

Adhesion of single-walled carbon nanotube thin films with different materials

Rajanna, Pramod M.; Luchkin, Sergey; Larionov, Konstantin; Grebenko, Artem; Popov, Zakhar; Sorokin, Pavel; **Danilson, Mati; Bereznev, Sergei**; Lund, Peter D.; Nasibulin, Albert The journal of physical chemistry letters 2020 / p. 504–509
<https://doi.org/10.1021/acs.jpcllett.9b03552> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Alumina/graphene/Cu hybrids as highly selective sensor for simultaneous determination of epinephrine, acetaminophen and tryptophan in human urine

Taleb, Masoud; Ivanov, Roman; Bereznev, Sergei; Kazemi, Sayed Habib; **Hussainova, Irina** Journal of electroanalytical chemistry 2018 / p. 184-192 : ill <https://doi.org/10.1016/j.jelechem.2018.06.013> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Amorphous Zn(O,Se) buffer layer for Cu(In,Ga)Se₂ thin film solar cells

Abdalla, Akram; Danilson, Mati; Oueslati, Souhaib; Pilvet, Maris; Bereznev, Sergei Materials science in semiconductor processing 2021 / art. 105862 <https://doi.org/10.1016/j.mssp.2021.105862> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Annealing effect for SnS thin films prepared by high-vacuum evaporation

Revathi, Naidu; Bereznev, Sergei; Looits, Mihkel; Raudoja, Jaan; Lehner, Julia; Gurevits, Jelena; Traksmas, Rainer; Mikli, Valdek; Mellikov, Enn; Volobujeva, Olga Journal of vacuum science & technology A 2014 / p. 061506-1 - 061506-6 : ill
<https://doi.org/10.1116/1.4896334> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Atomic structure and dynamics of unusual and wide-gap phase-change chalcogenides : a GeTe₂ case

Usuki, Takeshi; Benmore, Chris J.; Tverjanovich, Andrey; **Bereznev, Sergei**; Khomenko, Maxim; Sokolov, Anton; Fontanari, Daniele; Ohara, Koji; Bokova, Maria; Kassem, Mohammad; Bychkov, Eugene Physica status solidi - rapid research letters 2024 / art. 2300482
<https://doi.org/10.1002/pssr.202300482> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Atomic structure, dynamics, changes in chemical bonding and semiconductor-metal transition in Sb₂Se₃ : A remarkable material for quantum networks and energy applications

Kassem, Mohammad; Benmore, Chris J.; Tverjanovich, Andrey; Bokova, Maria; Khomenko, Maxim; Usuki, Takeshi; Sokolov, Anton; Fontanari, Daniele; **Bereznev, Sergei**; Ohara, Koji ACS applied materials & interfaces 2025 / p. 17075-17095
<https://doi.org/10.1021/acsami.5c00008>

Atypical phase-change alloy Ga₂Te₃ : atomic structure, incipient nanotectonic nuclei, multilevel writing

Tverjanovich, Andrey; Khomenko, Maksym; Benmore, Chris; **Bereznev, Sergei**; Sokolov, Anton; Fontanari, Daniele; Kiselev, Aleksei; Lotin, Andrey; Bychkov, Eugene Journal of materials chemistry C 2021 / p. 17019-17032 <https://doi.org/10.1039/d1tc03850h> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Carrier collection losses in interface passivated amorphous silicon thin-film solar cells

Neumüller, A.; **Bereznev, Sergei**; Ewert, M.; **Volobujeva, Olga** Applied physics letters 2016 / p. 043903-1 - 043903-4 : ill
<https://doi.org/10.1063/1.4959995> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

CdSe nanofiber and nanohorn structures on ITO substrates fabricated by electrochemical deposition

Kois, Julia; Gurevits, Jelena; Bereznev, Sergei; Volobujeva, Olga; Öpik, Andres; Mellikov, Enn Applied surface science 2013 / p. 982-985 : ill <https://doi.org/10.1016/j.apsusc.2013.07.056> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Chemical sensors based on conductive polymers

Bereznev, Sergei; Söritski, Vitali; Öpik, Andres Kemia 95 : Finnish Chemical Congress and Exhibition and Nordic Polymer Meeting 1995, Helsinki, 14-16 Nov., 1995 : abstracts 1995 / p. 49-50

Comparative study of perhydropolysilazane protective films

Shmagina, Elizaveta; Danilson, Mati; Mikli, Valdek; Bereznev, Sergei Surface engineering 2022 / p. 769-777 : ill
<https://doi.org/10.1080/02670844.2022.2155445> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Comparative study of siox layers deposition using thermal and uv-assisted curing of perhydropolysilazane

