

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

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 H₂SO₄·3H₂O 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 vaskindiumdisulfiid-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/7155> 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_Abstracts%20EMRS%202018_SYMPOSIUM%20A_Thin%20film%20chalcogenide%20photovoltaic%20materials.pdf&type=application%2Fpdf)

[name=Fail_Abstracts%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_Abstracts%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

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

Corrigendum to “An alternative chlorine-assisted optimization of CdS/Sb₂Se₃ solar cells: Towards understanding of chlorine incorporation mechanism” [J. Alloy. Compd. 1005 (2024) 176175](S0925838824027622)(10.1016/j.jallcom.2024.176175)

Vadakkedath Gopi, Sajeesh; Spalatu, Nicolae; Katerski, Atanas; Kuliček, Jaroslav; Rezek, Bohuslav; Ukraintsev, Egor; Bařínková, Markéta Šlapal; Zoppi, Guillaume; **Krunks, Malle; Acik, Ilona Oja** Journal of alloys and compounds 2024 / art. 176729, 1 p <https://doi.org/10.1016/j.jallcom.2024.176729> [Journal metrics at Scopus](#) [Article at Scopus](#)

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; Krunks, 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; **Krunks, Malle; Oja Acik, Ilona** WCPEC-8 : 8th World Conference on Photovoltaic Energy Conversion 2022 / p. 470-473 <https://doi.org/10.4229/WCPEC-82022-2BV.2.70>

Cost-effective sprayed CuInS₂ films for solar cells

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

Cost-effective sprayed CuInS₂ films for solar cells

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

CuInS₂ thin films: formation by spray pyrolysis and properties

Krunks, 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

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

Deposition of p-type NiO films by chemical spray pyrolysis
Krunks, 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 kiledel 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 (RTUCON): conference proceedings 2022 / 5 p. : ill <https://doi.org/10.1109/RTUCON56726.2022.9978908>

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> Journal metrics at Scopus Article at Scopus Journal metrics at WOS Article at WOS

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 fotokatalüütliste 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**; **Maticiu, 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**; **Maticiu, 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, Kathrin**; **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://fntdk.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 / 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 l. [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> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

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 H₂AuCl₄ : 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
Madarasz, Janos; **Krunks, Malle; Niinistö, Lauri; Pokol, György** Journal of thermal analysis and calorimetry 2004 / p. 679-686 : ill

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

Shtepliuk, 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.ester.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/acs.aem.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; Kuk, 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 ZnO 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, Kaunas, Lithuania 2010 / p.301-309

In₂S₃ kilede moodustumine pihustuspürolüüsi protsessis : termoanalüütiline 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; Kukk, 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; Maticiuc, 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

Binkauskienė, Elena; Lugauskas, Albinas; Krunks, Malle; Oja Acik, Ilona; Jasulaitienė, 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

Binauskienė, E.; Lugauskas, Albinas; Krunks, Malle; Oja Acik, Ilona; Jasulaitienė, 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 Krunksi

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/](https://www.ttu.ee/ttu-uudised/ajaleht-mente-et-manu/mente-et-manu/http://www.ester.ee/record=b1242496*est)
http://www.ester.ee/record=b1242496*est https://artiklid.elnet.ee/record=b2836021*est

Malle Krunks: teadlane ei ole amet, vaid elustiil

Krunks, Malle Mente et Manu 2025 / lk. 28-29 : fot https://www.ester.ee/record=b1242496*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

Krunk, 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; Gromöko, Inga; Mikli, Valdek; Volobujeva, Olga; Utt, Kathrin; Sildos, Ilmo; Mere, Arvo; Krunk, 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

Krunk, 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; Krunk, 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

Krunk, 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

Krunk, 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; Krunk, 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

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

Novel materials for future PV technologies [Online resource]

Krunk, 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; Krunk, 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

Optimization of VTD Sb₂Se₃ absorber growth rate in CdS/Sb₂Se₃ thin film solar cells : A defect perspective on chloride vs non-chloride based devices

Gopi, Sajeesh Vadakkedath; Krautmann, Robert; Katerski, Atanas; Josepson, Raavo; Untila, Dumitru; Hiie, Jaan; Krunks, Malle; Oja Acik, Ilona; Spalatu, Nicolae Solar energy materials and solar cells 2025 / art. 113856
<https://doi.org/10.1016/j.solmat.2025.113856>

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 Materials and Technology (GSFMT) Scientific Conference : abstracts 2022 / 58 l. [Graduate School of Functional Materials and Technology \(GSFMT\) Scientific Conference 2022](#)

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 CdS_xTe_{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 CdS_xTe_{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 CdS_xTe_{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

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; Maticiu, 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; Maticiu, 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

Maticiu, 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; Maticiu, 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](#)

