

**Aqueous photocatalytic degradation of selected micropollutants by Pd-modified titanium dioxide**

**Klauson, Deniss; Šakarašvili, Marko; Pronina, Natalja; Kritševskaja, Marina; Kärber, Erki; Mikli, Valdek** European Conference on Environmental Applications of Advanced Oxidation Processes : 21-24 October 2015, Athens, Greece : conference program and book of abstracts 2015 / p. 126 : ill

**Aqueous photocatalytic degradation of selected micropollutants by Pd-modified titanium dioxide**

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**Aqueous photocatalytic degradation of selected micropollutants by Pd-modified titanium dioxide in three photoreactor types**

**Klauson, Deniss; Šakarašvili, Marko; Pronina, Natalja; Kritševskaja, Marina; Kärber, Erki; Mikli, Valdek** Environmental technology 2017 / p. 860-871 : ill <https://doi.org/10.1080/09593330.2016.1214185> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

**The band structure of CuInTe<sub>2</sub> studied by optical reflectivity**

**Yakushev, Michael V.; Mudrov, Andrej; Kärber, Erki** Applied physics letters 2019 / art. 062103, 4 p. : ill  
<https://doi.org/10.1063/1.5079971> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

**Characterization of ZnO-nanorod/In<sub>2</sub>S<sub>3</sub>/CuInS<sub>2</sub> solar cell, and properties of the constituent layers**

**Kärber, Erki** TÜ ja TTÜ doktorikool "Funktsionaalsed materjalid ja tehnoloogiad" : 04.-05. märts 2014, Tartu 2014 / [1] p

**Comparative study of SnS recrystallization in molten CdI<sub>2</sub>, SnCl<sub>2</sub> and KI**

**Timmo, Kristi; Kauk-Kuusik, Marit; Pilvet, Maris; Mikli, Valdek; Kärber, Erki; Raadik, Taavi; Leinemann, Inga; Altosaar, Mare; Raudoja, Jaan** Physica status solidi (c) 2016 / p. 8-12 : ill <https://doi.org/10.1002/pssc.201510082> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

**Corrigendum to "Screening and optimization of processing temperature for Sb<sub>2</sub>Se<sub>3</sub> 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](#)

**CuInS<sub>2</sub> 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](#)

**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 sprayed CuInS<sub>2</sub> thin film absorber for nanostructured solar cell**

**Katerski, Atanas; Kärber, Erki; Krunks, Malle; Mikli, Valdek; Mere, Arvo** Materials Research Society symposium proceedings 2012 [https://www.researchgate.net/publication/271903084\\_Development\\_of\\_sprayed\\_CuInS2\\_thin\\_film\\_absorber\\_for\\_nanostructured\\_solar\\_cell](https://www.researchgate.net/publication/271903084_Development_of_sprayed_CuInS2_thin_film_absorber_for_nanostructured_solar_cell)

**Effect of H<sub>2</sub>S treatment on properties of CuInS<sub>2</sub> 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 spray rate on the properties of chemically sprayed ZnO:In thin films**

**Kriisa, Merike; Krunks, Malle; Kärber, Erki; Kukk, Mart; Mikli, Valdek; Mere, Arvo** Journal of nanomaterials 2013 / p. 1-9 : ill  
<https://doi.org/10.1155/2013/423632> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

**Electrical characterization of all-layers-sprayed solar cell based on ZnO nanorods and extremely thin CIS absorber**

**Kärber, Erki; Katerski, Atanas; Krunks, Malle** Solar energy 2013 / p. 48-58 : ill <https://doi.org/10.1016/j.solener.2013.01.020> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

**Electrical characterization of nanostructured CIS solar cell prepared by chemical spray pyrolysis**

**Kärber, Erki; Abass, Aimi; Khelifi, Samira; Burgelman, Marc; Mere, Arvo; Katerski, Atanas; Krunks, Malle** NEXTGEN NANO PV : book of abstracts 2013 / p. 80-81

**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

#### **Growth and properties of ZnO films on polymeric substrate by spray pyrolysis method**

**Kriisa, Merike; Kärber, Erki; Krunks, Malle; Mikli, Valdek; Unt, Tarmo; Kukk, Mart; Mere, Arvo** Thin solid films 2014 / p. 87-92 : ill <https://doi.org/10.1016/j.tsf.2013.05.150> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

#### **Impact of vacuum and nitrogen annealing on HVE SnS photoabsorber films**

**Revathi, Naidu; Looits, Mihkel; Kärber, Erki; Volobujeva, Olga; Raudoja, Jaan; Maticiuc, Natalia; Bereznev, Sergei; Mellikov, Enn** Materials science in semiconductor processing 2017 / p. 252-257 : ill <https://doi.org/10.1016/j.mssp.2017.08.004> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

#### **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

#### **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](#)

#### **Läbipaistvate ja elektrit juhtivate ZnO kilede valmistamine keemilise pihustamise meetodil**

**Vent, Merike; Kärber, Erki; Volobujeva, Olga; Krunks, Malle** XXXI Eesti keemiapäevad : [28. aprill 2010, Tallinn] : teaduskonverentsi teesid = 31st Estonian Chemistry Days : abstracts of scientific conference 2010 / lk. 82

#### **Modification of light absorption in thin CuInS<sub>2</sub> 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](#)

#### **Optimization of the Sb<sub>2</sub>S<sub>3</sub> 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](#)

#### **Photoluminescence of spray pyrolysis deposited ZnO nanorods**

**Kärber, Erki; Raadik, Taavi; Dedova, Tatjana; Krustok, Jüri; Mere, Arvo; Mikli, Valdek; Krunks, Malle** Nanoscale research letters 2011 / [7] p.: ill