Shmagina, Elizaveta; Bereznev, Sergei GSFMT Scientific Conference 2021 : Tartu, June 14-15, 2021 : abstracts 2021 / P 50
https://fntdk.ut.ee/wp-content/uploads/2021/06/GSFMT_abstractbook_2021.pdf

Comparative study of thin films prepared by different curing methods of perhydropolysilazane

Shmagina, Elizaveta; Danilson, Mati; Mikli, Valdek; Bereznev, Sergei Graduate School of Functional Materials and Technology (GSFMT) Scientific Conference : abstracts 2022 / art. 54 [Graduate School of Functional Materials and Technology \(GSFMT\) Scientific Conference 2022](#)

Conductive polymer back contact in CdTe based solar cell

Bereznev, Sergei; Kois, Julia; Volobujeva, Olga; Öpik, Andres EMRS-2009 Spring Meeting, Strasbourg, France, 8-12 of June 2009, Symposium A 2009 / p. 25

Conductive polymer PEDOT:PSS back contact for CdTe solar cell

Jarkov, Aleksandr; Bereznev, Sergei; Laes, Kristjan; Volobujeva, Olga; Traksmaa, Rainer; Öpik, Andres; Mellikov, Enn Thin solid films 2011 / p. 7449-7452 : ill

Conductive polymers as active materials for environmental sensors

Sõritski, Vitali; Bereznev, Sergei; Öpik, Andres Proceedings of the Estonian Academy of Sciences. Chemistry 1998 / 2, p. 60-72: ill

Conductive polymers as active materials for environmental sensors

Bereznev, Sergei; Sõritski, Vitali; Öpik, Andres; Idla, Katrin International Society of Electrochemistry, 47th Annual Meeting : abstracts : Veszprém & Balatonfüred, Hungary, September 1-6, 1996 1996 / p. P2c-10

Constant phase element response of impedance spectra of high vacuum evaporated CuIn₃Se₅ photoabsorber layers

[Electronic resource]

Laes, Kristjan; Bereznev, Sergei; Land, Raul; Öpik, Andres International Materials Research Congress IMRC XIX, Cancun, Mexico – August 2010, Symposium 15 – Photovoltaics, Solar energy materials and technologies : abstracts 2010 / p. 21 [CD-ROM]

Corrigendum to “Fabrication of novel SiO_xNy/SWCNT laminate-type composite protective coating using low-temperature approach” [Ceram. Int. 50 (2024) 34312–34320, (S0272884224026634), (10.1016/j.ceramint.2024.06.250)]

Shmagina, Elizaveta; Volobujeva, Olga; Nasibulin, Albert; Bereznev, Sergei Ceramics international 2025 / art. 48887

<https://doi.org/10.1016/j.ceramint.2024.09.158> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

CZTS monograin powders and thin films

Mellikov, Enn; Meissner, Dieter; Altosaar, Mare; Kauk, Marit; Krustok, Jüri; Öpik, Andres; Volobujeva, Olga; Iljina, Julia; Timmo, Kristi; Klavina, J.; Raudoja, Jaan; Grossberg, Maarja; Varema, Tiit; Muska, Katri; Ganchev, Maxim; Bereznev, Sergei; Danilson, Mati Advanced materials research 2011 / p. 8-13

Cu₂ZnSnSe₄ films by selenization of Sn-Zn-Cu sequential films

Volobujeva, Olga; Raudoja, Jaan; Mellikov, Enn; Grossberg, Maarja; Bereznev, Sergei; Traksmaa, Rainer Journal of physics and chemistry of solids 2009 / p. 567-570 : ill

Cu₂ZnSnSe₄ films from binary precursors

Volobujeva, Olga; Mellikov, Enn; Timmo, Kristi; Danilson, Mati; Bereznev, Sergei Journal of Renewable and Sustainable Energy 2013 / art. 031618 <https://doi.org/10.1063/1.4811242> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Cu₂ZnSnSe₄ thin films by selenization of stacked binaries

Volobujeva, Olga; Mellikov, Enn; Bereznev, Sergei; Raudoja, Jaan; Otto, Kairi; Pilvet, Maris; Raadik, Taavi E-MRS Spring Meeting 2012 - Symposium B : Strasbourg, France, May 14-18, 2012 : program and abstract book 2012 / p. 20

Cu₂ZnSnSe₄ thin films produced by selenization of Cu-Zn-Sn composition precursor films

Volobujeva, Olga; Mellikov, Enn; Bereznev, Sergei; Raudoja, Jaan; Öpik, Andres; Raadik, Taavi Materials Challenges in Alternative and Renewable Energy: a collection of papers presented at the Materials Challenges in Alternative and Renewable Energy Conference February 21-24, 2010, Cocoa Beach, Florida 2011 / p. 257-263

