

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

Gopi, Sajeesh Vadakkedath; Spalatu, Nicolae; Katerski, Atanas; Kulicek, Jaroslav; Razek, Bohuslav; Ukrantsev, Egor; Barinkova, Marketa Šlapal; Zoppi, Guillaume; **Krunks, Malle; Oja Acik, Ilona** Journal of alloys and compounds 2024 / art. 176175 <https://doi.org/10.1016/j.jallcom.2024.176175>

Analysis of grain orientation and defects in Sb₂Se₃ solar cells fabricated by close-spaced sublimation

Krautmann, Robert; Spalatu, Nicolae; Gunder, Rene; Abou-Ras, Daniel; Unold, Thomas; Schorr, Susan; **Oja Acik, Ilona; Krunks, Malle** GSFMT Scientific Conference 2021 : Tartu, June 14-15, 2021 : abstracts 2021 / P 17 https://fntdk.ut.ee/wp-content/uploads/2021/06/GSFMT_abstractbook_2021.pdf

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

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

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

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

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

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

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. Symposion 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

Rep n, Taavi; Dolgov, Leonid; **Katerski, Atanas; Oja Acik, Ilona; K rber, 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 = P ikesepatareides rakendatavate Sb₂Se₃  hukeste kilede sadestamine ultrahelipihustusp rol  si 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

K rber, 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

Beglyryan, 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  hukesekileliste p ikesepatareide arendamine l hidistants-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>

Development of spray-pyrolysis-synthesised TiO₂ thin films for photocatalytic degradation of volatile organic compounds in air = Pihustusp rol  siga s nteesitud TiO₂  hukeste kilede v ljat  tamine lenduvate orgaaniliste  hendite fotokatal  tiliseks lagundamiseks  hus

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, t  turg ja karj  riplaneerimine. 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

K rber, 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>

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://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 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://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 rakendamise 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

Annett, 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.nanoqe.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 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; Gromōko, 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 ASPERA : Funktsionaalsed materjalid ja tehnoloogiad : [7-8 märts 2017, Tartu : teesid] 2017 / [1] p <http://fntdk.ut.ee/teesid/>

Niobium doped TiO₂ layers by chemical spray pyrolysis

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

Noble metal nanoparticles for improvement of fluorescent and photovoltaic materials

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

A novel deposition method to grow ZnO nanorods : spray pyrolysis

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

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](#)

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://fmdtk.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 termiline 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

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 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](#)

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](#) [Article at WOS](#)

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

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

Päikeseenergeetika materjalide uuringud Eestis
Kauk-Kuusik, Marit; Grossberg, Maarja; Oja Acik, Ilona; Krunks, Malle *Teadusmõtte 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
Mellikov, 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

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

Sb2S3 thin films by ultrasonic spray pyrolysis of antimony ethyl xanthate

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

Sb2S3 thin-film solar cells fabricated from an antimony ethyl xanthate based precursor in air

Eensalu, Jako Siim; Mandati, Sreekanth; Don, Christopher H.; Finch, Harry; Dhanak, Vinod R.; Major, Jonathan D.; Grzibovskis, Raitis; Tamm, Aile; Ritslaid, Peeter; Josepson, Raavo; Käämbre, Tanel; Vembris, Aivars; Spalatu, Nicolae; Krunks, Malle; Oja Acik, Ilona ACS applied materials & interfaces 2023 / p. 42622-42636 <https://doi.org/10.1021/acsami.3c08547> Journal metrics at Scopus Article at Scopus Journal metrics at WOS Article at WOS

Sb2S3 õhukesed absorberkihid pool-läbipaistvatele päikesepatareidele

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

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

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

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

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

Solar cell on nanostructured ZnO by spray pyrolysis deposition

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

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

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

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/?7676> 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://fmdk.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; Krunk, 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; Krunk, 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; Krunk, 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; Krunk, 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://fmdk.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; Krunk, 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; Krunk, 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; Krunk, 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; 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 : kasvamine, pinnaomadused, fotokatalüütiline võimekus

Gromõko, Inga 2018 <https://digi.lib.ttu.ee/i/?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; 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://fmdk.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/NiO heterostructures with enhanced photocatalytic activity obtained by ultrasonic spraying of a NiO shell onto ZnO nanorods

Chen, Zengjun; Dedova, Tatjana; Spalatu, Nicolae; Maticiuc, 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](#)

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; Krunks, Malle GSFMT Scientific Conference 2021 : Tartu, June 14-15, 2021 : abstracts 2021 / P 45 https://fmdk.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; 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://fmdk.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 tris(O-ethylthiocarbonato)-antimony(III) - a single-source precursor for antimony sulfide thin films

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

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

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

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

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

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 CuInS2 thin films deposited by chemical spray pyrolysis

Oja Acik, Ilona; Otto, Kairi; Tõnsuaadu, Kaia; Katerski, Atanas; Niinistö, L.; **Krunks, Malle** ESTAC10 : 10th European

Thermoanalytical study of a precursor for In₂S₃ 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 In₂S₃ 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 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](#)

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/i/?9416> https://www.eester.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 thin films by ultrasonic spray pyrolysis

Chen, Zengjun; Dündar, 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](#)

TiO₂ thin films by ultrasonic spray pyrolysis as photocatalytic material for air purification

Dündar, Ibrahim; Kriševskaja, 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](#)

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.eester.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; Kriševskaja, 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/>

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