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/In₂Se₃/CuInS₂ solar cell and the constituent layers deposited by chemical spray method = Keemilise pihustuse meetodil sadestatud ZnO-nanovarras/In₂Se₃/CuInS₂ 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://fmttk.ut.ee/wp-content/uploads/2020/01/GSFMT2020.pdf>

Sb₂S₃ thin films by ultrasonic spray in air : formation and application insolar cells

Krunks, Malle; Eensalu, Jako Siim; Kriisa, Merike; Tõnsuaadu, Kaia; Katerski, Atanas; Hussein, H.; Asare, E.; Spalatu, Nicolae; Oja Acik, Ilona JTACC+V4 2025 : 4th Journal of Thermal Analysis and Calorimetry Conference & 10th V4 (Joint Czech-Hungarian-Polish-Slovak) Thermoanalytical Conference : Book of Abstracts 2025 / p. 86
<https://static.akcongress.com/downloads/jtacc/jtacc2025/jtacc2025-boa.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://fmtk.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; Gromöko, 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 vaskindiumsulfidkilede 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 Sb₂Se₃ thin films deposited by aerosol methods = Aerosoolmeetoditel sadestatud ZnO:In, Zn(O,S) ja Sb₂Se₃ õhukeste kilede uurimine

Kriisa, Merike 2017 <https://digi.lib.ttu.ee/i/?7676> 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

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

Gromõko, 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. VII-298-VII-305

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

Gromõko, Inga; Dedova, Tatjana; Krunks, Malle; Sõritski, 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 : kasvamine, pinnaomadused, fotokatalüütiline võimekus **Gromõko, Inga** 2018 <https://digi.lib.ttu.ee/i/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]

Gromõko, 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://fmtdk.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; Maticiu, 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; Gromõko, 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://fmtdk.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://fmtdk.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

Krunk, 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

Krunk, Malle; Madarasz, Janos; Hiltunen, L.; Mannonen, R.; **Mellikov, 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; Krunk, 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; Krunk, 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; Krunk, 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; **Krunk, 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

Krunk, 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; **Krunk, Malle; Tõnsuaadu, 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; Tõnsuaadu, Kaia; Katerski, Atanas; Niinistö, L.; **Krunk, 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; Tõnsuaadu, Kaia; Annert, Katre; Krunk, 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

Krunk, Malle; Oja, Ilona; Tõnsuaadu, 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

Krunk, Malle; Oja, Ilona; Tõnsuaadu, 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

Krunk, 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

Krunk, 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; Tõnsuaadu, Kaia; Mere, Arvo; Krunk, 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; Tõnsuaadu, 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; Tõnsuaadu, 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; Tõnsuaadu, 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 2011, Craiova, Romania : book of abstracts 2011 / p. 43

Thin films by laser ablation

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

Thin films by wet chemical deposition techniques

Krunks, 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; Krunks, 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; Krunks, 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.; Krunks, 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; 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/>

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

Oja Acik, Ilona; Madarasz, Janos; Krunks, 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**; **Krunks, 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**; **Krunks, 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**; **Krunks, 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**; **Krunks, 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**; **Krunks, 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 päikeseplatteid 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; **Uriskaja, 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 Совещания 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 Совещания 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 AIIbVI 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; Tünn, Leo; Iljina, Natalja; Varema, Tiit; Krunks, Malle; Mellikov, Enn; Sork, Eeve; Vidrevišt, Marina; Palmre, Öie; Hiie, Jaan; Tuvike, Tiit; Klepikova, N.V. 1984 https://www.ester.ee/record=b1314940*est

Полупроводниковые материалы

Rusalep, Ervin; Kukk, 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.; Kukk, 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

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

Синтез монокристаллических порошков сульфоселенида кадмия

Krunks, 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

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

Твердофазная рекристаллизация порошка сульфида кадмия

Mellikov, Enn; Veel, Ene; Krunks, 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

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

Термическое разложение тиомочевинных комплексов кадмия

Krunks, 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; Krunks, 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; Krunks, Malle; Piibe, Toomas; Mellikov, Enn Полупроводники и гетеропереходы : сборник статей 1987 / с. 41-43 : илл https://www.ester.ee/record=b1262177*est

Фотолюминесценция как метод оценки качества химически пульверизованных пленок

Erm, Ants; Krunks, Malle; Mellikov, Enn Применение металлоорганических соединений для получения неорганических покрытий и материалов : тезисы докладов V всесоюзного совещания, Горький, 8-10 сентября 1987 г. 1987 / с. 191-192 https://www.ester.ee/record=b2351386*est

Фотолюминесценция химически пульверизованных пленок

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

Фотопреобразователи CdS - CU₂S на основе пульверизованных пленок

Varema, Tiit; Iljina, Natalja; Krunks, 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

Krunks, 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

Krunks, 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

Krunks, 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

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