

## **An alternative chlorine-assisted optimization of CdS/Sb<sub>2</sub>Se<sub>3</sub> 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 fill factor losses in thin film CdS/CdTe photovoltaic devices**

Potlog, Tamara; Spalatu, Nicolae; Ciobanu, V.; **Hiie, Jaan; Mere, Arvo; Mikli, Valdek; Valdna, Vello** Moldavian journal of the physical sciences 2010 / 3/4, p. 363-367 [https://ibn.idsi.md/sites/default/files/imag\\_file/Analysis%20of%20fill%20factor%20losses%20in%20thin%20film%20CdSCdTe%20photovoltaic%20devices.pdf](https://ibn.idsi.md/sites/default/files/imag_file/Analysis%20of%20fill%20factor%20losses%20in%20thin%20film%20CdSCdTe%20photovoltaic%20devices.pdf)

## **Analysis of grain orientation and defects in Sb<sub>2</sub>Se<sub>3</sub> 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](https://fntdk.ut.ee/wp-content/uploads/2021/06/GSFMT_abstractbook_2021.pdf)

## **Analysis of grain orientation and defects in Sb<sub>2</sub>Se<sub>3</sub> 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](#)

## **Analysis of optical properties and structure of GaTe - CdTe nanocomposite**

Caraman, Iuliana; Untila, Dumitru; Evtodiev, Igor; Canter, Valeriu; **Spalatu, Nicolae;** Rusu, Dragos; Luchian, Efimia; Rotaru, Irina Chalcogenide letters 2015 / p. 683-692 : ill [https://chalcogen.ro/683\\_Caraman.pdf](https://chalcogen.ro/683_Caraman.pdf) [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

## **Asymmetric NDI electron transporting SAM materials for application in photovoltaic devices**

Svirskaitė, Lauryna Monika; **Mandati, Sreekanth; Spalatu, Nicolae;** Malinauskienė, Vida; Karazhanov, Smagul; Getautis, Vytautas; Malinauskas, Tadas Synthetic metals 2022 / art. 117214 <https://doi.org/10.1016/j.synthmet.2022.117214> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

## **Benchmarking Inorganic Thin-Film Photovoltaics Technologies for Indoor Applications**

Placidi, Marcel; Torrens, Arnau; Li-Kao, Zacharie Jehl; Lopez-Garcia, Alex; Segura, Oriol; Gong, Yuancai; Jimenez-Arguijo, Alex; Cano, Ivan; **Spalatu, Nicolae; Oja, Ilona** Solar RRL 2025 / art. 2500030 <https://doi.org/10.1002/solr.202500030> <https://onlinelibrary.wiley.com/doi/epdf/10.1002/solr.202500030>

## **Bulk and interface recombination in TiO<sub>2</sub>/Sb<sub>2</sub>Se<sub>3</sub> solar cells**

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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;** Maticiuc, 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](#)

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**Cost-effective fluorene and thiophene containing hole conductors towards semi-transparent Sb<sub>2</sub>S<sub>3</sub> 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>

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**Development of Bi<sub>2</sub>S<sub>3</sub> thin film solar cells by close-spaced sublimation and analysis of absorber bulk defects via in-depth photoluminescence analysis**

**Koltsov, Mykhailo; Gopi, Sajeesh Vadakkedath; Raadik, Taavi; Krustok, Jüri; Josepson, Raavo;** Grzibovskis, Raitis; Vembris, Aivars; **Spalatu, Nicolae** Solar energy materials and solar cells 2023 / art. 112292 <https://doi.org/10.1016/j.solmat.2023.112292> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

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**Development of spray pyrolysis-synthesised Bi<sub>2</sub>O<sub>3</sub> 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](#)

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**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](#)

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**4.9 % efficient Sb<sub>2</sub>S<sub>3</sub> solar cells from semi-transparent absorbers with fluorene-based thiophene terminated hole conductors**

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**Low processing temperatures explored in Sb<sub>2</sub>S<sub>3</sub> solar cells by close-spaced sublimation and analysis of bulk and interface related defects**

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**Optical and photoelectric properties of nanolamellar structures obtained by thermal annealing of InSe plates in Zn vapours**

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**Properties of the CdCl<sub>2</sub> air-annealed CSS CdTe thin films**

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