Cu-In and Cu-Zn-Sn films as precursors for production of CuInSe₂ and Cu₂ZnSnSe₄ thin films

Volobujeva, Olga; Mellikov, Enn; Raudoja, Jaan; Bereznev, Sergei; Pilvet, Maris Thin-film compound semiconductor photovoltaics - 2009 2009 / p. M05-40

CuInS₂/PEDOT photovoltaic structure

Bereznev, Sergei; Konovalov, Igor; Kois, Julia; Mellikov, Enn; Öpik, Andres Organic and Polymeric Materials and Devices : symposium held April 22-25, 2003, San Francisco, California, USA 2003 / p. 243-248 : ill <https://link.springer.com/article/10.1557/PROC-771-L7.17>

CuInS₂-Poly(3-(ethyl-4-butanoate)thiophene) nanocomposite solar cells : preparation by an in situ formation route, performance and stability issues

Maiera, Eugen; Ratha, Thomas; Haas, Wernfried; Werzer, Oliver; Saf, Robert; Hofer, Ferdinand; Meissner, Dieter; Volobujeva, Olga; Bereznev, Sergei; Mellikov, Enn; Amenitsch, Heinz; Resel, Roland; Trimmel, Gregor Solar energy materials and solar cells 2011 / p. 1354–1361 : ill

CuInSe₂ thin films deposited by UV laser ablation

Tverjanovich, Andrey; Borisov, Evgeny N.; Vasilieva, E.S.; Tolochko, O.V.; Vahhi, I.E.; Bereznev, Sergei; Tveryanovich, Yuri S. Solar energy materials & solar cells 2006 / p. 3624-3632 : ill

CuInSe₂/polyaniline photovoltaic structure

Bereznev, Sergei; Kois, Julia; Mellikov, Enn; Öpik, Andres Proceedings of Baltic Polymer Symposium 2001 : Oct. 11-12 in Tallinn 2001 / p. 148-154 : ill

CuInSe₂/polypyrrole photovoltaic structure prepared by electrodeposition

Bereznev, Sergei; Kois, Julia; Mellikov, Enn; Öpik, Andres; Meissner, Dieter Seventeenth European Photovoltaic Solar Energy Conference : proceedings of the International Conference held in Munich, Germany, 22-26 October, 2001. Volume I 2002 / p. 160-163 : ill

CuInSe₂/polypyrrole (polyaniline) photovoltaic structures

Bereznev, Sergei; Kois, Julia; Mellikov, Enn; Öpik, Andres; Meissner, Dieter Proceedings of the 14th Workshop on Quantum Solar Energy Conversion : QUANTSOL 2002, March 17-23, 2002, Rauris, Österreich 2002 / [2] p. : ill

Decoding the atomic structure of Ga₂Te₅ pulsed laser deposition films for memory applications using diffraction and first-principles simulations

Tverjanovich, Andrey; Benmore, Chris J.; Khomenko, Maxim; Sokolov, Anton; Fontanari, Daniele; **Bereznev, Sergei; Bokova, Maria; Kassem, Mohammad; Bychkov, Eugene** Nanomaterials 2023 / art. 2137 <https://doi.org/10.3390/nano13142137> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Development of silicon oxynitride nanocomposites with single-walled carbon nanotubes as protective coatings for solar cells = Üheseinaliste süsiniknanotorudega ränioksünitriidist nanokomposiitmaterjalide arendamine päikesepatareide kaitsekateteks

Shmagina, Elizaveta 2025 https://www.ester.ee/record=b5739646*est <https://digikogu.taltech.ee/et/item/5b38d0d4-d585-496f-b18e-de06aae6a6da> <https://doi.org/10.23658/taltech.20/2025>

Development organic back contact for thin-film CdS/CdTe solar cell

Khrypunov, G.; **Bereznev, Sergei; Meriuts, A.; Kopach, G.; Kovtun, N.; Deyneko, N.** Physics and chemistry of solid state 2010 / 1, p. 248-251 : ill

Effect of composite layers based on dyes with different type of conductivity on photovoltaic properties of CIS films

Verbitsky, Anatoly; Vertsimakha, Yaroslav; Studzinsky, Sergei; **Bereznev, Sergei** ICEPOM-6 conference abstracts : 6th International Conference on Electronic Processes in Organic Materials : Gurzuf, Crimea, Ukraine, September 25-29, 2006 2006 / p. 54-55 https://www.researchgate.net/publication/233173021_Effect_of_Composite_Layers_Based_on_Dyes_with_Different_Types_of_Conductivity_on_Photovoltaic_Properties_of_CIS_Films

