface science 1999 / p. 356-361: ill

Growth and recrystallization of CuInS₂ films in spray pyrolytic process

Krunks, Malle; Mikli, Valdek; Bijakina, Olga; Varema, Tiit; Mellikov, Enn Ninth International Conference on Solid Films and Surfaces : ICSFS-9 : July 6th - 10th, 1998, Copenhagen, Denmark : final program & the book of abstracts 1998 / p. P1.CG.13 <https://ui.adsabs.harvard.edu/abs/1999ApSS..142..356K/abstract>

Growth of zinc oxide nanostructured layers on SnO₂ electrodes by spray pyrolysis

Dedova, Tatjana; Volobujeva, Olga; Gromõko, Inga; Mikli, Valdek; Mere, Arvo; Krunks, Malle TÜ ja TTÜ doktorikool "Funktsionaalsed materjalid ja tehnoloogiad" 2013 / [1] p

Growth of ZnO rods on FTO electrodes by spray pyrolysis

Dedova, Tatjana; Volobujeva, Olga; Krunks, Malle; Mikli, Valdek; Gromõko, Inga; Katerski, Atanas; Mere, Arvo IOP conference series : materials science and engineering 2013 / [4] p. : ill <https://doi.org/10.1088/1757-899X/49/1/012001> [Conference Proceedings at Scopus](#) [Article at Scopus](#) [Article at WOS](#)

Growth of ultra-thin TiO₂ films by spray pyrolysis on different substrates

Oja Acik, Ilona; Junolainen, Agne; Mikli, Valdek; Danilson, Mati; Krunks, Malle Applied surface science 2009 / 5, p. 1391-1394 : ill

Hierarchical nanostructures of ZnO obtained by spray pyrolysis

Dedova, Tatjana; Krunks, Malle; Oja Acik, Ilona; Klauson, Deniss; Volobujeva, Olga; Mere, Arvo Materials chemistry and physics 2013 / p. 69-75 : ill <https://doi.org/10.1016/j.matchemphys.2013.04.026> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

High efficient photovoltaics in Estonia

Altosaar, Mare; Bereznev, Sergei; Kauk, Marit; Krunks, Malle; Krustok, Jüri; Mellikov, Enn; Raudoja, Jaan; Varema, Tiit Proc. 3rd Workshop held at JRC Ispra, 2-3 Oct. 2003 2004 / p. 179-190

High-K ZrO₂ thin films by chemical spray pyrolysis method [Online resource]

Oluwabi, Abayomi Titilope; Oja Acik, Ilona; Katerski, Atanas; Krunks, Malle 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 <http://fntdk.ut.ee/teesid-2018/>

High-κ metal oxide thin film by chemical spray pyrolysis : from optimization of material properties to application in thin film transistor = Metallioksiidi õhukesed kiled keemilise pihustuspürolüüsi meetodil : materjali omaduste optimeerimine ja rakendamine õhukesekilelistes transistorides

Oluwabi, Abayomi Titilope 2020 <https://digikogu.taltech.ee/et/Item/4b6d9afd-74d2-40ac-9c12-335d2f608474>
https://www.ester.ee/record=b5362429*est

Impact of post-deposition treatments on properties of SnS films and solar cells grown by close-spaced sublimation technique [Online resource]

Spalatu, Nicolae; Hiie, Jaan; Krunks, Malle [2018 E-MRS Spring Meeting and Exhibit : Materials for energy and environment : Thin film chalcogenide photovoltaic materials : program] 2018 / A.PV.27 <https://www.european-mrs.com/thin-film-chalcogenide-photovoltaic-materials-emrs>

Impacts of different solvents and substrates on properties of zinc oxide nanorod layers prepared by chemical spray pyrolysis

Annert, Katre; Vent, Merike; Dedova, Tatjana; Kärber, Erki; Oja Acik, Ilona; Volobujeva, Olga; Mere, Arvo; Krunks, Malle; Mikli, Valdek Proceedings of CYSENI 2010 : the 7th Annual Conference of Young Scientists on Energy Issues : May 27-28, 2010,

In2S3 kilede moodustumine pihustuspürolüüsi protsessis : termooanalüütiline uuring

Otto, Kairi; Oja Acik, Ilona; Tõnsuaadu, Kaia; Krunks, Malle XXXII Eesti Keemiapäevad : teaduskonverentsi teesid 2011 / lk. 70

In2S3 õhukeste kilede sadestamine pihustuspürolüüsi meetodil

Otto, Kairi; Katerski, Atanas; Mere, Arvo; Krunks, Malle XXXI Eesti keemiapäevad : [28. aprill 2010, Tallinn] : teaduskonverentsi teesid = 31st Estonian Chemistry Days : abstracts of scientific conference 2010 / lk. 60

Increased efficiency inside the CdTe solar cell absorber caused by plasmonic metal nanoparticles

Repän, Taavi; Pikker, Siim; Dolgov, Leonid; Loot, Ardi; Hiie, Jaan; Krunks, Malle; Sildos, Ilmo Energy procedia 2014 / p. 229-233 : ill <https://doi.org/10.1016/j.egypro.2013.12.032> [Conference proceeding at Scopus](#) [Article at Scopus](#) [Article at WOS](#)

Indium sulfide thin films deposited by chemical spray of aqueous and alcoholic solutions

Otto, Kairi; Katerski, Atanas; Volobujeva, Olga; Mere, Arvo; Krunks, Malle Energy procedia 2011 / p. 63-69

Inexpensive fluorene-based hole transporting material with terminated thiophene unit for efficient semi-transparent Sb2S3 solar cells

Jegorove, Aiste; Mandati, Sreekanth; 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 Na doping on opto-electrical properties of CdTe:Cl

Altosaar, Mare; Kuk, Peeter-Enn; Raudoja, Jaan; Krustok, Jüri; Krunks, Malle; Mellikov, Enn; Raudoja, Jaan vt.ka Mäddasson, Jaan 11th International Photovoltaic Science and Engineering Conference : Sept. 20-24/1999, Hokkaido, Japan : technical digest 1999 / p. 457-458: ill

Influence of post-UV/ozone treatment of ultrasonic-sprayed zirconium oxide dielectric films for a low-temperature oxide thin film transistor

Oluwabi, Abayomi Titilope; Gaspar, Diana; Katerski, Atanas; Mere, Arvo; Krunks, Malle; Pereira, Luis; Oja Acik, Ilona Materials 2020 / art. 6, 14 p. : ill <https://doi.org/10.3390/ma13010006> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Influence of solution composition on sprayed ZnO nanorods properties and formation process: Thermoanalytical study of the precursors

Dedova, Tatjana; Oja Acik, Ilona; Polivtseva, Svetlana; Krunks, Malle; Gromõko, Inga; Tõnsuaadu, Kaia; Mere, Arvo Ceramics international 2019 / p. 2887-2892 : ill <https://doi.org/10.1016/j.ceramint.2018.07.274> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Influence of the secondary thermal annealing on the properties of CdTe/CdS:CdCl2:O2 structure

Yang, Wangjun; Spalatu, Nicolae; Maticiu, Natalia; Krunks, Malle; Hiie, Jaan Proceedings of 13th International Conference of Young Scientists on Energy Issues : CYSENI 2016 : May 26-27 2016, Kaunas, Lithuania 2016 / p. VII-220 - VII-225 : ill

Influence of vapour transport deposition conditions on properties of SB2SE3 thin film absorber and solar cells

Gopi, Sajeesh Vadakkedath; Spalatu, Nicolae; Katerski, Atanas; Krunks, Malle; Oja Acik, Ilona Graduate School of Functional Materials and Technology (GSFMT) Scientific Conference : abstracts 2022 / 18 l. [Graduate School of Functional Materials and Technology \(GSFMT\) Scientific Conference 2022](#)

In(OH)xSy thin films by chemical bath deposition

Dedova, Tatjana; Krunks, Malle Conference on Knowledge-based Materials and Technologies for Sustainable Chemistry : 1-5 June 2005, Tallinn, Estonia : abstract book 2005 / p. 82

In(OH)xSy õhukesed kiled keemilise vanni meetodil

Dedova, Tatjana; Krunks, Malle XXIX Eesti keemiapäevad : teaduskonverentsi ettekannete teesid = 29th Estonian Chemistry Days : abstracts of scientific conference 2005 / lk. 8

In-situ deposition of gold nanoparticles onto different substrates by chemical spray pyrolysis

Oja Acik, Ilona; Oyekoya, Gboyega Nathaniel; Mere, Arvo; Katerski, Atanas; Mikli, Valdek; Krunks, Malle IOP conference series : materials science and engineering 2015 / 5 p. : ill <https://doi.org/10.1088/1757-899X/77/1/012009> [Conference proceedings at Scopus](#) [Article at Scopus](#) [Article at WOS](#)

Interaction of Chrysosporium merdarium with titanium oxide surface

Binkauskiene, Elena; Lugauskas, Albinas; Krunks, Malle; Oja Acik, Ilona; Jasulaitiene, Vitalija; Saduikis, Gintautas Synthetic metals 2010 / 9/10, p. 906-910 : ill <https://www.sciencedirect.com/science/article/abs/pii/S0379677910000652>

Interaction of fungus with titanium oxide surface

Binauskiene, E.; Lugauskas, Albinas; **Krunks, Malle; Oja Acik, Ilona**; Jasulaitiene, Vitalija; Šaduikis, G. 9th National Lithuanian Conference : Vilnius, October 16, 2009 2009 / p. 88

Intermediate compounds in formation of copper sulfides by spray pyrolysis

Krunks, Malle; Mellikov, Enn; Bijakina, Olga Proceedings of the Estonian Academy of Sciences. Engineering 1996 / 1, p. 98-106: ill

Intervjuu EV teaduspreemia laureaadi Malle Krunksiga

Krunks, Malle; Ummelas, Mart Mente et Manu 2009 / 20. märts, lk. 3 : fot. ; 3. aprill, lk. 1, 2 : fot
https://www.ester.ee/record=b1242496*est

Investigation of sprayed thin films on glass substrates by X-ray microanalysis

Mikli, Valdek; Krunks, Malle Abstracts of International Conference on X-ray Optics and Microanalysis 2001 / p. 117

Inx(OH)ySz as recombination barrier in TiO2/inorganic absorber heterojunctions

Wienke, J.; **Krunks, Malle**; Lenzmann, F. Semiconductor science and technology 2003 / p. 876-880 : ill
<https://iopscience.iop.org/article/10.1088/0268-1242/18/9/311>

Kaadmiumi, tsingi ja vase kloriidide tiokarbamiidsete ühendite termiline lagunemine

Krunks, Malle; Liiders, M.; Leskelä, T.; Niinistö, L. XXVI Eesti keemiapäevad : teaduskonverentsi ettekannete referaadid = 26th Estonian Chemistry Days : abstracts of scientific conference 2000 / lk. 67

Keemia- ja materjalitehnoloogia teaduskond

Kaps, Tiit; Mölder, Leevi; Christjanson, Peep; Mellikov, Enn; Krunks, Malle; Munter, Rein; Uus, Endel; Tearo, Eduard; Kuusik, Rein, keemik; Kreen, Malle; Viikna, Anti; Soone, Jüri Leiutajaid ja leiutisi Tallinna Tehnikaülikoolis 1922-2007 2008 / lk. 48-71 : ill https://www.ester.ee/record=b2412718*est

Keemiliselt pihustatud CuInS₂ kiled siledatel ja poorsetel elektroodidel

Kijatkina, Olga; Krunks, Malle; Mere, Arvo XXVIII Eesti keemiapäevad : teaduskonverentsi ettekannete teesid = 28th Estonian Chemistry Days : abstracts of scientific conference 2002 / lk. 55

Keemiliselt pihustatud CuInS₂ õhukeste kilede struktuursed ja optilised omadused

Krunks, Malle; Bijakina, Olga; Bender, Villem; Mikli, Valdek XXIII Eesti keemiapäevad : teaduskonverentsi ettekannete referaadid 1997 / lk. 57