#### **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 CuInS<sub>2</sub> 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

#### **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/>

#### **Properties of ZnO-nanorod/In<sub>2</sub>Se<sub>3</sub>/CuInS<sub>2</sub> solar cell and the constituent layers deposited by chemical spray method =**

**Keemilise pihustuse meetodil sadestatud ZnO-nanovarras/InSI/CuInSI päikesepatarei ja selle koostisosade omadused**  
Kärber, Erki 2014 [https://www.ester.ee/record=b3073760\\*est](https://www.ester.ee/record=b3073760*est)

**Raman spectroscopic study of In<sub>2</sub>S<sub>3</sub> films prepared by spray pyrolysis**

Kärber, Erki; Otto, Kairi; Katerski, Atanas; Mere, Arvo; Krunks, Malle Materials science in semiconductor processing 2014 / p. 137-142 : ill <https://doi.org/10.1016/j.mssp.2013.10.007> Journal metrics at Scopus Article at Scopus Journal metrics at WOS Article at WOS

**Sb<sub>2</sub>S<sub>3</sub> 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>

**SB<sub>2</sub>S<sub>3</sub> 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://fmt.dk.ut.ee/wp-content/uploads/2020/01/GSFMT2020.pdf>

**Screening and optimization of processing temperature for Sb<sub>2</sub>Se<sub>3</sub> 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 Sb<sub>2</sub>S<sub>3</sub> 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

**Study of structural and optoelectronic properties of Cu<sub>2</sub>Zn(Sn<sub>1-x</sub>Ge<sub>x</sub>)Se<sub>4</sub> (x = 0 to 1) alloy compounds**

Grossberg, Maarja; Timmo, Kristi; Raadik, Taavi; Kärber, Erki; Mikli, Valdek; Krustok, Jüri Thin solid films 2015 / p. 176-179 : ill <https://doi.org/10.1016/j.tsf.2014.10.055> Journal metrics at Scopus Article at Scopus Journal metrics at WOS Article at WOS

**Study of Zn(O,S) films grown by aerosol assisted chemical vapour deposition and their application as buffer layers in Cu(In,Ga)(S,Se)<sub>2</sub> solar cells**

Kriisa, Merike; Saez-Araoz, Rodrigo; Kärber, Erki; Krunks, Malle Solar energy 2015 / p. 562-568 : ill <https://doi.org/10.1016/j.solener.2015.02.046> Journal metrics at Scopus Article at Scopus Journal metrics at WOS Article at WOS

**ZnO nanostructures by chemical spray for next generation solar cells**

Krunks, Malle; Dedova, Tatjana; Oja Acik, Ilona; Kriisa, Merike; Mikli, Valdek; Katerski, Atanas; Kärber, Erki; Mere, Arvo NEXTGEN NANO PV : book of abstracts 2013 / p. 31-32

**ZnO nanowires for solar cells : a comprehensive review**

Consonni, Vincent; Briscoe, Joe; Kärber, Erki Nanotechnology 2019 / art. 362001, 41 p : ill <https://doi.org/10.1088/1361-6528/ab1f2e> Journal metrics at Scopus Article at Scopus Journal metrics at WOS Article at WOS

**ZnO thin films as transparent conductive oxides by chemical spray pyrolysis**

Vent, Merike; Annert, Katre; Kärber, Erki; Krunks, Malle Proceedings of CYSENI 2010 : the 7th Annual Conference of Young Scientists on Energy Issues : May 27-28, 2010, Kaunas, Lithuania 2010 / p. 399-407

**ZnO/TiO<sub>2</sub>/Sb<sub>2</sub>S<sub>3</sub> core-shell nanowire heterostructure for extremely thin absorber solar cells**

Parize, Romain; Katerski, Atanas; Gromöko, Inga; Rapenne, Laetitia; Roussel, Hervé; Kärber, Erki; Appert, Estelle; Krunks, Malle; Consonni, Vincent Journal of physical chemistry C 2017 / p. 9672-9680 : ill <https://doi.org/10.1021/acs.jpcc.7b00178> Journal metrics at Scopus Article at Scopus Journal metrics at WOS Article at WOS

**Template synthesis of titanium dioxide coatings and determination of their photocatalytic activity by aqueous oxidation of humic acid**

Budarnaja, Olga; Klauson, Deniss; Dedova, Tatjana; Kärber, Erki; Viljus, Mart; Preis, Sergei Kinetics and catalysis 2014 / p. 688-694 : ill <https://doi.org/10.1134/S0023158414050036> Journal metrics at Scopus Article at Scopus Journal metrics at WOS Article at WOS

**The effect of growth temperature and spraying rate on the properties of ZnO:In films**

Kriisa, Merike; Kärber, Erki; Unt, Tarmo; Mere, Arvo; Krunks, Malle Physica status solidi (c) 2012 / p. 1604-1606 : ill <https://onlinelibrary.wiley.com/doi/pdf/10.1002/pssc.201200008>

**The effect of laser fluences on the structural and optoelectronic properties of Zn(O,Se) films**

Abdalla, Akram; Kärber, Erki; Mikli, Valdek; Bereznev, Sergei Materials science in semiconductor processing 2021 / art. 105429, 5 p. : ill <https://doi.org/10.1016/j.mssp.2020.105429> Journal metrics at Scopus Article at Scopus Journal metrics at WOS Article at WOS

**The effect of tartaric acid in the deposition of Sb<sub>2</sub>S<sub>3</sub> 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 Sb<sub>2</sub>S<sub>3</sub> 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://fntdk.ut.ee/teesid/>

**Uniform Sb<sub>2</sub>S<sub>3</sub> 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 Sb<sub>2</sub>S<sub>3</sub> 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://fntdk.ut.ee/teesid-2019/>