Effect of composite layers based on dyes with different type of conductivity on photovoltaic properties of CIS films

Verbitsky, Anatoly; Vertsimakha, Yaroslav; Studzinsky, Sergei; **Bereznev, Sergei; Kois, Julia** Molecular crystals and liquid crystals 2007 / p. 123-133 <https://www.tandfonline.com/doi/full/10.1080/15421400701221245>

Effect of polymer layer deposition and annealing on photovoltaic properties of CuInS₂/polymer structures

Verbitsky, Anatoly; Vertsimakha, Yaroslav; Studzinsky, Sergei; **Bereznev, Sergei; Golovtsov, Igor; Kois, Julia; Öpik, Andres; Lytvyn, Oksana** Proceedings of the Estonian Academy of Sciences 2009 / 1, p. 18-23 : ill

Effect of the thickness on the electrical and optical properties of Zn(O,Se) layers prepared by PLD

Abdalla, Akram; Bereznev, Sergei GSFMT Scientific Conference 2020 : Tallinn, February 4-5, 2020 : abstracts 2020 / p. 10 <http://fntdk.ut.ee/wp-content/uploads/2020/01/GSFMT2020.pdf>

Electrical properties of polyaniline and polypyrrole bilayer structures

Bereznev, Sergei; Golovtsov, Igor; Öpik, Andres Synthetic metals 2001 / 1/3, p. 1415-1416

Electrical properties of polyaniline and polypyrrole bilayer structures

Bereznev, Sergei; Golovtsov, Igor; Öpik, Andres International Conference on Science and Technology of Synthetic Metals : 15th to 21st of July 2000, Gastein, Austria : book of abstracts 2000 / p. 63-MonH138

Electrically conductive polymers for solar energy conversion

Öpik, Andres; Bereznev, Sergei Baltic Polymer Symposium 2006 : September 20-22, 2006 : programme and proceedings 2006 / p. 2

Electrochemical and photoelectrochemical characterization of SnS photoabsorber films

Kois, Julia; Bereznev, Sergei; Maricheva, Jelena; Naidu, Revathi Materials science in semiconductor processing 2017 / p. 76-81 : ill <https://doi.org/10.1016/j.mssp.2016.10.036> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Electrochemical behaviour of TiCN and TiAlN gradient coatings prepared by lateral rotating cathode arc PVD technology

Baroninš, Janis; Podgurski, Vitali; Antonov, Maksim; Bereznev, Sergei; Hussainova, Irina Engineering materials and tribology XXV 2017 / p. 414-418 <https://doi.org/10.4028/www.scientific.net/KEM.721.414> [Journal metrics at Scopus](#) [Article at Scopus](#)

Electrochemical etching of copper indium diselenide surface

Kois, Julia; Bereznev, Sergei; Volobujeva, Olga; Mellikov, Enn Thin solid films 2006 / 15, p. 5871-5875 : ill

Electrochemical synthesis of CdSe/CdTe nanowires for hybrid photovoltaic structures

Gurevič, Jelena; Bereznev, Sergei; Mikli, Valdek; Naidu, Revathi; Mellikov, Enn; Kois, Julia Materials Research Society symposium proceedings 2014 / [6] p. : ill <https://doi.org/10.1557/opl.2014.576> [Conference proceedings at Scopus](#) [Article at Scopus](#)

Electrochemical synthesis of CdSe/CdTe nanowires for hybrid photovoltaic structures

Gurevič, Jelena; Kois, Julia; Bereznev, Sergei; Mellikov, Enn; Öpik, Andres 2014 MRS Spring Meeting & Exhibit : April 21-25, 2014, San Francisco, California : program. Symposium UU, Semiconductor Nanowires-Synthesis, Properties and Applications 2014 / [1] p

Electrochemically synthesised CdSe nanofibers and pearl-chain nanostructures for photovoltaic applications

Kois, Julia; Bereznev, Sergei; Gurevič, Jelena; Volobujeva, Olga Materials letters 2013 / p. 110-113 : ill
<https://doi.org/10.1016/j.matlet.2012.11.122> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Electrocrystallization of CdSe from aqueous electrolytes : structural arrangement from thin films to self-assembled nanowires

Kois, Julia; Bereznev, Sergei; Volobujeva, Olga; Gurevič, Jelena; Mellikov, Enn Journal of crystal growth 2011 / p. 9-12 : ill

Electrodeposited CDSE nanomatrix for hybrid polymer solar cells

Gurevič, Jelena; Bereznev, Sergei; Mikli, Valdek; Naidu, Revathi; Öpik, Andres; Mellikov, Enn; Kois, Julia Baltic Polymer Symposium 2015 : Sigulda, Latvia, September 16-18 : programme and proceedings 2015 / p. 96 : ill