Keemilistel meetoditel sadestatud õhukesed kiled päikeseenergeetikale

Krunks, Malle; Oja, Ilona; Dedova, Tatjana; Mere, Arvo; Katerski, Atanas; Hiie, Jaan XXIX Eesti keemiapäevad : teaduskonverentsi ettekannete teesid = 29th Estonian Chemistry Days : abstracts of scientific conference 2005 / lk. 47

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> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Low-cost plasmonic solar cells prepared by chemical spray pyrolysis

Kärber, Erki; Katerski, Atanas; Oja Acik, Ilona; Mikli, Valdek; Mere, Arvo; Sildos, Ilmo; Krunks, Malle The Beilstein journal of nanotechnology 2014 / p. 2398-2402 : ill <https://doi.org/10.3762/bjnano.5.249> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Luminescent materials based on thin metal oxide films doped with rare Earth ions

Kanarjov, P.; Reedo, Valter; **Oja Acik, Ilona**; Matisen, L.; Vorobjov, A.; Kiisk, Valter; **Krunks, Malle**; Sildos, Ilmo Physics of the solid state 2008 / 9, Proceedings of the XIII Feofilov Symposium "Spectroscopy of Crystals Doped by Rare-Earth and Transition-Metal Ions" (Irkutsk, July 9-13, 2007). p. 1727-1730 : ill <https://link.springer.com/article/10.1134/S1063783408090278>

Läbipaistvate ja elektrit juhtivate ZnO kilede valmistamine keemilise pihustamise meetodil

Vent, Merike; Kärber, Erki; Volobujeva, Olga; Krunks, Malle XXXI Eesti keemiapäevad : [28. aprill 2010, Tallinn] : teaduskonverentsi teesid = 31st Estonian Chemistry Days : abstracts of scientific conference 2010 / lk. 82

Maailmateadus Kopli liinidel : Tehnikaülikooli teadlased otsivad võimalust, kuidas päikesest odavamalt elektrit teha : [töörühm: Enn Mellikov (juht), Malle Krunks, Mare Altosaar, Jüri Krustok ja Vello Valdna oma uurimistööst]

Mellikov, Enn; Krunks, Malle; Altosaar, Mare; Krustok, Jüri; Valdna, Vello; Kändler, Tiit Eesti Päevaleht 1998 / 14. jaan., lk. 10 : ill., fot

Malle Krunks : kõige uhkem olen järelkasvu üle

Krunks, Malle Mente et Manu 2018 / lk. 12-17 : fot https://www.ttu.ee/ttu-uudised/ajaleht-mente-et-manu/mente-et-manu/http://www.ester.ee/record=b1242496*est https://artiklid.elnet.ee/record=b2836021*est

Materials and technologies for photovoltaic applications from Estonia

Mellikov, Enn; Altosaar, Mare; Kauk, Marit; Krustok, Jüri; Krunks, Malle; Varema, Tiit The Fourth International Conference on Advanced Optical Materials and Devices : (AOMD-4) : Tartu, Estonia, July 6-9, 2004 : abstracts 2004 / p. 45
https://www.researchgate.net/publication/252219854_Materials_and_technologies_for_photovoltaic_applications_from_Estonia

Materials and technologies for photovoltaic applications from Estonia

Mellikov, Enn; Altosaar, Mare; Bereznev, Sergei; Kauk, Marit; Kois, Julia; Krustok, Jüri; Krunks, Malle; Varema, Tiit Proceedings of SPIE 2005 / Optical materials and applications, p. 59460X-1 - 59460X-9 : ill https://www.researchgate.net/profile/Mare-Altosaar/publication/252219854_Materials_and_technologies_for_photovoltaic_applications_from_Estonia/links/54e5e6520cf2cd2e028b39ca/Materials-and-technologies-for-photovoltaic-applications-from-Estonia.pdf

Metal complexes as precursors for thin films deposited by chemical spray pyrolysis

Krunks, Malle ESTAC-11 : the 11th European Symposium on Thermal Analysis and Calorimetry : Dipoli Congress Center, Espoo, Finland, August 17-21, 2014 : abstracts 2014 / p. 256

Metal sulfide thin films by chemical spray pyrolysis

Krunks, Malle; Mellikov, Enn Proceedings of SPIE 2001 / p. 60-65

Metal sulfide thin films by chemical spray pyrolysis

Krunks, Malle; Mellikov, Enn Abstracts of International Conference Advanced Optical Materials and Devices 2000 / p. 37

Modification of light absorption in thin CuInS₂ films by sprayed Au nanoparticles

Katerski, Atanas; Kärber, Erki; Oja Acik, Ilona; Dolgov, Leonid; Mere, Arvo; Sildos, Ilmo; Mikli, Valdek; Krunks, Malle Nanoscale research letters 2014 / p. 1-6 : ill <https://doi.org/10.1186/1556-276X-9-494> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Modification of light absorption in thin CuInS₂ films by sprayed gold nanoparticles

Mere, Arvo; Katerski, Atanas; Oja Acik, Ilona; Dolgov, Leonid; Sildos, Ilmo; Krunks, Malle NANOSMAT Conference, 22-25 September 2013, Granada, Spain : abstracts book 2013

Monograin layer solar cells

Altosaar, Mare; Jagomägi, Andri; Kauk, Marit; Krunks, Malle; Krustok, Jüri; Mellikov, Enn; Raudoja, Jaan; Varema, Tiit E-MRS Spring Meeting 2002 : June 18-21, 2002. Symposium B, Thin Film Chalcogenide Photovoltaic Materials 2002 / p. B-29

Monograin layer solar cells

Altosaar, Mare; Jagomägi, Andri; Kauk, Marit; Krunks, Malle; Krustok, Jüri; Mellikov, Enn; Raudoja, Jaan; Varema, Tiit Thin solid films 2003 / p. 466-469 : ill

Monoterilised pooljuhtpulbrid päikeseenergeetikale = Monograin semiconductor powders for solar energetics

Hiie, Jaan; Altosaar, Mare; Krunks, Malle; Mellikov, Enn XVII Eesti keemiapäevad : teaduskonverentsi ettekannete referaadid = 17th Estonian Chemistry Days : abstracts of scientific conference 1996 / lk. 39-40 https://www.ester.ee/record=b1070511*est

Multiple secondary interaction arrangement in the crystal structure of cis-dichlorobis(thiourea-S)-zinc(II)

Bombicz, Petra; Madarasz, Janos; **Krunks, Malle**; Niinistö, Lauri; Pokol, György Journal of coordination chemistry 2007 / 4, p. 457-464 <https://www.tandfonline.com/doi/abs/10.1080/00958970600873604>

Multiple secondary interaction arrangement in the crystal structure of cis-dichlorobis(thiourea-S)-zinc(II)

Bombicz, Petra; Madarasz, Janos; **Krunks, Malle**; Niinistö, Lauri; Pokol, György Journal of coordination chemistry 2006 / [8] p <https://www.tandfonline.com/doi/full/10.1080/00958970600873604>

Nanocrystalline thin films by chemical methods

Krunks, Malle Nanopowders, Nanostuctured Materials and Coatings : Network for Nanostructured Materials of ACC : March 17, 2005, Tallinn, Estonia : book of abstracts 2005 / p. 5-6

Nanostructured layers of ZnS obtained by spray pyrolysis

Dedova, Tatjana; Gromõko, Inga; Mikli, Valdek; Volobujeva, Olga; Utt, Kathriin; Sildos, Ilmo; Mere, Arvo; Krunks, Malle E-MRS 2013 Spring Meeting. Symposium P, Functional nanowires : synthesis, characterization and applications : poster session II 2013 / p. 15

Nanostructured solar cell based on spray pyrolysis deposited ZnO nanorod array

Krunks, Malle; Katerski, Atanas; Dedova, Tatjana; Oja Acik, Ilona; Mere, Arvo Solar energy materials & solar cells 2008 / p. 1016-1019 : ill <https://www.sciencedirect.com/science/article/pii/S0927024808000871>

Nanostructured solar cell by spray pyrolysis : effect of titania barrier layer on the cell performance

Oja Acik, Ilona; Katerski, Atanas; Mere, Arvo; Aarik, Jaan; Aidla, Aleks; Dedova, Tatjana; Krunks, Malle Thin solid films 2009 / p. 2443-2447 : ill <https://doi.org/10.1016/j.tsf.2008.11.018>

Nanostructured solar cells on ZnO nanorods by chemical spray

Krunks, Malle Book of Abstracts of 2nd Semiconductor Sensitized Solar Cells Conference : September 18th-20th, 2011, Mallorca, Spain 2011 / p. A2.4

Nanostructured thin films by wet chemical methods

Krunks, Malle International Conference : Advances in Nanostructured Materials, Processing - Microstructure - Properties : NANOVED 2006 - NENAMAT : May 14-17, 2006, Stara Lesna, Slovak Republic : book of abstracts 2006 / p. 57

Nature of the native deep localized defect recombination centers in the chalcopyrite and orthorhombic AgInS₂

Krustok, Jüri; Raudoja, Jaan; Krunks, Malle; Mändar, H.; Collan, Heikki Journal of applied physics 2000 / 1, p. 205-209 : ill <https://pubs.aip.org/aip/jap/article/88/1/205/486608/Nature-of-the-native-deep-localized-defect>

New concepts and materials for sustainable photovoltaics

Krunks, Malle SustainChem2011 : International Conference on Materials and Technologies for Green Chemistry jointly with Workshop of COST Action CM0903 (UBIOCHEM-II) : September 5-9, 2011, Tallinn, Estonia : abstract book and program 2011 / p. 24

Nickel oxide films by chemical spray : effect of deposition temperature and solvent type on structural, optical, and surface properties

Chen, Zengjun; Dedova, Tatjana; Oja Acik, Ilona; Danilson, Mati; Krunks, Malle Applied surface science 2021 / art. 149118 <https://doi.org/10.1016/j.apsusc.2021.149118> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

NiO thin films deposited by chemical spray pyrolysis

Soon, Jaanika; Krunks, Malle; Mikli, Valdek; Unt, Tarmo; Mere, Arvo NANOSMAT Conference, 22-25 September 2013, Granada, Spain : abstracts book 2013

Niobium doped TiO₂ films by chemical spray pyrolysis [Online resource]

Dündar, Ibrahim; Oja Acik, Ilona; Mere, Arvo; Katerski, Atanas; Krunks, Malle; Mikli, Valdek Tartu Ülikooli ASTRA projekt PER ASPERA : Funktsionaalsed materjalid ja tehnoloogiad : [7-8 märts 2017, Tartu : teesid] 2017 / [1] p <http://fntdk.ut.ee/teesid/>

Niobium doped TiO₂ layers by chemical spray pyrolysis

Dündar, Ibrahim; Oja Acik, Ilona; Mere, Arvo; Katerski, Atanas; Krunks, Malle; Mikli, Valdek Proceedings of 13th International Conference of Young Scientists on Energy Issues : CYSENI 2016 : May 26-27 2016, Kaunas, Lithuania 2016 / p. VII-241 - VII-250

Noble metal nanoparticles for improvement of fluorescent and photovoltaic materials

Dolgov, Leonid; Oja Acik, Ilona; Mere, Arvo; Krunks, Malle; Mikli, Valdek The international summer school "Nanotechnology: from fundamental research to innovations" and International research and practice conference "Nanotechnology and nanomaterials" (NANO-2013), 25 August-1 September, 2013, Bukovel, Ukraine : book of abstracts 2013 / p. 352

A novel deposition method to grow ZnO nanorods : spray pyrolysis

Dedova, Tatjana; Krunks, Malle; Grossberg, Maarja; Volobujeva, Olga; Oja Acik, Ilona Superlattices and microstructures 2007 / p. 444-450 : ill

