

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 ja AgNO₃ termilise lagunemise uurimine

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

Bulk and interface recombination in TiO₂/Sb₂Se₃ solar cells

Krautmann, Robert; Josepson, Raavo; Spalatu, Nicolae; Oja Acik, Ilona Graduate School of Functional Materials and Technology (GSFMT) Scientific Conference : abstracts 2022 / p. 28 [Graduate School of Functional Materials and Technology \(GSFMT\) Scientific Conference 2022](#)

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 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

Charge selective contact on ultra-thin In(OH)_xSy/Pb(OH)_xSy heterostructure prepared by SILAR

Gavrilov, S.; **Oja Acik, Ilona;** Lim, B. Physica status solidi (a) 2006 / 5, p. 1024-1029 : ill <https://onlinelibrary.wiley.com/doi/pdf/10.1002/pssa.200521468>

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](#)

Copper–zinc oxide heterojunction catalysts exhibiting enhanced photocatalytic activity prepared by a hybrid deposition method

Montero, Jose; Welearegay, Tesfalem; Thyr, Jakob; Stopfel, Henry; **Dedova, Tatjana; Oja Acik, Ilona;** Österlund, Lars RSC advances 2021 / p. 10224–10234 <https://doi.org/10.1039/d1ra00691f> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

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>

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](#)

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

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

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

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

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

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

Development of Bi₂Se₃ thin-film solar cells by close-spaced sublimation

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

Development of sb₂se₃ and sb₂s₃ solar cells by close-spaced sublimation

Krautmann, Robert; Spalatu, Nicolae; Oja Acik, Ilona GSFMT Scientific Conference 2023 : Tartu, 23-24 May, 2023 : abstracts 2023 <https://fmdk.ut.ee/programm-2023/>

Development of Sb₂Se₃ and Sb₂S₃ thin film solar cells by close-spaced sublimation = Sb₂Se₃ ja Sb₂S₃ õhukesekileliste päikesepatareide arendamine lähidistants-sublimatsiooni meetodil

Krautmann, Robert 2023 <https://doi.org/10.23658/taltech.41/2023> <https://digikogu.taltech.ee/et/Item/e7e64926-5d49-40ad-8b3a-e225ea034f7d> https://www.ester.ee/record=b5573313*est

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 spray-pyrolysis-synthesised TiO₂ thin films for photocatalytic degradation of volatile organic compounds in air = Pihustuspürolüüsiga sünteesitud TiO₂ õhukeste kilede väljatöötamine lenduvate orgaaniliste ühendite fotokatalüütiliseks lagundamiseks õhus

Sydorenko, Jekaterina 2023 <https://doi.org/10.23658/taltech.6/2023> <https://digikogu.taltech.ee/et/Item/56de388b-6916-458a-8db7-641bb9aca644> https://www.ester.ee/record=b5542586*est

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](#)

Doktorant, tööturg ja karjääriplaneerimine. Millal, kuhu, kuidas?

Oja Acik, Ilona Mente et Manu 2017 / lk. 22-23 : fot https://artiklid.elnet.ee/record=b2830868*est

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](#)

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 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 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 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

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

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

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

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

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

Juneja, Nimish; Daskeviciute-Geguziene, Sarune; Spalatu, Nicolae; Mandati, Sreekanth; Katerski, Atanas; Grzibovskis, Raitis; Vembris, Aivars; Karazhanov, Smagul; Getautis, Vytautas; Krunks, Malle; Oja Acik, Ilona Materials science in semiconductor processing 2024 / art. 107934 <https://doi.org/10.1016/j.mssp.2023.107934> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Enhanced photocatalytic activity of chemically deposited ZnO nanowires using doping and annealing strategies for water remediation

Gaffuri, Pierre; Dedova, Tatjana; Appert, Estelle; Danilson, Mati; Oja Acik, Ilona Applied surface science 2022 / art. 152323 <https://doi.org/10.1016/j.apsusc.2021.152323> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

