

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; Ukraintsev, 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](#)

Anisotroopsetel õhukesekilelistel absorbermaterjalidel põhinevad päikesepatareid : disain ja säästlike tehnoloogiate arendus

Oja Acik, Ilona; Krunks, Malle; Spalatu, Nicolae; Katerski, Atanas Eesti Vabariigi preemiad 2025 : teadus. F. J. Wiedemanni keeleauhind. Sport. Kultuur. Haridus 2025 / p. 56-75 <https://doi.org/10.3176/evp.2025.05>

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

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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

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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](#)

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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)

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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

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

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

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

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

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

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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

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

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Effect of the titanium isopropoxide : acetylacetone molar ratio on the photocatalytic activity of TiO₂ thin films
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EMI-transparent SB2S3 solar cells with fluorene-based enamine as hole transport material
Juneja, Nimish; Mandati, Sreekanth; Daskeviciute-Geguziene, Sarune; Vembris, Aivars; Getautis, Vytautas; Krunks, Malle; Oja Acik, Ilona Graduate School of Functional Materials and Technology (GSFMT) Scientific Conference : abstracts 2022 / 21 l. [Graduate School of Functional Materials and Technology \(GSFMT\) Scientific Conference 2022](#)

Employment of dopant-free fluorene-based enamines as innovative hole transport materials to boost the transparency and performance of Sb2S3 based solar cells
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Enhanced photocatalytic activity of ZnO nanorods by surface treatment with H₂AuCl₄ : synergic effects through an electron scavenging, plasmon resonance and surface hydroxylation
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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
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Extremely thin absorber layer nanostructured solar cell by chemical spray pyrolysis

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4.9 % efficient Sb₂S₃ solar cells from semi-transparent absorbers with fluorene-based thiophene terminated hole conductors

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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

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In₂S₃ kiled moodustumine pihustuspürolüüsi protsessis : termoanalüütiline uuring

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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

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

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

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Interaction of Chrysosporium merdarium with titanium oxide surface

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

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