Novel materials for future PV technologies [Online resource]

Krunks, Malle International Conference "Functional Materials and Nanotechnologies 2017" : Tartu, Estonia in April, 24-27, 2017 : book of abstracts 2017 / p. 36 http://www.ester.ee/record=b4668793*est

Optical and structural properties of TiO₂ thin films by chemical spray

Oyekoya, G.; Oja Acik, Ilona; Krunks, Malle Proceedings of CYSENI 2013 : the 10th Annual Conference of Young Scientists on Energy Issues, May 29-31, 2013, Kaunas, Lithuania 2013 / p. 464-471

Optical properties of sprayed ZnO thin films

Unt, Tarmo; Kriisa, Merike; Mere, Arvo; Krunks, Malle Proceedings of CYSENI 2013 : the 10th Annual Conference of Young Scientists on Energy Issues, May 29-31, 2013, Kaunas, Lithuania 2013 / p. 482-489

Photocatalytic degradation of different VOCs in the gas-phase over TiO₂ thin films prepared by ultrasonic spray pyrolysis

Dundar, Ibrahim; Kritševskaja, Marina; Katerski, Atanas; Krunks, Malle; Oja Acik, Ilona Catalysts 2019 / art. 915 ; 18 p. : ill <https://doi.org/10.3390/catal9110915> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Photocatalytic oxidation of VOCs AS individual air pollutants and in mixtures on the TiO₂ thin films

Sydorenko, Jekaterina; Mere, Arvo; Krunks, Malle; Kritševskaja, Marina; Oja Acik, Ilona Graduate School of Functional

Photocatalytic TiO₂ thin films by ultrasonic spray pyrolysis for air purification

Dündar, Ibrahim; Kritševskaja, Marina; Katerski, Atanas; Krunks, Malle; Oja Acik, Ilona GSFMT Scientific Conference 2020 : Tallinn, February 4-5, 2020 : abstracts 2020 / p. 21 <http://fntdk.ut.ee/wp-content/uploads/2020/01/GSFMT2020.pdf>

Photoconductive CdS and CdS_xSe_{1-x} and CdSexTe_{1-x} powders and layers for microwave optoelectronic antennas

Hiie, Jaan; Altosaar, Mare; Krunks, Malle; Mellikov, Enn International Conference Advanced Optical Materials and Devices, Riga, 1996 1996 / p. 195

Photoconductive CdS and CdS_xSe_{1-x} layers for microwave range

Hiie, Jaan; Krunks, Malle; Mellikov, Enn; Veel, Ene 9th international symposium of the Technical Committee on Photon-Detectors, International Measurement Confederation : Visegrád, Hungary, 9 - 12 September, 1980 : abstracts 1980 / p. 12-13

Photoconductive ternary CdS_xSe_{1-x} and CdSexTe_{1-x} powders and layers for microwave detectors

Hiie, Jaan; Altosaar, Mare; Krunks, Malle; Mellikov, Enn Book of Abstracts of the 11th International Conference on Ternary & Multinary Compounds, 8-12 September 1997, Salford, England 1997 / p. 1.44

Photoelectrochemistry of CdSexTe_{1-x}

Wirts, C.; **Altosaar, Mare; Krunks, Malle; Varema, Tiit; Mellikov, Enn**; Meissner, Dieter Proceedings of International Conference QUANTSOL'99 : Wildhaus, Switzerland, 1999 1999 / p. 15-18

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 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

Pihustatud CuInS₂ õhukeste kilede keemiline ja faasikoostis

Kijatkina, Olga; Rebane, Helen; Oja, Ilona; Krunks, Malle; Mikli, Valdek; Mere, Arvo XXVII Eesti keemiapäevad : teaduskonverentsi ettekannete referaadid = 27th Estonian Chemistry Days : abstracts of scientific conference 2001 / lk. 52

Pihustatud vaskindiumdisulfiid kilede keemiline koostis

Katerski, Atanas; Krunks, Malle XXXII Eesti Keemiapäevad : teaduskonverentsi teesid 2011 / lk. 39

Pihustuspürolüüsi meetodil sadestatud CuInS₂ kilede lähteainete termiline lagunemine

Mere, Arvo; Oja Acik, Ilona; Otto, Kairi; Krunks, Malle; Tõnsuaadu, Kaia XXXIII Eesti Keemiapäevad : teaduskonverentsi teesid 2013 / lk. 46

Pihustuspürolüüsi meetodil vaserikastest lahustest valmistatud CuInS₂ kilede omadused

Rebane, Helen; Kijatkina, Olga; Mikli, Valdek; Leomar, Hedi; Krunks, Malle XXVIII Eesti keemiapäevad : teaduskonverentsi ettekannete teesid = 28th Estonian Chemistry Days : abstracts of scientific conference 2002 / lk. 111

Plasmon resonance effect caused by gold nanoparticles formed on titanium oxide films

Tamm, Aile; **Oja Acik, Ilona; Krunks, Malle; Mere, Arvo** Thin solid films 2016 / p. 449-455 : ill <https://doi.org/10.1016/j.tsf.2016.08.059>
[Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Plasmon-enhanced photocurrent by gold nanoparticles on extremely thin solar cells by chemical spray pyrolysis

Kärber, Erki; Katerski, Atanas; Oja Acik, Ilona; Mere, Arvo; Krunks, Malle Nanotechnology for Next Generation High Efficiency Photovoltaics : Spring International School & Workshop, Mao, Menorca, Balearic Islands (Spain), April 20-24, 2015 : book of abstracts 2015 / [1] p

Plasmonic control of light in thin film solar cell absorbers

Repän, Taavi; **Katerski, Atanas; Oja Acik, Ilona; Kärber, Erki; Mere, Arvo; Mikli, Valdek; Krunks, Malle**; Dolgov, Leonid; Sildos, Ilmo The International Summer School "Nanotechnology : from fundamental research to innovations" and International research and practice conference "Nanotechnology and nanomaterials" (NANO-2014), 23-30 August, 2014, Yaremche-Lviv, Ukraine : book of abstracts 2014 / p. 494

Plasmonic effect of Au NPs on CSS CdS/CdTe solar cell characteristics

Spalatu, Nicolae; Maticiuc, Natalia; Katerski, Atanas; Krunks, Malle; Mikli, Valdek; Hiie, Jaan Science and Applications of Thin Films, SATF 2014 : Cesme, Izmir, Turkey, September 15-19 : abstract book 2014 / p. 371

Plasmonic effect of spray-deposited Au nanoparticles on the performance of CSS CdS/CdTe solar cells

Spalatu, Nicolae; Hiie, Jaan; Maticiuc, Natalia; Krunks, Malle; Katerski, Atanas; Mikli, Valdek; Sildos, Ilmo Applied surface science 2015 / p. 69-73 : ill <https://doi.org/10.1016/j.apsusc.2015.04.065> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Plasmonic enhancement of light absorption in CuInS₂ layer doped by gold nanoparticles

Repän, Taavi; Katerski, Atanas; Oja Acik, Ilona; Kärber, Erki; Mere, Arvo; Mikli, Valdek; Krunks, Malle; Dolgov, Leonid; Sildos, Ilmo META'14 - Singapore : The 5th International Conference on Metamaterials, Photonic Crystals and Plasmonics : book of abstracts 2014

Plasmonic modification of CdTe thin films by gold nanoparticles : methods, difficulties and solutions

Maticiuc, Natalia; Spalatu, Nicolae; Katerski, Atanas; Hiie, Jaan; Mikli, Valdek; Krunks, Malle; Dolgov, Leonid; Sildos, Ilmo Microelectronic engineering 2014 / p. 173-178 : ill <https://doi.org/10.1016/j.mee.2014.07.016> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Plasmonic TiO₂:Au composite layers deposited in situ by chemical spray pyrolysis

Oja Acik, Ilona; Oyekoya, Gboyega Nathaniel; Mere, Arvo; Loot, Ardi; Dolgov, Leonid; **Mikli, Valdek; Krunks, Malle;** Sildos, Ilmo Surface and coatings technology 2015 / p. 27-31 : ill <https://doi.org/10.1016/j.surfcoat.2015.01.036> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Post deposition annealing effect on properties of CdS films and its impact on CdS/Sb₂Se₃ solar cells performance

Gopi, Sajeesh Vadakkedath; Spalatu, Nicolae; Basnayaka, Madhawa; Krautmann, Robert; Katerski, Atanas; Josepson, Raavo; Grzibovskis, Raitis; Vembris, Aivars; **Krunks, Malle; Oja Acik, Ilona** Frontiers in Energy Research 2023 / art. 1162576, 12 p <https://doi.org/10.3389/fenrg.2023.1162576> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

A post-deposition annealing approach for organic residues control in TiO₂ and its impact on Sb₂Se₃/TiO₂ device performance

Koltsov, Mykhailo; Krautmann, Robert; Katerski, Atanas; Maticiuc, Natalia; **Krunks, Malle; Oja Acik, Ilona; Spalatu, Nicolae** Faraday Discussions 2022 / p. 273-286 <https://doi.org/10.1039/D2FD00064D> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Post-deposition processing for tuning the properties of Sb₂Se₃ thin films absorber layer grown by close-spaced sublimation

Krautmann, Robert; Spalatu, Nicolae; Hiie, Jaan; Katerski, Atanas; Oja Acik, Ilona; Krunks, Malle GSFMT Scientific Conference 2020 : Tallinn, February 4-5, 2020 : abstracts 2020 / p. 47 <http://fntdk.ut.ee/wp-content/uploads/2020/01/GSFMT2020.pdf>

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

Spalatu, Nicolae; Hiie, Jaan; Kaupmees, Reelika; Volobujeva, Olga; Krustok, Jüri; Oja Acik, Ilona; Krunks, Malle ACS applied materials & interfaces 2019 / p. 17539-17554 : ill <https://doi.org/10.1021/acsami.9b03213> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Post-deposition thermal treatment of sprayed SnS films

Polivtseva, Svetlana; Katerski, Atanas; Kärber, Erki; Oja Acik, Ilona; Mere, Arvo; Mikli, Valdek; Krunks, Malle Thin solid films 2017 / p. 179-184 : ill <https://doi.org/10.1016/j.tsf.2017.01.014> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Post-deposition thermal treatment of sprayed SnS films [Online resource]

Polivtseva, Svetlana; Katerski, Atanas; Kärber, Erki; Oja Acik, Ilona; Mere, Arvo; Mikli, Valdek; Krunks, Malle Tartu Ülikooli ASTRA projekt PER ASPERA : Funktsionaalsed materjalid ja tehnoloogiad : [7-8 märts 2017, Tartu : teesid] 2017 / [1] p <http://fntdk.ut.ee/teesid/>

Preparation of shape and size-controlled zinc oxide nanostructures by chemical spray pyrolysis technique

Dedova, Tatjana; Krunks, Malle; Mere, Arvo; Klauson, Jelena; Volobujeva, Olga Materials Research Society symposium proceedings 2007 / p. 0957-K10-26 [7 p.]