Electrodeposited (Cu-In-Se)/polypyrrole PV structures

Bereznev, Sergei; Kois, Julia; Golovtsov, Igor; Öpik, Andres; Mellikov, Enn Thin solid films 2006 / p. 425-429 : ill

Electrodeposited molybdenum oxide coatings for thin film chalcopyrite solar cells

Ganchev, Maxim; Dimitrov, Dimitar; Stankova, Stanka; Katerski, Atanas; Gadjev, Iliya; Volobujeva, Olga; Mere, Arvo; Bereznev, Sergei; Krunks, Malle 10th Jubilee Conference of the Balkan Physical Union 2019 / art. 140002 <https://doi.org/10.1063/1.5091317>
[Conference proceedings at Scopus](#) [Article at Scopus](#) [Article at WOS](#)

Electrodeposited nanostructured CdSe/CdS matrix for hybrid solar cells [Online resource]

Maricheva, Jelena; Bereznev, Sergei; Maticiu, Natalia; Volobujeva, Olga; Kois, Julia Tartu Ülikooli ASTRA projekt PER ASPERA : Funktsionaalsed materjalid ja tehnoloogiad : [7-8 märts 2017, Tartu : teesid] 2017 / [1] p. : ill <http://fmtdk.ut.ee/teesid/>

Electrodeposition and characterization of CuInSe₂ for applications in thin film solar cells

Kois, Julia; Bereznev, Sergei; Volobujeva, Olga; Mellikov, Enn Conference on Knowledge-based Materials and Technologies for Sustainable Chemistry : 1-5 June 2005, Tallinn, Estonia : abstract book 2005 / p. 93

Electrodeposition of cadmium chalcogenide films for hybrid solar cells = Kaadmiumkalkogeniidkilede elektrokeemiline sadestamine kasutamiseks hübriid-päikesepatareides

Maricheva, Jelena 2017 http://www.ester.ee/record=b4747305*est <https://digi.lib.ttu.ee/9117>

Electrodeposition of CdSe nanofibers as photo-active matrix for polymer solar cells

Kois, Julia; Bereznev, Sergei; Gurevič, Jelena; Mellikov, Enn; Öpik, Andres Baltic Polymer Symposium 2013 : Trakai, Lithuania, September 18-21, 2013 : programme [and abstracts] 2013 / p. 122

Electrodeposition of CdSe nanomatrix for hybrid solar cells

Bereznev, Sergei; Gurevič, Jelena; Kois, Julia; Mellikov, Enn 12th International Conference on Nanosciences & Nanotechnologies : 7-10 July 2015, Porto Palace Conference Centre & Hotel, Thessaloniki, Greece : book of abstracts 2015 / p. 166

Electrodeposition of Cu-In-Ga thin metal films for Cu(In, Ga)Se₂ based solar cells

Kois, Julia; Ganchev, M.; Kaelin, M.; Bereznev, Sergei; Tzvetkova, E.; Volobujeva, Olga; Stratieva, N.; Tiwari, A.N. Thin solid films 2008 / 18, p. 5948-5952 : ill <https://www.sciencedirect.com/science/article/pii/S0040609007017415>

Electrodeposition of CuInSe₂ thin films onto Mo-glass substrates

Kois, Julia; Bereznev, Sergei; Mellikov, Enn; Öpik, Andres Thin solid films 2006 / p. 420-424 : ill

Elektrokeemilised CuInS₂/polüüpürrool fotovolt struktuurid

Bereznev, Sergei; Konovalov, Igor; Kois, Julia; Mellikov, Enn; Öpik, Andres XXVIII Eesti keemiapäevad : teaduskonverentsi ettekannete teesid = 28th Estonian Chemistry Days : abstracts of scientific conference 2002 / lk. 19

Elektrokeemilised CuInSe₂/polüüpürrool struktuurid päikeseenergeetikale

Bereznev, Sergei; Kois, Julia; Mellikov, Enn; Öpik, Andres; Meissner, Dieter XXVII Eesti keemiapäevad : teaduskonverentsi ettekannete referaadid = 27th Estonian Chemistry Days : abstracts of scientific conference 2001 / lk. 16-17

Energy levels determination of Zn(O,Se) thin films

Abdalla, Akram; Danilson, Mati; Mikli, Valdek; Bereznev, Sergei Materials science in semiconductor processing 2023 / art. 107137 <https://doi.org/10.1016/j.mssp.2022.107137> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Enhanced efficiency of hybrid amorphous silicon solar cells based on single-walled carbon nanotubes and polymer composite thin film