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.; Szilagy, 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](#)

Erratum: Copper-zinc oxide heterojunction catalysts exhibiting enhanced photocatalytic activity prepared by a hybrid deposition method (RSC Advances (2021) 11 (10224–10234) DOI: 10.1039/D1RA00691F)

Montero, José; Welearegay, Tesfalem; Thyr, Jakob; Stopfel, Henry; Dedova, Tatjana; Oja Acik, Ilona; Österlund, Lars RSC Advances 2021 / p. 13635 <https://doi.org/10.1039/d1ra90096j> [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

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/acsaem.2c04097> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

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://fmdk.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 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-K ZrO₂ thin films by chemical spray pyrolysis method [Online resource]

Oluwabi, Abayomi Titilope; Oja Acik, Ilona; Katerski, Atanas; Krunks, Malle Tartu Ülikooli ASTRA projekt PER ASPERA : Funktsionaalsed materjalid ja tehnoloogiad : [7-8 märtsil 2018, Tallinn : teesid] GSFMT Scientific Conference 2018 : Tallinn, March 7-8, 2018 : abstracts 2018 / 1 p <http://fmdk.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

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

Implications of the negative capacitance observed at forward bias in nanocomposite and polycrystalline solar cells

Mora-Sero, Ivan; Bisquert, Juan; Oja Acik, Ilona Nano letters 2006 / 4, p. 640-650 <https://pubs.acs.org/doi/10.1021/nl052295q>

In₂S₃ kiled moodustumine pihustuspürolüüsi protsessis : termoanalüütiline uuring

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

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 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](#)

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; Gromöko, 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 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-situ deposition of gold nanoparticles onto different substrates by chemical spray pyrolysis

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

Interaction of Chrysosporium merdarium with titanium oxide surface

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

Interaction of fungus with titanium oxide surface

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

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>

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

Nanostructured solar cell based on spray pyrolysis deposited ZnO nanorod array

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

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

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

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

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

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

Dündar, Ibrahim; Oja Acik, Ilona; Mere, Arvo; Katerski, Atanas; Krunks, Malle; Mikli, Valdek Tartu Ülikooli ASTRA projekt PER

Niobium doped TiO₂ layers by chemical spray pyrolysis

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

Noble metal nanoparticles for improvement of fluorescent and photovoltaic materials

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

A novel deposition method to grow ZnO nanorods : spray pyrolysis

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

Optical and structural properties of TiO₂ thin films by chemical spray

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

Optimization of the Sb₂S₃ shell thickness in ZnO nanowire-based extremely thin absorber solar cells

Hector, Guislain; **Eensalu, Jako Siim; Katerski, Atanas; Oja Acik, Ilona; Kärber, Erki** Nanomaterials 2022 / art. 198
<https://doi.org/10.3390/nano12020198> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

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>

Photoelectrical properties of In(OH)xSy/PbS(O) structures deposited by SILAR on TiO₂

Oja Acik, Ilona; Belaidi, A.; Dolczik, L. Semiconductor science and technology 2006 / 4, p. 520-526 : ill
<https://iopscience.iop.org/article/10.1088/0268-1242/21/4/018>

Pihustuspürolüüsi meetodil sadestatud CuInS₂ kilede lähteainete terminline lagunemine

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

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 enhancement of light absorption in CuInS₂ layer doped by gold nanoparticles

Rep  n, Taavi; **Katerski, Atanas; Oja Acik, Ilona; K  rber, 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 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://fmdk.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, J  ri; 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; K  rber, Erki; Oja Acik, Ilona; Mere, Arvo; Mikli, Valdek; Krunks, Malle Thin solid films 2017 / p. 179-184 : ill <https://doi.org/10.1016/j.tsf.2017.01.014> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