Properties of NiO thin film deposited spray pyrolysis

Chen, Zengjun; Dedova, Tatjana; Oja Acik, Ilona; Krunks, Malle GSFMT Scientific Conference 2020 : Tallinn, February 4-5, 2020 : abstracts 2020 / p. 18 <http://fntdk.ut.ee/wp-content/uploads/2020/01/GSFMT2020.pdf>

Properties of NiO thin films prepared by chemical spray pyrolysis

Soon, Jaanika; Krunks, Malle; Mikli, Valdek Proceedings of CYSENI 2013 : the 10th Annual Conference of Young Scientists on Energy Issues, May 29-31, 2013, Kaunas, Lithuania 2013 / p. 510-518

Properties of ZnO-nanorod/In_{0.5}Sn_{0.5}/CuInSn solar cell and the constituent layers deposited by chemical spray method = Keemilise pihustuse meetodil sadestatud ZnO-nanovarras/In_{0.5}Sn_{0.5}/CuInSn päikesepatarei ja selle koostisosade omadused
Kärber, Erki 2014 https://www.ester.ee/record=b3073760*est

Properties of the CdCl₂ air-annealed CSS CdTe thin films

Spalatu, Nicolae; Hiie, Jaan; Valdna, Vello; Maticiu, Natalia; Krunks, Malle; Mikli, Valdek TÜ ja TTÜ doktorikool
"Funktsionaalsed materjalid ja tehnoloogiad" : 04.-05. märts 2014, Tartu 2014 / [1] p

Properties of the CdCl₂ air-annealed CSS CdTe thin films

Spalatu, Nicolae; Hiie, Jaan; Valdna, Vello; Caraman, Mihail; Maticiu, Natalia; Mikli, Valdek; Potlog, Tamara; Krunks, Malle; Lugh, Vanni Energy procedia 2014 / p. 85-95 : ill <https://doi.org/10.1016/j.egypro.2013.12.013> [Conference proceedings at Scopus](#)
[Article at Scopus](#) [Article at WOS](#)

Properties of TiO₂ films prepared by spray pyrolysis method

Oja, Ilona; Mere, Arvo; Krunks, Malle; Solterbeck, Claus-Henning; Es-Souni, Mohammed E-MRS Fall Meeting. Symposim F 2003 / [1] p

Properties of TiO₂ films prepared by the spray pyrolysis method

Oja, Ilona; Mere, Arvo; Krunks, Malle; Solterbeck, C.-H.; Es-Souni, M. Solid state phenomena 2004 / p. 259-262 : ill

Päikeseenergeetika materjalid

Melikov, Enn; Altosaar, Mare; Bereznev, Sergei; Kauk, Marit; Krunks, Malle; Krustok, Jüri; Mere, Arvo; Raudoja, Jaan; Varema, Tiit; Öpik, Andres Teaduse uued suunad : materjaliteadus : Eesti Teaduste Akadeemia seminari materjalid : 23.10.2003 2004 / lk. 11-21 : ill

Päikeseenergeetika materjalide alased uuringud Tallinna Tehnikaülikoolis

Melikov, Enn; Altosaar, Mare; Varema, Tiit; Krunks, Malle Taastuvate energiaallikate uurimine ja kasutamine : esimese konverentsi kogumik : [4. november 1999, Tartu] = Investigation and Usage of Renewable Energy Sources : first conference proceedings : [4 November 1999, Tartu] 2000 / lk. 26-31

Päikeseenergeetika materjalide uuringud Eestis

Kauk-Kuusik, Marit; Grossberg, Maarja; Oja Acik, Ilona; Krunks, Malle Teadusmõte Eestis (X). Tehnikateadused. 3 : [artiklikogumik] 2019 / lk. 59-65 : ill., fot https://www.ester.ee/record=b5208765*est

Raman spectroscopic study of In₂S₃ films prepared by spray pyrolysis

Kärber, Erki; Otto, Kairi; Katerski, Atanas; Mere, Arvo; Krunks, Malle Materials science in semiconductor processing 2014 / p. 137-142 : ill <https://doi.org/10.1016/j.mssp.2013.10.007> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Research in solar cell technologies at Tallinn University of Technology

Melikov, Enn; Altosaar, Mare; Krunks, Malle; Krustok, Jüri; Varema, Tiit; Volobujeva, Olga; Grossberg, Maarja; Kaupmees, Liina; Dedova, Tatjana; Timmo, Kristi; Ernits, Kaia; Kois, Julia; Oja Acik, Ilona; Danilson, Mati; Bereznev, Sergei Thin solid films 2008 / 20, p. 7125-7134 : ill

Research on materials for solar cells at Tallinn Technical University

Krunks, Malle Materials, abstracts of Sustainable Community Development Baltic Meeting Point, Uppsala, 1998 1998 / p. 4

Sb₂S₃ grown by ultrasonic spray pyrolysis and its application in a hybrid solar cell

Kärber, Erki; Katerski, Atanas; Oja Acik, Ilona; Mere, Arvo; Mikli, Valdek; Krunks, Malle Beilstein journal of nanotechnology 2016 / p. 1662-1673 : ill <http://dx.doi.org/10.3762/bjnano.7.158>

Sb₂S₃ solar cells with a cost-effective and dopant-free fluorene-based enamine as a hole transport material

Juneja, Nimish; Mandati, Sreekanth; Katerski, Atanas; Spalatu, Nicolae; Daskeviciute-Geguziene, Sarune; Vembris, Aivars; Karazhanov, Smagul; Getautis, Vytautas; Krunks, Malle; Oja Acik, Ilona Sustainable Energy & Fuels 2022 / p. 3220-3229
<https://doi.org/10.1039/D2SE00356B> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Sb₂S₃ solar cells with TiO₂ electron transporting layers synthesized by ALD and USP methods

Dedova, Tatjana; Krautmann, Robert; Rusu, Marin; Katerski, Atanas; Krunks, Malle; Unold, Thomas; Spalatu, Nicolae; Mere, Arvo; Sydorenko, Jekaterina; Sibinski, Maciej; Oja Acik, Ilona Solar energy materials and solar cells 2025 / art. 113279
<https://doi.org/10.1016/j.solmat.2024.113279>

Sb₂S₃ thin film solar cells by ultrasonic spray pyrolysis

Eensalu, Jako Siim; Katerski, Atanas; Kärber, Erki; Oja Acik, Ilona; Krunks, Malle GSFMT Scientific Conference 2020 : Tallinn, February 4-5, 2020 : abstracts 2020 / p. 22 <http://fntdk.ut.ee/wp-content/uploads/2020/01/GSFMT2020.pdf>

Sb₂S₃ thin films by ultrasonic spray pyrolysis of antimony ethyl xanthate

Eensalu, Jako Siim; Tõnsuaadu, Kaia; Oja Acik, Ilona; Krunks, Malle Materials science in semiconductor processing 2022 / art. 106209 : ill <https://doi.org/10.1016/j.mssp.2021.106209> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Sb₂S₃ 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](#)

Sb₂S₃ õhukesed absorberkihid pool-läbipaistvatele päikesepatareidele

Oja Acik, Ilona; Eensalu, Jako Siim; Katerski, Atanas; Krunks, Malle XXXIV Eesti keemiapäevad : 100. aastapäeva teaduskonverentsi teesid 2019 / lk. 32 https://www.ester.ee/record=b1580289*est

Screening and optimization of processing temperature for Sb₂Se₃ thin film growth protocol : interrelation between grain structure, interface intermixing and solar cell performance

Spalatu, Nicolae; Krautmann, Robert; Katerski, Atanas; Kärber, Erki; Josepson, Raavo; Hiie, Jaan; Oja Acik, Ilona; Krunks, Malle Solar energy materials and solar cells 2021 / art. 111045, 13 p. : ill <https://doi.org/10.1016/j.solmat.2021.111045> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Semitransparent Sb₂S₃ thin film solar cells by ultrasonic spray pyrolysis for use in solar windows

Eensalu, Jako Siim; Katerski, Atanas; Kärber, Erki; Weinhardt, Lothar; Blum, Monika; Heske, Clemens; Oja Acik, Ilona; Krunks, Malle Beilstein journal of nanotechnology 2019 / p. 2396-2409 <https://doi.org/10.3762/bjnano.10.230> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Solar cell on nanostructured ZnO by spray pyrolysis deposition

Katerski, Atanas; Dedova, Tatjana; Oja Acik, Ilona; Mere, Arvo; Krunks, Malle 2-nd International Conference on surfaces, Coatings and Nanostructured Materials (NANOSMAT 2007) : 9-11 July 2007, Alvor, Algarve, Portugal : abstracts book 2007 / p. 256

Solar cell structures based on sprayed CuInS₂ absorber layer

Mere, Arvo; Krunks, Malle; Kijatkina, Olga Proceedings of the 20th Nordic Semiconductor Meeting : Optoelectronics Research Center, Tampere University of Technology, Tampere, Finland, August 25-27, 2003 2004

Solar cell structures by non-vacuum techniques based on sprayed CuInS₂ absorber layers

Mere, Arvo; Katerski, M.; Kijatkina, Olga; Krunks, Malle 19th European Photovoltaic Solar Energy Conference : 7-11 June 2004, Paris, France 2004 / p. 1973-1976 : ill

Sol-gel deposition of titanium dioxide films = Titaanoksiidi kiled sool-geeli meetodil

Oja Acik, Ilona 2007

Solution processed high-K oxides for application as gate dielectric layer in thin film transistor

Oluwabi, Abayomi Titilope; Katerski, Atanas; Mere, Arvo; Krunks, Malle; Oja Acik, Ilona GSFMT Scientific Conference 2020 : Tallinn, February 4-5, 2020 : abstracts 2020 / p. 67 : ill <http://fmtdk.ut.ee/wp-content/uploads/2020/01/GSFMT2020.p>

Spray pyrolysis deposition and characterization of highly c-axis oriented hexagonal ZnS nanorod crystals

Dedova, Tatjana; Gromõko, Inga; Krunks, Malle; Mikli, Valdek; Grossberg, Maarja; Sildos, Ilmo; Utt, Kathriin; Vessart, Risto; Unt, Tarmo Crystal research and technology 2015 / p. 85-92 : ill <https://doi.org/10.1002/crat.201400172> [Conference proceedings at Scopus](#) [Article at Scopus](#) [Conference proceedings at WOS](#) [Article at WOS](#)

Spray pyrolysis deposition of indium sulphide thin films

Otto, Kairi; Katerski, Atanas; Mere, Arvo; Volobujeva, Olga; Krunks, Malle Thin solid films 2011 / p. 3055-3060 : ill

Spray pyrolysis deposition of nanostructured zinc oxide films

Krunks, Malle; Dedova, Tatjana; Oja, Ilona International Conference on Metallurgical Coatings and Thin Films : San Diego, California, May 1-5, 2006 : program and abstracts 2006 / p. 37

Spray pyrolysis deposition of SnxSy thin films

Polivtseva, Svetlana; Oja Acik, Ilona; Katerski, Atanas; Mere, Arvo; Mikli, Valdek; Krunks, Malle Energy procedia 2014 / p. 156-165 : ill <https://doi.org/10.1016/j.egypro.2014.12.358> [Conference proceedings at Scopus](#) [Article at Scopus](#) [Article at WOS](#)

Spray pyrolysis deposition of zinc oxide nanostructured layers

Krunks, Malle; Dedova, Tatjana; Oja Acik, Ilona Thin solid films 2006 / 3, p. 1157-1160 : ill <https://www.sciencedirect.com/science/article/pii/S0040609006009540>

Spray pyrolysis deposition of tin sulfide thin films

Polivtseva, Svetlana; Oja Acik, Ilona; Mikli, Valdek; Krunks, Malle TÜ ja TTÜ doktorikool "Funktsionaalsed materjalid ja tehnoloogiad" : 04.-05. märts 2014, Tartu 2014 / [1] p

Sprayed CuInS₂ films grown under Cu-rich conditions as absorbers for solar cells

Krunks, Malle; Kijatkina, Olga; Mere, Arvo; Varema, Tiit; Oja, Ilona; Mikli, Valdek Solar energy materials & solar cells 2005 / p. 207-214 : ill

Sprayed CuInS₂ thin films for solar cells : the effect of solution composition and post-deposition treatments

Krunks, Malle; Bijakina, Olga; Mikli, Valdek; Rebane, Helen; Varema, Tiit; Altosaar, Mare; Mellikov, Enn Solar cells and solar cell materials 2001 / 1, p. 93-98

Sprayed CuInS₂ thin films for solar cells : the effect of solution composition and post-deposition treatments