Rajanna, Pramod M.; Gilshteyn, Evgenia P.; Yagafarov, Timur; Alekseeva, Alena A.; Anisimov, Anton S.; Neumüller, Alex; Sergeev, Oleg; **Bereznev, Sergei; Maricheva, Jelena**; Nasibulin, Albert Nanotechnology 2018 / 10 p. : ill <https://doi.org/10.1088/1361-6528/aaa647> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Enhanced grain orientation in Sb₂Se₃ thin films deposited on Mo/BSG substrates via RF-sputtering and selenization
Uslu, Mehmet Ender; Muska, Katri; Pilvet, Maris; Bereznev, Sergei; Mikli, Valdek; Kauk-Kuusik, Marit; Grossberg-Kuusk, Maarja Materials science in semiconductor processing 2024 / art. 108835 <https://doi.org/10.1016/j.mssp.2024.108835> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Fabrication of novel SiO_xNy/SWCNT laminate-type composite protective coating using low-temperature approach
Shmagina, Elizaveta; Volobujeva, Olga; Nasibulin, Albert; Bereznev, Sergei Ceramics international 2024 / p. 34312-34320 <https://doi.org/10.1016/j.ceramint.2024.06.250> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Flexible solar cells based on copper tape : hybrid organic-inorganic structures

Bereznev, Sergei; Kois, Julia; Mellikov, Enn; Öpik, Andres Proceedings of the IASTED International Conference Energy and Power Systems : March 29-31, 2006, Chiang Mai, Thailand 2006 / p. 161-164 : ill https://www.researchgate.net/publication/288789183_Flexible_solar_cells_based_on_copper_tape_Hybrid_organic-inorganic_structures

GeTe₂ phase change material for terahertz devices with reconfigurable functionalities using optical activation

Konnikova, Maria R.; Khomenko, Maxim D.; Tverjanovich, Andrey S.; **Bereznev, Sergei**; Mankova, Anna A.; Parashchuk, Olga D.; Vasilevsky, Ivan S.; Ozheredov, Ilya A.; Shkurinov, Alexander P.; Bychkov, Eugene A. ACS applied materials & interfaces 2023 / p. 9638-9648 <https://doi.org/10.1021/acsami.2c21678> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Glass/ITO/In(O,S)/CuIn(S,Se)₂ solar cell with conductive polymer window

Kois, Julia; Bereznev, Sergei; Raudoja, Jaan; Mellikov, Enn; Öpik, Andres The Fourth International Conference on Advanced Optical Materials and Devices : (AOMD-4) : Tartu, Estonia, July 6-9, 2004 : abstracts 2004 / p. 44 <https://www.sciencedirect.com/science/article/abs/pii/S0927024804003836>

Glass/ITO/In(O,S)/CuIn(S,Se)₂ solar cell with conductive polymer window layer

Kois, Julia; Bereznev, Sergei; Raudoja, Jaan; Mellikov, Enn; Öpik, Andres Solar energy materials and solar cells 2005 / p. 657-665 : ill <https://www.sciencedirect.com/science/article/abs/pii/S0927024804003836>

Glassy GaS: transparent and unusually rigid thin films for visible to mid-IR memory applications

Tverjanovich, Andrey; Khomenko, Maksym; **Bereznev, Sergei**; Fontanari, Daniele; Sokolov, Anton; Usuki, Takeshi; Ohara, Koji; Le Coq, David; Masselin, Pascal; Bychkov, Eugene Physical chemistry chemical physics 2020 / p. 25560-25573 <https://doi.org/10.1039/D0CP04697C> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Graphene-ceramic hybrid nanofibers for ultrasensitive electrochemical determination of ascorbic acid

Taleb, Masoud; Ivanov, Roman; Bereznev, Sergei; Kazemi, Sayed Habib; **Hussainova, Irina** Microchimica acta 2017 / p. 897-905 : ill <https://doi.org/10.1007/s00604-017-2085-7> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

High efficient photovoltaics in Estonia

Altosaar, Mare; Bereznev, Sergei; Kauk, Marit; Krunks, Malle; Krustok, Jüri; Mellikov, Enn; Raudoja, Jaan; Varema, Tiit Proc. 3rd Workshop held at JRC Ispra, 2-3 Oct. 2003 2004 / p. 179-190

High vacuum evaporation of n-CuIn₃Se₅ photoabsorber films for hybrid PV structures with conductive polymers

Adhikari, Nirmal; Bereznev, Sergei; Laes, Kristjan; Kois, Julia; Volobujeva, Olga; Raadik, Taavi; Öpik, Andres; Traksmäa, Rainer; Tverjanovich, Andrey Baltic Polymer Symposium 2010 : Palanga, September 8-11, 2010 : programme and abstracts 2010 / p. 124 https://www.researchgate.net/publication/257710082_High-Vacuum_Evaporation_of_n-CuIn3Se5_Photoabsorber_Films_for_Hybrid_PV_Structures