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

Polivtseva, Svetlana; Katerski, Atanas; K  rber, Erki; Oja Acik, Ilona; Mere, Arvo; Mikli, Valdek; Krunks, Malle Tartu   likooli ASTRA projekt PER ASPERA : Funktsionaalsed materjalid ja tehnoloogiad : [7-8 m  rts 2017, Tartu : teesid] 2017 / [1] p <http://fmdk.ut.ee/teesid/>

The Promise of Operational Stability in Pnictogen-Based Perovskite-Inspired Solar Cells

Lamminen, Noora; Karlsson, Joshua; Kumar, Ramesh; Viswanath, N. S. M.; Lal, Snigdha; Fasulo, Francesca; Righetto, Marcello; Krishnaiah, Mokurala; **Katerski, Atanas; Oja Acik, Ilona** EES Solar 2025 <https://doi.org/10.1039/D5EL00029G> <https://pubs.rsc.org/en/content/articlepdf/2025/el/d5el00029g>

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://fmdk.ut.ee/wp-content/uploads/2020/01/GSFMT2020.pdf>

P  ikeseenergeetika materjalide uuringud Eestis

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

Research in solar cell technologies at Tallinn University of Technology

Melikov, Enn; Altosaar, Mare; Krunks, Malle; Krustok, J  ri; 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

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

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

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

Juneja, Nimish; Mandati, Sreekanth; Katerski, Atanas; Spalatu, Nicolae; Daskeviciute-Geguziene, Sarune; Vembris, Aivars;

Karazhanov, Smagul; Getautis, Vytautas; **Krunks, Malle; Oja Acik, Ilona** Sustainable Energy & Fuels 2022 / p. 3220-3229
<https://doi.org/10.1039/D2SE00356B> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

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

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

Sb₂S₃ thin film solar cells by ultrasonic spray pyrolysis

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

Sb₂S₃ thin films by ultrasonic spray 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

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://fntdk.ut.ee/wp-content/uploads/2020/01/GSFMT2020.p>

Spray pyrolysis deposition of Sn_xS_y 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

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>

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](#)

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>

Study of ZnO:In, Zn(O,S) and Sb:In thin films deposited by aerosol methods = Aerosoolmeetoditel sadestatud ZnO:In, Zn(O,S) ja Sb:In õhukeste kilede uurimine
Kriisa, Merike 2017 <https://digi.lib.ttu.ee/i/27676> https://www.ester.ee/record=b4676437*est

Study of the properties of TiO₂ thin films deposited by ultrasonic spray pyrolysis [Online resource]
Chen, Z.; Oja Acik, Ilona; Dündar, Ibrahim; Mere, Arvo Tartu Ülikooli ASTRA projekt PER ASPERA : Funktsionaalsed materjalid ja tehnoloogiad : [4.-5. veebr. 2019, Tartu : teesid] 2019 / 1 p <http://fmtdk.ut.ee/teesid-2019/>

Study on photocatalytic activity of ZnO nanoneedles, nanorods, pyramids and hierarchical structures obtained by spray pyrolysis method
Klauson, Deniss; Gromõko, Inga; Dedova, Tatjana; Pronina, Natalja; Kritševskaja, Marina; Budarnaja, Olga; Oja Acik, Ilona; Volobujeva, Olga; Sildos, Ilmo; Utt, Kathriin Materials science in semiconductor processing 2015 / p. 315-324 : ill
<https://doi.org/10.1016/j.mssp.2014.12.012> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Study on the properties of TiO₂ thin films deposited by ultrasonic spray pyrolysis
Chen, Zengjun; Oja Acik, Ilona; Dündar, Ibrahim; Mere, Arvo The 15th International Conference of Young Scientists on Energy Issues (CYSENI 2018) : 23-25 May 2018, Kaunas, Lithuania 2018 / p. X-416 - X-423 : ill
http://cyseni.com/archives/proceedings/Proceedings_of_CYSENI_2018.pdf