Krunks, Malle; Bijakina, Olga; Mikli, Valdek; Rebane, Helen; Varema, Tiit; Altosaar, Mare; Mellikov, Enn 11th International Photovoltaic Science and Engineering Conference : Sept. 20-24/1999, Hokkaido, Japan : technical digest 1999 / p. 845-846: ill
<https://www.sciencedirect.com/science/article/pii/S0927024800003810>

Spray-pyrolysis synthesised TiO₂ thin films for photocatalytic air treatment from volatile organic compounds

Sydorenko, Jekaterina; Krunks, Malle; Mere, Arvo; Krichevskaya, Marina; Oja Acik, Ilona Proceedings 2023 / art. 37
<https://doi.org/10.3390/proceedings2023092037>

Standartization of composition of A₂B₆ materials

Mellikov, Enn; Krunks, Malle Surface and coatings technology 1993 / p. 688-690 [https://doi.org/10.1016/0257-8972\(93\)90320-N](https://doi.org/10.1016/0257-8972(93)90320-N)

Structural and electrical characterisation of high-k ZrO₂ thin films deposited by chemical spray pyrolysis method

Oluwabi, Abayomi Titilope; Oja Acik, Ilona; Katerski, Atanas; Mere, Arvo; Krunks, Malle Thin Solid Films 2018 / p. 129 - 136
<https://doi.org/10.1016/j.tsf.2018.07.035> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Structural and electrical characterization of TiO₂ films grown by spray pyrolysis

Oja, Ilona; Mere, Arvo; Krunks, Malle; Nisumaa, Reet; Solterbeck, C.-H.; Es-Souni, M. Thin solid films 2006 / p. 674-677 : ill
<https://www.sciencedirect.com/science/article/pii/S0040609005025708>

Structural and electrical properties of P-type NiO thin films deposited by spray pyrolysis

Vessart, R.; Unt, Tarmo; Mere, Arvo; Krunks, Malle Proceedings of the 11th International Conference of Young Scientists on Energy Issues : CYSENI 2014 : May 29-30, 2014, Kaunas, Lithuania 2014 / p. VII-290-VII-297

Structural and electrical properties of spray deposited copper indium disulphide films for solar cells =

Pihustussadestatud vaskindiumsulfiidkilede struktuursed ja elektrilised omadused ning rakendus päikesepatareides
Mere, Arvo 2006 https://www.ester.ee/record=b2132571*est

Structural and optical characterization of sprayed ZnS thin films

Dedova, Tatjana; Mere, Arvo; Krunks, Malle; Kijatkina, Olga; Oja, Ilona; Volobujeva, Olga Proceedings of SPIE 2005 / Optical materials and applications, p. 34-40

Structural and optical characterization of sprayed ZnS thin films

Dedova, Tatjana; Kijatkina, Olga; Mere, Arvo; Volobujeva, Olga; Krunks, Malle The Fourth International Conference on Advanced Optical Materials and Devices : (AOMD-4) : Tartu, Estonia, July 6-9, 2004 : abstracts 2004 / p. 38

Structural and optical properties of CuInS₂ thin films prepared by spray pyrolysis

Krunks, Malle; Bijakina, Olga; Bender, Villem; Mikli, Valdek 23rd Estonian Chemistry Days : abstracts of scientific conference 1997 / p. 63

Structural and optical properties of sprayed CuInS₂ films

Krunks, Malle; Bijakina, Olga; Varema, Tiit; Mikli, Valdek; Mellikov, Enn Thin solid films 1999 / p. 125-130: ill

Structural and optoelectronic properties of CdCl₂ activated CdTe thin films modified by multiple thermal annealing

Spalatu, Nicolae; Krunks, Malle; Hiie, Jaan Thin solid films 2017 / p. 106-111 : ill <https://doi.org/10.1016/j.tsf.2016.09.042> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Structure and evolved gas analyses (TG/DTA-MS and TG-FTIR) of mer-trichlorotris(thiourea)-indium(III), a precursor for indium sulfide thin films

Otto, Kairi; Bombicz, Petra; Madarasz, Janos; Oja Acik, Ilona; Krunks, Malle; Pokol, György Journal of thermal analysis and calorimetry 2011 / p. 83-91 <https://link.springer.com/article/10.1007/s10973-011-1524-7>

Structure and thermal behaviour of dichlorobis(thiourea)cadmium(II), a single-source precursor for CdS thin films

Krunks, Malle; Madarasz, Janos; Hiltunen, L.; Mannonen, R.; Niinistö, L.; Mellikov, Enn Acta Chemica Scandinavica 1997 / p. 294-301: ill

Study of spray-CVD deposited Zn(O,S) films on Mo substrates and application in Cu(In, Ga)(S, Se)₂ solar cells as buffer layers

Kriisa, Merike; Fischer, Christian-Herbert; **Krunks, Malle** TÜ ja TTÜ doktorikool "Funktsionaalsed materjalid ja tehnoloogiad" : 04.-05. märts 2014, Tartu 2014 / [1] p

Study of zinc thiocarbamide chloride, a single-source precursor for zinc sulfide thin films by spray pyrolysis

Krunks, Malle; Madarasz, Janos; Leskelä, T.; **Mere, Arvo**; Niinistö, L.; Pokol, György Journal of thermal analysis and calorimetry 2003 / 1/2, ESTAC 8 : proceedings of the 8th European Symposium on Thermal Analysis and Calorimetry : Barcelona, Spain, August 25-29, 2002. Volume 2. ISBN 963-05-8044-6. p. 497-506 : ill <https://link.springer.com/article/10.1023/A:1024561212883>

Study of Zn(O,S) films grown by aerosol assisted chemical vapour deposition and their application as buffer layers in Cu(In,Ga)(S,Se)₂ solar cells

Kriisa, Merike; Saez-Araoz, Rodrigo; **Kärber, Erki**; **Krunks, Malle** Solar energy 2015 / p. 562-568 : ill

<https://doi.org/10.1016/j.solener.2015.02.046> Journal metrics at Scopus Article at Scopus Journal metrics at WOS Article at WOS

Study of ZnO:In, Zn(O,S) and Sb₂SI thin films deposited by aerosol methods = Aerosoolmeetoditel sadestatud ZnO:In, Zn(O,S) ja Sb₂SI õhukeste kilede uurimine

Kriisa, Merike 2017 <https://digi.lib.ttu.ee/i/27676> https://www.ester.ee/record=b4676437*est

Surface analysis of spray deposited copper indium disulfide films

Katerski, Atanas; **Mere, Arvo**; Kazlauskienė, Vida; Miskinis, Juozas; Saar, Agu; Matisen, Leonard; Kikas, Arvo; **Krunks, Malle** Thin solid films 2008 / p. 7110-7115 : ill

Surface plasmon resonance caused by gold nanoparticles formed on sprayed TiO₂ films

Oja Acik, Ilona; Dolgov, Leonid; **Krunks, Malle**; **Mere, Arvo**; **Mikli, Valdek**; Pikker, Siim; Loot, Ardi; Sildos, Ilmo Thin solid films 2014 / p. 144-147 : ill <https://doi.org/10.1016/j.tsf.2013.11.125> Journal metrics at Scopus Article at Scopus Journal metrics at WOS Article at WOS

Surface plasmon resonance in ZnO nanorod arrays caused by gold nanoparticles for solar cell application

Gromōko, Inga; **Oja Acik, Ilona**; **Krunks, Malle**; **Dedova, Tatjana**; **Katerski, Atanas**; **Mere, Arvo**; **Mikli, Valdek**; **Vessart, Risto** Physica status solidi (c) 2015 / p. 1338-1343 : ill <https://doi.org/10.1002/pssc.201510103> Journal metrics at Scopus Article at Scopus Article at WOS

Surface properties of sprayed and electrodeposited ZnO rod layers

Gromōko, Inga; **Krunks, Malle**; **Dedova, Tatjana**; **Katerski, Atanas**; **Klauson, Deniss**; **Oja Acik, Ilona** Applied surface science 2017 / p. 521-528 : ill <https://doi.org/10.1016/j.apsusc.2017.02.065> Journal metrics at Scopus Article at Scopus Journal metrics at WOS Article at WOS

Surface wetting properties of electrodeposited and sprayed ZnO nanorod layers [Online resource]

Gromōko, Inga; **Krunks, Malle**; **Dedova, Tatjana**; **Katerski, Atanas**; **Klauson, Deniss**; **Oja Acik, Ilona** Tartu Ülikooli ASTRA projekt PER ASPERA : Funktsionaalsed materjalid ja tehnoloogiad : [7-8 märts 2017, Tartu : teesid] 2017 / [1] p <http://fntdk.ut.ee/teesid/>

Synthesis control of charge separation at anatase TiO₂ thin films studied by transient surface photovoltage spectroscopy

Dittrich, Thomas; **Sydorenko, Jekaterina**; **Spalatu, Nicolae**; Nickel, Norbert H.; **Mere, Arvo**; **Krunks, Malle**; **Oja Acik, Ilona** ACS applied materials & interfaces 2022 / p. 43163-43170 <https://doi.org/10.1021/acsami.2c09032> Journal metrics at Scopus Article at Scopus Journal metrics at WOS Article at WOS

Synthesis, vibrational spectra and X-ray structures of copper(I) thiourea complexes

Bombicz, Petra; Mutikainen, Ilpo; **Krunks, Malle**; Leskelä, Tuula; Madarasz, Janos; Niinistö, Lauri Inorganica chimica acta 2004 / 2, p. 513-525 <https://www.sciencedirect.com/science/article/pii/S0020169303005152>

Zinc oxide nanorods grown by spray pyrolysis

Krunks, Malle; **Dedova, Tatjana**; **Mere, Arvo**; Aparina, Jelena; **Grossberg, Maarja** The 4th International Workshop on ZnO and Related Materials : University of Gissen, Germany, Oct.3-6, 2006 2006 / p. 170

Zinc oxide nanostructured layers by chemical spray pyrolysis

Dedova, Tatjana; Aparina, Jelena; **Mere, Arvo**; **Volobujeva, Olga**; **Grossberg, Maarja**; **Krunks, Malle** International Conference : Advances in Nanostructured Materials, Processing - Microstructure - Properties : NANOVED 2006 - NENAMAT : May 14-17, 2006, Stara Lesna, Slovak Republic : book of abstracts 2006 / p. 105

Zinc oxide rods on different TCO substrates and seed layers by electrochemical deposition

Gromōko, Inga; **Dedova, Tatjana**; **Krunks, Malle**; **Mikli, Valdek**; **Unt, Tarmo**; **Oja Acik, Ilona**; **Mere, Arvo** Proceedings of the 11th International Conference of Young Scientists on Energy Issues : CYSENI 2014 : May 29-30, 2014, Kaunas, Lithuania 2014 / p.