High vacuum evaporation of n-CuIn₃Se₅ photoabsorber films for hybrid structures

Adhikari, Nirmal; Bereznev, Sergei; Laes, Kristjan; Volobujeva, Olga; Öpik, Andres EMRS-2010 Spring Meeting : Strasbourg, France, June 7-11 : program and book of abstracts. Symposium M 2010 / p. 8

Highly conductive PEDOT-PSS back contact layer for CdTe photoabsorber layer in the solar cell

Bereznev, Sergei; Volobujeva, Olga; Laes, Kristjan; Kois, Julia; Öpik, Andres ICSM-2008 : International Conference of Science and Technology of Synthetic Metals : Porto de Galinhas, Brazil, July 6-11, 2008 : book of abstracts 2008 / p. 160 <https://www.sciencedirect.com/science/article/pii/S0040609011000940>

High-vacuum evaporation of n-CuIn3Se5 photoabsorber films for hybrid PV structures

Adhikari, Nirmal; Bereznev, Sergei; Laes, Kristjan; Kois, Julia; Volobujeva, Olga; Raadik, Taavi; Traksmäa, Rainer; Tverjanovich, Andrey; Öpik, Andres; Mellikov, Enn Journal of electronic materials 2011 / p. 2374-2381 : ill

Hübriidsetes fototundlikes struktuurides rakendatavate n-CuIn3Se5 fotoabsorberkilede valmistamine kõrgvaakumaurustamise meetodil

Bereznev, Sergei; Adhikari, Nirmal; Kois, Julia; Volobujeva, Olga; Laes, Kristjan; Traksmäa, Rainer; Raadik, Taavi; Öpik, Andres XXXII Eesti Keemiapäevad : teaduskonverentsi teesid 2011 / lk. 15

Hybrid copper-indium disulfide polypyrrole/photovoltaic structures prepared by electrodeposition

Bereznev, Sergei; Konovalov, Igor; Öpik, Andres; Kois, Julia; Mellikov, Enn Solar energy materials and solar cells 2005 / p. 197-206 : ill

Hybrid CuInS2/polypyrrole and CuInS2/poly(3,4-ethylenedioxythiophene) photovoltaic structures [Electronic resource]

Bereznev, Sergei; Öpik, Andres; Konovalov, Igor Proceedings of the International Conference on the Science and Technology of Synthetic Metals : ICSM 04 : Wollongong, Australia, June 28-July 2, 2004 2004 / [CD-ROM]

https://www.researchgate.net/publication/232397578_Hybrid_CuInS2polypyrrole_and_CuInS2poly34-ethylenedioxythiophene_photovoltaic_structures

Hybrid CuInS2/polypyrrole and CuInS2/poly(3,4-ethylenedioxythiophene) photovoltaic structures

Bereznev, Sergei; Konovalov, Igor; Öpik, Andres; Kois, Julia Synthetic metals 2005 / 1/3, p. 81-84 : ill

Hybrid solar cells based on a-Si and electrodeposited polypyrrole

Dosenovicova, Denisa; Bereznev, Sergei; Maricheva, Jelena; Neumüller, A.; Sergeev, O.; Volobujeva, Olga; Kois, Julia; Öpik, Andres Baltic Polymer Symposium 2016 : programme and abstracts 2016 / p. 31 : ill

Hybrid solar cells based on CuInS2 and organic buffer-sensitizer layers

Bereznev, Sergei; Koeppel, R.; Konovalov, Igor; Kois, Julia; Günes, S.; Öpik, Andres; Mellikov, Enn; Sariciftci, N.S. Thin solid films 2006 / 15, p. 5759-5762 : ill

Hybrid solar cells based on inorganic photoabsorbers and organic functional layers

Bereznev, Sergei; Mellikov, Enn; Öpik, Andres Book of abstracts OP 2007 : 7th International Conference on Optical Probes of p-Conjugated Polymers and Functional Self-Assemblies : Turku, Finland, 11-15 June 2007 2007 / p. 107

Hybrid solar cells based on inorganic thin film structures and conjugated polymers

Kois, Julia; Bereznev, Sergei; Raudoja, Jaan; Mellikov, Enn; Öpik, Andres Proceedings of SPIE 2005 / Optical materials and applications, p. 59460V-1 - 59460V-6 : ill

Impact of vacuum and nitrogen annealing on HVE SnS photoabsorber films

Revathi, Naidu; Looi, Mihkel; Kärber, Erki; Volobujeva, Olga; Raudoja, Jaan; Maticiu, 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](#)