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

Synthesis control of charge separation at anatase TiO₂ thin films studied by transient surface photovoltage spectroscopy
Dittrich, Thomas; Sydorenko, Jekaterina; Spalatu, Nicolae; Nickel, Norbert H.; Mere, Arvo; Krunks, Malle; Oja Acik, Ilona ACS applied materials & interfaces 2022 / p. 43163-43170 <https://doi.org/10.1021/acsami.2c09032> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

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

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](#)

ZnO nanorods grown electrochemically on different metal oxide underlays

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

Gromõko, Inga 2018 <https://digi.lib.ttu.ee//?9962> https://www.ester.ee/record=b5141465*est

ZnO nanostructures by chemical spray for next generation solar cells

Krunk, 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; Krunk, 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://fntdk.ut.ee/teesid-2018/>

ZnO nanostruktuursed kihid keemilise pihustuspürolüüsi meetodil

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

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; Krunk, 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](#)

TalTech toob päikeselise tuleviku

digi.geenius.ee 2023 [TalTech toob päikeselise tuleviku](#)

TalTech toob päikeselise tuleviku

Ehitaja 2023 / lk. 34-35 : fot https://www.ester.ee/record=b1072123*est https://artiklid.elnet.ee/record=b2904074*est

TalTechi teadlased: viie aastaga laieneb päikeseenergeetika lahenduste valik märgatavalt

Oja Acik, Ilona digi.geenius.ee 2023 [TalTechi teadlased: viie aastaga laieneb päikeseenergeetika lahenduste valik märgatavalt](#)

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; Krunk, Malle GSFMT Scientific Conference 2021 : Tartu, June 14-15, 2021 : abstracts 2021 / P 45 https://fntdk.ut.ee/wp-content/uploads/2021/06/GSFMT_abstractbook_2021.pdf

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

Kriisa, Merike; Krunk, 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; Krunk, 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://fntdk.ut.ee/teesid/>

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

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

Thermal decomposition study of $\text{HAuCl}_4 \cdot 3\text{H}_2\text{O}$ and AgNO_3 as precursors for plasmonic metal nanoparticles

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

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

Oja Acik, Ilona; Madarasz, Janos; Krunks, 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 CuInS_2 thin films deposited by chemical spray pyrolysis

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

Thermoanalytical study of a precursor for In_2S_3 films by spray pyrolysis

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

Thermoanalytical study of precursors for In_2S_3 thin films deposited by spray pyrolysis

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

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

Polivtseva, Svetlana; Oja Acik, Ilona; 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 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 TiO_2 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

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/ii/79416> 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

TiO_2 thin films by ultrasonic spray pyrolysis

Chen, Zengjun; Dundar, Ibrahim; Oja Acik, Ilona; Mere, Arvo IOP conference series : materials science and engineering 2019 / art. 012006, 7 p. : ill <https://doi.org/10.1088/1757-899X/503/1/012006> Conference proceedings at Scopus Article at Scopus Article at WOS

TiO_2 thin films by ultrasonic spray pyrolysis as photocatalytic material for air purification

Dündar, Ibrahim; Kritševskaja, Marina; Katerski, Atanas; Oja Acik, Ilona Royal Society open science 2019 / art. 181578, 12 p. : ill <https://doi.org/10.1098/rsos.181578> Journal metrics at Scopus Article at Scopus Journal metrics at WOS Article at WOS

TiO_2 thin films by ultrasonic spray pyrolysis for photocatalytic air-cleaning applications = TiO_2 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>

Titaandioksiidi kiled sool-geeli meetodil

Oja Acik, Ilona Inseneeria 2008 / 3, lk. 54-55 : ill https://artiklid.elnet.ee/record=b2041667*est

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://fmdtk.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/>

Uued inimesed ja positsioonid

Läänelaid, Siim; Otto, Tauno; Krumme, Andres; Oja Acik, Ilona; Kallaste, Ants; Tomberg, Hanno Mente et Manu 2020 / lk. 54-58 : portr <https://dea.digar.ee/cgi-bin/dea?a=is&oid=AKmenteetmanu202011&type=staticpdf>

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