Zinc oxide thin films by spray pyrolysis

Krunks, Malle; Bijakina, Olga; Mikli, Valdek; Varema, Tiit; Mellikov, Enn 18th Nordic Semiconductor Meeting, Linköping, June 7-10, 1998 : abstracts 1998 / p. H-106

Zinc oxide thin films by spray pyrolysis method

Krunks, Malle; Mellikov, Enn Abstracts of International Conference on Metallurgical Coatings and Thin Films, San Diego, 1995 1995 / p. 135 <https://www.sciencedirect.com/science/article/abs/pii/0040609095068937>

Zinc oxide thin films by spray pyrolysis method

Krunks, Malle; Bijakina, Olga; Mikli, Valdek; Varema, Tiit; Mellikov, Enn Physica scripta 1999 / Proceedings of 18th Nordic Semiconductor Meeting, Linköping, Sweden, June 7-10, 1998, ISBN 91-87308-71-1, p. 209-212: ill

Zinc oxide thin films by spray pyrolysis method for solar cells

Krunks, Malle; Varema, Tiit; Meissner, Dieter Tallinna Tehnikaülikooli Toimetised 1994 / lk. 101-113: ill

Zinc oxide thin films by the spray pyrolysis method

Krunks, Malle; Mellikov, Enn Thin solid films 1995 / p. 33-36: ill

Zirconium doped TiO₂ thin films deposited by chemical spray pyrolysis

Juma, Albert Owino; Oja Acik, Ilona; Oluwabi, Abayomi Titilope; Mere, Arvo; Mikli, Valdek; Danilson, Mati; Krunks, Malle Applied surface science 2016 / p. 539-545 : ill <https://doi.org/10.1016/j.apsusc.2016.06.093> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

ZnO nanorods grown electrochemically on different metal oxide underlays

Gromöko, Inga; Dedova, Tatjana; Krunks, Malle; Söritski, Vitali; Mere, Arvo; Mikli, Valdek; Unt, Tarmo; Oja Acik, Ilona IOP conference series : materials science and engineering 2015 / p. 1-5 : ill <https://doi.org/10.1088/1757-899X/77/1/012012> [Conference proceedings at Scopus](#) [Article at Scopus](#) [Article at WOS](#)

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>

ZnO nanostructured layers by wet chemical deposition methods : growth, surface properties, photocatalytic capability = ZnO nanostruktuursed kihid vedeliksadestuse meetoditel : kasvatamine, pinnaomadused, fotokatalüütiline võimekus

Gromöko, Inga 2018 <https://digi.lib.ttu.ee/29962> https://www.ester.ee/record=b5141465*est

ZnO nanostructures by chemical spray for next generation solar cells

Krunks, Malle; Dedova, Tatjana; Oja Acik, Ilona; Kriisa, Merike; Mikli, Valdek; Katerski, Atanas; Kärber, Erki; Mere, Arvo NEXTGEN NANO PV : book of abstracts 2013 / p. 31-32

ZnO nanostructures by wet chemical deposition methods [Online resource]

Gromöko, Inga; Dedova, Tatjana; Krunks, Malle; Oja Acik, Ilona; Katerski, Atanas; Klauson, Deniss 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 <http://fmdtk.ut.ee/teesid-2018/>

ZnO nanostruktuursed kihid keemilise pihustuspürolüüsi meetodil

Dedova, Tatjana; Annert, Katre; Volobujeva, Olga; Grossberg, Maarja; Oja Acik, Ilona; Krunks, Malle XXXI Eesti keemiapäevad : [28. aprill 2010, Tallinn] : teaduskonverentsi teesid = 31st Estonian Chemistry Days : abstracts of scientific conference 2010 / lk. 25

ZnO thin films as transparent conductive oxides by chemical spray pyrolysis

Vent, Merike; Annert, Katre; Kärber, Erki; Krunks, Malle Proceedings of CYSENI 2010 : the 7th Annual Conference of Young Scientists on Energy Issues : May 27-28, 2010, Kaunas, Lithuania 2010 / p. 399-407

ZnO/NiO heterostructures with enhanced photocatalytic activity obtained by ultrasonic spraying of a NiO shell onto ZnO nanorods

Chen, Zengjun; Dedova, Tatjana; Spalatu, Nicolae; Matciuc, Natalia; Rusu, Marin; Katerski, Atanas; Oja Acik, Ilona; Unold, Thomas; Krunks, Malle Colloids and surfaces A : physicochemical and engineering aspects 2022 / art. 129366 <https://doi.org/10.1016/j.colsurfa.2022.129366> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

ZnO/TiO₂/Sb₂S₃ core-shell nanowire heterostructure for extremely thin absorber solar cells

Parize, Romain; Katerski, Atanas; Gromöko, Inga; Rapenne, Laetitia; Roussel, Hervé; Kärber, Erki; Appert, Estelle; Krunks, Malle; Consonni, Vincent Journal of physical chemistry C 2017 / p. 9672-9680 : ill <https://doi.org/10.1021/acs.jpcc.7b00178> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

ZnS thin films and nanostructured layers by chemical spray pyrolysis

Dedova, Tatjana; Krunks, Malle; Gromõko, Inga; Mikli, Valdek; Sildos, Ilmo; Utt, Kathriin; Unt, Tarmo XXXIII Eesti Keemiapäevad : teaduskonverentsi teesid 2013 / p. 13

ZnS thin films deposited by spray pyrolysis technique

Dedova, Tatjana; Krunks, Malle; Volobujeva, Olga; Oja, Ilona Physica status solidi (c) : proceedings 2005 / 3, p. 1161-1166 : ill

Teaduspreemia tehnikateaduste alal töö "Pooljuhtmaterjalid päikeseenergeetikale ja optoelektronikale" eest

Melikov, Enn; Altosaar, Mare; Krunks, Malle; Krustok, Jüri; Valdna, Vello Eesti Vabariigi teaduspreemiad 1998 1998 / lk. 32-39: fotod

Teaduspreemia tehnikateaduste alal uurimuste tsükli "Vedeliksadestuse tehnoloogiad konkurentsivõimelisele päikeseenergeetikale" eest : Malle Krunks

Krunks, Malle Eesti Vabariigi teaduspreemiad 2009 / lk. 86-99 : portr., ill

Temperature and thickness effect of Nio layer on photocatalytic activity of Nio/Zno heterostructure by ultrasonic spray method

Chen, Zengjun; Dedova, Tatjana; Oja Acik, Ilona; Krunks, Malle GSFMT Scientific Conference 2021 : Tartu, June 14-15, 2021 : abstracts 2021 / P 45 https://fmdtk.ut.ee/wp-content/uploads/2021/06/GSFMT_abstractbook_2021.pdf

The effect of growth temperature and spraying rate on the properties of ZnO:In films

Kriisa, Merike; Kärber, Erki; Unt, Tarmo; Mere, Arvo; Krunks, Malle Physica status solidi (c) 2012 / p. 1604-1606 : ill
<https://onlinelibrary.wiley.com/doi/pdf/10.1002/pssc.201200008>

The effect of tartaric acid in the deposition of Sb2S3 films by chemical spray pyrolysis

Kriisa, Merike; Krunks, Malle; Oja Acik, Ilona; Kärber, Erki; Mikli, Valdek Materials science in semiconductor processing 2015 / p. 867-872 : ill <https://doi.org/10.1016/j.mssp.2015.07.049> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

The effect of tartaric acid in the deposition of Sb2S3 films by chemical spray pyrolysis [Online resource]

Kriisa, Merike; Krunks, Malle; Oja Acik, Ilona; Kärber, Erki; Mikli, Valdek Tartu Ülikooli ASTRA projekt PER ASPERA : Funktsionaalsed materjalid ja tehnoloogiad : [7-8 märts 2017, Tartu : teesid] 2017 / [1] p <http://fmdtk.ut.ee/teesid/>

Thermal behaviour of precursors for CuInS2 thin films deposited by spray pyrolysis

Oja Acik, Ilona; Otto, Kairi; Krunks, Malle; Tõnsuaadu, Kaia; Mere, Arvo Journal of thermal analysis and calorimetry 2013 / p. 1455-1465 : ill <https://doi.org/10.1007/s10973-013-3155-7> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Thermal decomposition of cadmium and copper thiocarbamide chlorides

Krunks, Malle; Madarasz, Janos; Leskelä, T.; Hiltunen, L.; Mannonen, R.; Niinistö, L. 15th Nordic symposium for thermal analysis and calorimetry : programme, extended abstracts 1996 / p. 11

Thermal decomposition of copper(I) thiocarbamide chloride hemihydrate

Krunks, Malle; Leskelä, T.; Mannonen, R.; Niinistö, L. Journal of thermal analysis 1998 / p. 355-364: ill

Thermal decomposition of dichlorobis(thiourea)cadmium(II) in inert and oxidative atmosphere

Krunks, Malle; Madarasz, Janos; Hiltunen, L.; Mannonen, R.; Melikov, Enn; Niinistö, L. Abstracts of Symposium on Thermal Analysis, Sopron, Hungary 1995 / p. 84

Thermal decomposition of tris(O-ethylthiocarbonato)-antimony(III) - a single-source precursor for antimony sulfide thin films

Eensalu, Jako Siim; Tõnsuaadu, Kaia; Adamson, Jasper; Oja Acik, Ilona; Krunks, Malle Journal of thermal analysis and calorimetry 2022 / p. 4899-4913 : ill <https://doi.org/10.1007/s10973-021-10885-1> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Thermal decomposition study of HAuCl4.3H2O and AgNO3 as precursors for plasmonic metal nanoparticles

Otto, Kairi; Krunks, Malle; Oja Acik, Ilona; Tõnsuaadu, Kaia Book of abstracts : 2nd Central and Eastern European Conference on Thermal Analysis and Calorimetry, 27-30 August 2013, Vilnius, Lithuania 2013 / p. 298

Thermal decomposition study of HAuCl4.3H2O and AgNO3 as precursors for plasmonic metal nanoparticles

Otto, Kairi; Oja Acik, Ilona; Krunks, Malle; Tõnsuaadu, Kaia; Mere, Arvo Journal of thermal analysis and calorimetry 2014 / p. 1065-1072 : ill <https://doi.org/10.1007/s10973-014-3814-3> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Thermally evolved gases from thiourea complexes of CuCl in air : detailed comparisons by TG-FTIR and TG/DTA-MS for compounds poor and rich in thiourea

Madarasz, Janos; **Krunks, Malle**; Niinistö, Lauri; Pokol, György Journal of thermal analysis and calorimetry 2015 / p. 189-199 : ill
<https://doi.org/10.1007/s10973-015-4481-8> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

A thermoanalytical and structural study of copper(I) thiocarbamide compounds

Krunks, Malle; Leskelä, T.; Mutikainen, Ilpo; Niinistö, L. ESTAC-7 : 7th European Symposium on Thermal Analysis and Calorimetry, Aug. 30 - Sept. 4, 1998, Balatonfüred, Hungary : book of abstracts 1998 / p. 88
<https://link.springer.com/content/pdf/10.1023/A:1010184107901.pdf>

Thermoanalytical studies of titanium(IV) acetyl-acetonate xerogels with emphasis on evolved gas analysis

Oja Acik, Ilona; Madarasz, Janos; **Krunks, Malle**; **Tönsuaadu, Kaia**; Janke, D.; Pokol, György; Niinistö, L. Journal of thermal analysis and calorimetry 2007 / p. 557-563 : ill <https://link.springer.com/content/pdf/10.1007/s10973-006-8064-6.pdf>

Thermoanalytical study of a precursor for CuInS₂ thin films deposited by chemical spray pyrolysis

Oja Acik, Ilona; **Otto, Kairi**; **Tönsuaadu, Kaia**; **Katerski, Atanas**; Niinistö, L.; **Krunks, Malle** ESTAC10 : 10th European Symposium on Thermal Analysis and Calorimetry : August 22-27, 2010, Rotterdam, The Netherlands : abstract book 2010 / p. 175

Thermoanalytical study of a precursor for In₂S₃ films by spray pyrolysis

Otto, Kairi; **Oja Acik, Ilona**; **Tönsuaadu, Kaia**; **Annert, Katre**; **Krunks, Malle** ESTAC10 : 10th European Symposium on Thermal Analysis and Calorimetry : August 22-27, 2010, Rotterdam, The Netherlands : abstract book 2010 / p. 181

Thermoanalytical study of acetylacetonate-modified titanium(IV)isopropoxide as a precursor for TiO₂ films

Krunks, Malle; **Oja, Ilona**; **Tönsuaadu, Kaia**; Es-Souni, M.; Gruselle, M.; Niinistö, L. Journal of thermal analysis and calorimetry 2005 / p. 483-488 : ill <https://link.springer.com/article/10.1007/s10973-005-0681-y>

Thermoanalytical study of acetylacetone modified titanium(IV)isopropoxide as a precursor for TiO₂ films

Krunks, Malle; **Oja, Ilona**; **Tönsuaadu, Kaia**; Es-Souni, M.; Gruselle, M.; Niinistö, L. ICTAC 13 : 13th International Congress on Thermal Analysis and Calorimetry : XXVI Conference AICAT-GICAT : Chia Laguna, September 12-19, 2004 : book of abstracts 2004 / p. 276 <https://link.springer.com/article/10.1007/s10973-005-0681-y>

A thermoanalytical study of copper(I) thiocarbamide compounds

Krunks, Malle; Leskelä, T.; Mutikainen, Ilpo; Niinistö, L. Journal of thermal analysis and calorimetry 1999 / 2, p. 479-484: ill

A thermoanalytical study of CuInS₂ formation in spray pyrolysis process

Krunks, Malle; Leskelä, Tuula; Niinistö, Lauri Twelfth International Conference on Ternary and Multinary Compounds : March 13-17, 2000 : National Tsing Hua University, Hsinchu, Taiwan : abstract[s] 2000 / p. Th-A1-1

Thermoanalytical study of precursors for In₂S₃ thin films deposited by spray pyrolysis

Otto, Kairi; **Oja Acik, Ilona**; **Tönsuaadu, Kaia**; **Mere, Arvo**; **Krunks, Malle** Journal of thermal analysis and calorimetry 2011 / p. 615-623 : ill

Thermoanalytical study of precursors for SnS thin films deposited by chemical spray pyrolysis method

Polivtseva, Svetlana; **Oja Acik, Ilona**; **Tönsuaadu, Kaia**; **Mere, Arvo**; **Krunks, Malle** ESTAC-11 : the 11th European Symposium on Thermal Analysis and Calorimetry : Dipoli Congress Center, Espoo, Finland, August 17-21, 2014 : abstracts 2014 / p. 86

Thermoanalytical study of precursors for tin sulfide thin films deposited by chemical spray pyrolysis

Polivtseva, Svetlana; **Oja Acik, Ilona**; **Krunks, Malle**; **Tönsuaadu, Kaia**; **Mere, Arvo** Journal of thermal analysis and calorimetry 2015 / p. 177-185 : ill <https://doi.org/10.1007/s10973-015-4580-6> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Thermoanalytical study of zinc thiocarbamide chloride

Krunks, Malle; Madarasz, Janos; Leskelä, T.; **Mere, Arvo**; Niinistö, L.; Pokol, György ESTAC 8 : 8th European Symposium on Thermal Analysis and Calorimetry, Barcelona, Spain, August 25-29, 2002 : abstracts book 2002 / p. 42

Thermoanalytical study of titanium(IV) acetylacetonate xerogels

Oja Acik, Ilona; Madarasz, Janos; **Tönsuaadu, Kaia**; **Krunks, Malle**; Pokol, György ESTAC 9 : 9th European Symposium on Thermal Analysis and Calorimetry : 27-31 August 2006, Krakow, Poland : [book of abstracts] 2006 / p. 328
<https://link.springer.com/article/10.1007/s10973-006-8064-6>

Thickness effect on photocatalytic activity of TiO₂ thin films fabricated by ultrasonic spray pyrolysis

Dundar, Ibrahim; **Mere, Arvo**; **Mikli, Valdek**; **Krunks, Malle**; **Oja Acik, Ilona** Catalysts 2020 / art. 1058
<https://doi.org/10.3390/catal10091058> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Thin films by chemical spray pyrolysis for photovoltaic applications

Krunks, Malle 1st Central and Eastern European Conference on Thermal Analysis and Calorimetry (CEEC-TAC1), 7-10 September

Thin films by laser ablation

Podgurski, Vitali; Kruusing, Arvi; Altosaar, Mare; Krunk, Malle; Mellikov, Enn International Conference Advanced Optical Materials and Devices, 1996 1996 / p. 199

Thin films by wet chemical deposition techniques

Krunk, Malle AOMD-5 : 5th International Conference Advanced Optical Materials and Devices : Vilnius, Lithuania, 27-30 August, 2006 : program and abstracts 2006 / p. 89

Tin sulfide films by chemical spray pyrolysis : formation and properties = Tinasulfiid kiled keemilise pihustuspürolüüsi meetodil : moodustumine ja omadused

Polivtseva, Svetlana 2018 <https://digi.lib.ttu.ee//?9416> https://www.ester.ee/record=b4767116*est

Tin sulfide films by spray pyrolysis technique using L-cysteine as a novel sulfur source

Polivtseva, Svetlana; Oja Acik, Ilona; Katerski, Atanas; Mere, Arvo; Mikli, Valdek; Krunk, Malle Physica status solidi (c) 2016 / p. 18-23 : ill <https://doi.org/10.1002/pssc.201510098> [Journal metrics at Scopus](#) [Article at Scopus](#) [Article at WOS](#)

TiO₂ sool-geel meetodil : atsetüülatsetoniga stabiliseeritud titaan (IV) isoproksiidi termiline lagunemine

Oja, Ilona; Krunk, Malle; Tõnsuaadu, Kaia; Es-Souni, M.; Gruselle, M.; Niinistö, L. XXIX Eesti keemiapäevad : teaduskonverentsi ettekannete teesid = 29th Estonian Chemistry Days : abstracts of scientific conference 2005 / lk. 74

TiO₂ thin films by ultrasonic spray pyrolysis for photocatalytic air-cleaning applications = TiO₂ õhukesed kiled ultraheli pihustuspürolüüsi meetodil õhu fotokatalüütiliseks puhastamiseks

Dündar, Ibrahim 2021 https://www.ester.ee/record=b5408882*est <https://digikogu.taltech.ee/et/Item/266d75a3-ff2e-4bcf-aa54-2151511e871f> <https://doi.org/10.23658/taltech.13/2021>

TiO₂ õhukesed kiled sool-geel meetodil

Oja, Ilona; Es-Souni, M.; Krunk, Malle XXVIII Eesti keemiapäevad : teaduskonverentsi ettekannete teesid = 28th Estonian Chemistry Days : abstracts of scientific conference 2002 / lk. 96

Titania thin films by chemical spray pyrolysis as photocatalytic materials for air purification [Online resource]

Dündar, Ibrahim; Katerski, Atanas; Kritševskaja, Marina; Oja Acik, Ilona; Krunk, Malle 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 <http://fmtdk.ut.ee/teesid-2018/>

Titanium(IV) acetylacetonate xerogels for processing titania films : a thermoanalytical study

Oja Acik, Ilona; Madarasz, Janos; Krunk, Malle; Tõnsuaadu, Kaia; Pokol, György; Niinistö, L. Journal of thermal analysis and calorimetry 2009 / 1, p. 39-45 : ill https://www.researchgate.net/publication/243958213_TitaniumIV_acetylacetonate_xerogels_for_processing_titania_films_AAA_thermoanalytical_study

Titanium(IV) acetylacetonate xerogels for processing titania films : structure and thermal analysis [Electronic resource]

Oja Acik, Ilona; Madarasz, Janos; Heinamaa, Ivo; Pehk, Tõnis; Tõnsuaadu, Kaia; Krunk, Malle; Pokol, György; Niinistö, Lauri 14th International Congress on Thermal Analysis and Calorimetry . VI Brazilian Congress on Thermal Analysis and Calorimetry : September 14-18, 2008, Sao Pedro, Brazil 2008 / p. OP-C06 [CD-ROM] <https://link.springer.com/article/10.1007/s10973-008-9647-1>

Towards all inorganic antimony sulphide semitransparent solar cells

Pareek, Alka; Katerski, Atanas; Kriisa, Merike; Spalatu, Nicolae; Krunk, Malle; Oja Acik, Ilona Scientific reports 2024 / art. 1468 <https://doi.org/10.1038/s41598-025-85676-x>

Transparent TiO₂ thin films with high photocatalytic activity for indoor air purification

Sydorenko, Jekaterina; Mere, Arvo; Krunk, Malle; Krichevskaya, Marina; Oja Acik, Ilona RSC advances 2022 / p. 35531-35542 <https://doi.org/10.1039/D2RA06488J> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Ultra thin TiO₂ films with gold nanoparticles by the chemical spray pyrolysis method

Oja Acik, Ilona; Oyekoya, G.; Dedova, Tatjana; Mikli, Valdek; Mere, Arvo; Krunk, Malle; Dolgov, Leonid; Sildos, Ilmo Joint 12th Russia/CIS/Baltic/Japan Symposium on Ferroelectricity and 9th International Conference Functional Materials and Nanotechnologies : Institute of Solid State Physics, University of Latvia, September 29-October 2, Riga, Latvia : book of abstracts 2014 / p. 296

Uniform Sb₂S₃ optical coatings by chemical spray method

Eensalu, Jako Siim; Katerski, Atanas; Kärber, Erki; Oja Acik, Ilona; Mere, Arvo; Krunk, Malle Beilstein journal of nanotechnology 2019 / p. 198-210 : ill <https://doi.org/10.3762/bjnano.10.18> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Uniform Sb₂S₃ optical coatings by chemical spray method : [conference paper]

Eensalu, Jako Siim; Katerski, Atanas; Kärber, Erki; Oja Acik, Ilona; Mere, Arvo; Krunks, Malle Tartu Ülikooli ASTRA projekt PER ASPERA : Funktsionaalsed materjalid ja tehnoloogiad : [4.-5. veebr. 2019, Tartu : teesid] 2019 / 1 p <http://fmdtk.ut.ee/teesid-2019/>

Vedeliksadestuse tehnoloogiad konkurentsivõimelisele päikeseenergeetikale : kommentaar Eesti Vabariigi teaduse aastapreemia pälvinud tööde tsüklile

Krunks, Malle Tallinna Tehnikaülikooli aastaraamat 2009 2009 / lk. 188-192

Õhukesekilelised päikeseplatte pihustuspürolüüsi meetodil

Krunks, Malle Teadusmõtte Eestis. 4, Tehnikateadused. 2 2007 / lk. 41-48 : ill

Õhukeste TiO₂ kilede kasv erinevatel alustel pihustuspürolüüsi meetodil

Junolainen, Agne; **Oja Acik, Ilona; Mikli, Valdek; Danilson, Mati; Krunks, Malle** XXXI Eesti keemiapäevad : [28. aprill 2010, Tallinn] : teaduskonverentsi teesid = 31st Estonian Chemistry Days : abstracts of scientific conference 2010 / lk. 35

Ühendpooljuhtmaterjalide õhukesed kiled keemilise pihustamise meetodil = Thin films of compound semiconductor materials by chemical spray pyrolysis

Krunks, Malle; Mellikov, Enn; Varema, Tiit; Bijakina, Olga; Niinistö, L. XVII Eesti keemiapäevad : teaduskonverentsi ettekannete referaadid = 17th Estonian Chemistry Days : abstracts of scientific conference 1996 / lk. 87-88

https://www.ester.ee/record=b1070511*est

XPS study of OH impurity in solution processed CdS thin films

Maticiu, Natalia; Katerski, Atanas; Danilson, Mati; Krunks, Malle; Hiie, Jaan Solar energy materials and solar cells 2017 / p. 211-216 : ill <https://doi.org/10.1016/j.solmat.2016.10.040> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

X-ray photoelectron spectroscopy of spray pyrolysis deposited copper indium disulfide films

Katerski, Atanas; Kazlauskienė, Vida; Miskinis, Juozas; Krunks, Malle AOMD-5 : 5th International Conference Advanced Optical Materials and Devices : Vilnius, Lithuania, 27-30 August, 2006 : program and abstracts 2006 / p. 20

Анализ сульфидов меди разных степеней окисления вольтампериметрии с пастовым электродом

Vidrevičs, Marina; Uritskaja, Alla; Kitajev, G.; **Mellikov, Enn; Krunks, Malle** Заводская лаборатория : ежемесячный научно-технический журнал 1984 / с. 17-19

Влияние плавня на формирование люминофора на основе сульфида кадмия

Hiie, Jaan; Mellikov, Enn; Krunks, Malle; Varvas, Jüri Материалы XXI Сессии по люминесценции. (Кристаллофосфоры). 9-12 октября 1973 г 1973 / с. 94-95

Влияние природы галогенидного плавня на механизм кристаллизации и морфологию кристаллов люминофоров на основе CdS и CdSe

Mellikov, Enn; Hiie, Jaan; Krunks, Malle; Varvas, Jüri Тезисы XXIII Всесоюзной конференции по люминесценции 1976 / с. 200 https://www.ester.ee/record=b3798280*est

Влияние природы плавня на механизм кристаллизации и морфологию кристаллов люминофоров на основе CdS и CdSe

Mellikov, Enn; Hiie, Jaan; Krunks, Malle; Varvas, Jüri Известия Академии наук СССР. Серия физическая 1976 / с. [2361]-2363 : ил https://www.ester.ee/record=b2367543*est

Влияние условий термической обработки на образование фоточувствительности в порошках CdS

Veel, Ene; Krunks, Malle; Hiie, Jaan; Mellikov, Enn Полупроводниковые материалы. 3 1976 / с. 87-94 : илл https://www.ester.ee/record=b1403374*est <https://digikogu.taltech.ee/et/Item/5f8fd05c-ff69-4315-9d64-1d9c9611667b>

Дезоксидация и рекристаллизация "люминофорного" CdS при его прокаливании в H₂ и H₂S

Veel, Ene; Krunks, Malle; Hiie, Jaan; Mellikov, Enn; Tünn, Leo Полупроводниковые материалы. 3 1976 / с. 133-138 : илл https://www.ester.ee/record=b1403374*est <https://digikogu.taltech.ee/et/Item/5f8fd05c-ff69-4315-9d64-1d9c9611667b>

Жидкофазное спекание и рост кристаллов порошка сульфида кадмия

Mellikov, Enn; Hiie, Jaan; Krunks, Malle; Varvas, Jüri Порошковая металлургия : (Тезисы докладов XII Всесоюзной научно-технической конференции по порошковой металлургии, окт. 1975 г.) 1975 / с. 105-108

Изучение рекристаллизации порошков халькогенидов кадмия

Hiie, Jaan; Mellikov, Enn; Krunks, Malle Второе всесоюзное совещание по химии твердого тела, 11-13 мая 1978 г. : тезисы докладов : [в 2-х частях] 1978 / с. 57 https://www.ester.ee/record=b4433699*est

Кинетика формирования люминофора на основе сульфида кадмия

Hiie, Jaan; Mellikov, Enn; Krunks, Malle Материалы XXI Сессии по люминесценции. (Кристаллофосфоры). 9-12 октября 1973 г 1973 / с. 93-94

Кинетика формирования сульфоселенида кадмия

Krunks, Malle; Mellikov, Enn I республиканская конференция молодых ученых-химиков, 20-22 мая 1975 года : тезисы докладов 1975 / с. 192-193 https://www.ester.ee/record=b1309964*est

Легирование тонких пленок CdS при их получении методом химической пульверизации

Krunks, Malle IV республиканская конференция молодых ученых-химиков : тезисы докладов 1981 / с. 106-107 https://www.ester.ee/record=b1309986*est

Направленный синтез тонких пленок сульфида кадмия методом химической пульверизации

Krunks, Malle Синтез и исследование халькогенидных пленок : тезисы докладов уральской конференции (14-16 окт.) 1986 / с. ?

Некоторые вопросы активации монокристаллических порошков сульфоселенидов кадмия

Krunks, Malle; Veel, Ene; Hiie, Jaan; Mellikov, Enn Полупроводниковые материалы. 3 1976 / с. 127-132 : илл https://www.ester.ee/record=b1403374*est <https://digikogu.taltech.ee/et/Item/5f8fd05c-ff69-4315-9d64-1d9c9611667b>

Некоторые вопросы роста химически пульверизованных пленок сульфида кадмия

Krunks, Malle; Mellikov, Enn III республиканская конференция молодых ученых-химиков, 15-17 мая 1979 года : тезисы докладов 1979 / с. 5 https://www.ester.ee/record=b1280470*est

Образование пленок CdS и CdZnS при химической пульверизации растворов

Krunks, Malle; Mellikov, Enn; Karpenko, I.V. Физическая химия соединений AIIIBVI 1981 / с. 35-42 : илл https://www.ester.ee/record=b1533413*est <https://digikogu.taltech.ee/et/Item/dceb76ed-f60b-4ce9-b87e-618a41d25bb8>

Образование сульфида кадмия при термораспаде продуктов взаимодействия тиомочевины с хлоридом кадмия

Krunks, Malle; Mellikov, Enn; Sork, Eeve Журнал неорганической химии 1985 / с. 1373-1376 https://www.ester.ee/record=b1443384*est

Образование химически пульверизованных пленок CdS и Cd 1-х ZnхS : автореферат ... кандидата химических наук (02.00.04)

Krunks, Malle 1985 https://www.ester.ee/record=b1520403*est

Особенности легирования монокристаллического селенида кадмия хлором и медью

Hiie, Jaan; Mellikov, Enn; Krunks, Malle; Altosaar, Mare; Valdna, Vello; Varvas, Jüri Третья Всесоюзная конференция по физико-химическим основам легирования полупроводниковых материалов, Москва, 20-22 окт. 1975 г. : Тезисы докладов 1975 / с. 112

Полупроводниковые материалы

Varvas, Jüri; Nirk, Tiit; Öpik, Andres; Krustok, Jüri; Mädasson, Jaan; Lott, Kalju; Višnjakov, A.V.; Raukas, Maie; Türn, Leo; Iljina, Natalja; Varema, Tiit; Krunks, Malle; Mellikov, Enn; Sork, Eeve; Vidreviš, Marina; Palmre, Õie; Hiie, Jaan; Tuvike, Tiit; Klepikova, N.V. 1984 https://www.ester.ee/record=b1314940*est

Полупроводниковые материалы

Rusalep, Ervin; Kuk, Peeter-Enn; Krustok, Jüri; Mädasson, Jaan; Altosaar, Mare; Ruus, Tõnu; Aarna, Heiti; Mankin, Romi; Reiter, Eerik; Krunks, Malle; Mellikov, Enn; Seilenthal, Mats; Vallaste, Heikki; Tuvike, Tiit; Palmre, Õie; Bender, Villem; Veimer, Vladimir; Mere, Arvo; Roninson, Aleksander; Silas, Aarne; Gavrilov, Aleksei; Paat, Aadu; Meiler, Boriss 1986 https://www.ester.ee/record=b1296001*est

Полупроводниковые материалы

Reiter, Eerik; Meiler, Boriss; Krustok, Jüri; Piibe, Toomas; Mädasson, Jaan; Altosaar, Mare; Tomson, A.; Kuk, Peeter-Enn; Tuvike, Tiit; Palmre, Õie; Vallaste, Heikki; Päid, Imbi; Kuusmets, Eela; Petrov, P.; Mellikov, Enn; Erm, Ants; Krunks, Malle; Gavrilov, Aleksei; Košelap, Andrei; Bender, Vladimir; Mere, Arvo; Veimer, Vladimir; Kurik, Lembit; Sinivee, Veljo 1988 https://www.ester.ee/record=b1220756*est

Разработка фоточувствительного сульфида кадмия для применения в областях СВЧ и ионизирующего излучения

Veel, Ene; Krunks, Malle; Hiie, Jaan; Mellikov, Enn Тезисы докладов Конференции по технологии получения, исследованию свойств, применению редких металлов, их соединений и полупроводниковых материалов 1976 / с. 209

Рекристаллизация порошков сульфида кадмия

Mellikov, Enn; Hiie, Jaan; Krunks, Malle; Iljina, Natalja Всесоюзное совещание "Реальная структура неорганических жаростойких и жаропрочных материалов, 9-12 октября" [Текст] : Тезисы докладов 1979 / с. [?]

Рентгенофазовый анализ продуктов взаимодействия хлорида кадмия с тиомочевинной

Sork, Eeve; Krunks, Malle VI Республиканская конференция молодых ученых-химиков : тезисы докладов 1985 / с. 238 https://www.ester.ee/record=b1232928*est

Синтез и применение узкодисперсных порошков сульфида и селенида кадмия

Krunk, Malle; Mellikov, Enn; Hiie, Jaan Дисперсные кристаллические порошки в материаловедении : доклады семинара 1980 / с. 67

Синтез монокристаллических порошков сульфоселенида кадмия

Krunk, Malle; Mellikov, Enn; Hiie, Jaan; Veel, Ene Полупроводниковые материалы. 3 1976 / с. 63-69 : илл
https://www.ester.ee/record=b1403374*est <https://digikogu.taltech.ee/et/Item/5f8fd05c-ff69-4315-9d64-1d9c9611667b>

Структурные и оптические свойства химически пульверизованных пленок сульфида кадмия

Krunk, Malle; Mellikov, Enn; Sork, Eeve; Vidrevitš, Marina Физическая химия соединений AIBVI 1984 / с. 49-58

Твердофазная рекристаллизация порошка сульфида кадмия

Mellikov, Enn; Veel, Ene; Krunk, Malle; Hiie, Jaan Кинетика и механизм реакций в твердом теле : тезисы докладов Всесоюзного совещания. 1(25-27 ноября 1981 г.) 1981 / с. [?]

Термическое разложение тиомочевинных комплексов

Krunk, Malle; Mellikov, Enn; Sork, Eeve Синтез и исследование халькогенидных пленок : тезисы докладов уральской конференции (14-16 окт.) 1986 / с. ?

Термическое разложение тиомочевинных комплексов кадмия

Krunk, Malle; Mellikov, Enn Tallinna Tehnikaülikooli Toimetised 1990 / lk. 3-22: ill

Улучшение однородности исходных порошковых материалов CdS, используемых при вакуумном напылении пленок

Mellikov, Enn; Hiie, Jaan; Karpenko, I.V.; Putškova, K.N.; Rändur, Õie; Krunk, Malle; Veel, Ene; Tünn, Leo Полупроводниковые материалы. 3 1976 / с. 43-51 https://www.ester.ee/record=b1403374*est <https://digikogu.taltech.ee/et/Item/5f8fd05c-ff69-4315-9d64-1d9c9611667b>

Фотолюминесценция гетероструктур на основе сульфида кадмия

Erm, Ants; Krunk, 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; Krunk, 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 химически пульверизованных пленок

Erm, Ants; Krunk, Malle; Mellikov, Enn Электрофизические свойства полупроводниковых и диэлектрических материалов 1988 / с. 85-93

Фотопреобразователи CdS - CU2S на основе пульверизованных пленок

Varema, Tiit; Iljina, Natalja; Krunk, Malle; Terasmaa, P.; Mellikov, Enn; Karpenko, I.V. Полупроводники и гетеропереходы : сборник статей 1987 / с. 43-46 : ил https://www.ester.ee/record=b1262177*est

Фотопреобразователи CdS-Cu2S на основе пульверизованных пленок

Krunk, Malle; Mellikov, Enn; Sork, Eeve; Varema, Tiit Материалы «IX Международного совещания по фотоэлектрическим и оптическим явлениям в твердых телах» Варна, Болгария 1989 / с. 36-37

Химические методы в технологии тонких пленок и гетеропереходов на их основе

Krunk, Malle; Kulša, D.; Mellikov, Enn Всесоюзная конференция по физике и технологии тонких пленок (явления переноса), г. Ивано-Франковск, 11-13 мая 1981 г. : тезисы докладов 1984 / с. 93

Электрические и структурные свойства химически пульверизованных пленок CdS

Krunk, Malle 5-я республиканская конференция молодых ученых-химиков : [тезисы докладов] 1983 / с. 236 https://www.ester.ee/record=b1312297*est

Электрофизические свойства тонкопленочных барьеров шоттки на основе сульфида кадмия, изготовленного методом химической пульверизации

Krunk, Malle; Mellikov, Enn; Seilenthal, Mats Электрофизические свойства полупроводниковых и диэлектрических материалов 1986 / с. 49-55