Improved amorphous silicon passivation layer for heterojunction solar cells with post-deposition plasma treatment

Neumüller, Alex; Sergeev, Oleg; Heise, Stephan J.; Bereznev, Sergei; Volobujeva, Olga Nano energy 2018 / p. 228-235 : ill <https://doi.org/10.1016/j.nanoen.2017.11.053> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Improved electrodeposition of CdS layers in presence of activating H2SeO3 microadditive

Maricheva, Jelena; Bereznev, Sergei; Naidu, Revathi; Maticiu, Natalia; Mikli, Valdek; Kois, Julia Materials science in semiconductor processing 2016 / p. 14-19 : ill <https://doi.org/10.1016/j.mssp.2016.06.013> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Influence of annealing conditions on the structural quality of CuInSe2 thin films

Volobujeva, Olga; Kois, Julia; Traksmäa, Rainer; Muska, Katri; Bereznev, Sergei; Grossberg, Maarja; Mellikov, Enn Thin solid films 2008 / 20, p. 7105-7109 : ill <https://www.sciencedirect.com/science/article/abs/pii/S0040609007020202>

Influence of conductive polymer deposition on photovoltaic properties of prospective inorganic photoabsorber CuInS2 in solar cell

Bereznev, Sergei; Kois, Julia; Mellikov, Enn; Öpik, Andres; Verbitsky, Anatoly; Vertsimakha, Yaroslav Proceedings of the Third IASTED Asian Conference Power and Energy Systems : April 2-4, 2007, Phuket, Thailand 2007 / p. 232-235 https://www.researchgate.net/publication/288795301_Influence_of_conductive_polymer_deposition_on_photovoltaic_properties_of_prospective_inorganic_photoabsorber_CuInS2_in_solar_cell

Influence of pH and deposition potentials on composition and morphology of CdSe films

Kois, Julia; Volobujeva, Olga; Bereznev, Sergei; Mellikov, Enn EMRS-2009 Spring Meeting, Strasbourg, France, 8-12 of June 2009, Symposium B 2009 / p. 50

Influence of selenous acid microadditive on electrochemical formation of CdS thin films

Maricheva, Jelena; Bereznev, Sergei; Maticiuc, Natalia; Volobujeva, Olga; Kois, Julia Electrochimica acta 2017 / p. 280-286 : ill <https://doi.org/10.1016/j.electacta.2017.05.035> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Interaction of CuCl₂ with poly(ethylene glycol) under microwave radiation

Tverjanovich, Andrey; Grevtsev, A. S.; Bereznev, Sergei Materials research express 2017 / art. 015006, p. 1-6 : ill <https://doi.org/10.1088/2053-1591/aa52d0> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Keskkonnasensorid juhtivatel polümeeridel = Environmental sensors based conductive polymers

Bereznev, Sergei; Sõritski, Vitali; Öpik, Andres XVII Eesti keemiapäevad : teaduskonverentsi ettekannete referaadid = 17th Estonian Chemistry Days : abstracts of scientific conference 1996 / lk. 17-18 https://www.ester.ee/record=b1070511*est

Low-temperature synthesis of ZnO layers assisted by chemical processes

Polivtseva, Svetlana; Dedova, Tatjana; Bereznev, Sergei; Kois, Julia; Tõnsuaadu, Kaia; Volobujeva, Olga; Juma, Albert Owino 12th European Symposium on Thermal Analysis and Calorimetry ESTAC 12 : 27-30 August 2018, Brasov, Romania : book of abstracts 2018 / PS1.016, p. 200 <http://estac12.org/download.php?f=../download/BoA%20ESTAC12.pdf>

Materials and technologies for photovoltaic applications from Estonia

Mellikov, Enn; Altosaar, Mare; Bereznev, Sergei; Kauk, Marit; Kois, Julia; Krustok, Jüri; Krunks, Malle; Varema, Tiit Proceedings of SPIE 2005 / Optical materials and applications, p. 59460X-1 - 59460X-9 : ill https://www.researchgate.net/profile/Mare-Altosaar/publication/252219854_Materials_and_technologies_for_photovoltaic_applications_from_Estonia/links/54e5e6520cf2cd2e028b39ca/Materials-and-technologies-for-photovoltaic-applications-from-Estonia.pdf

Mechanism of a microwave-assisted polyol synthesis of nanosize CuInSe₂ particles and their optical and photoelectric properties

Grevtsev, A. S.; Goncharenko, I. Yu.; Bereznev, Sergei Russian journal of applied chemistry 2014 / p. 671-675 : ill <https://doi.org/10.1134/S1070427214060019> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Microwave assisted synthesis of CuInSe₂ nanopowder

Gertsin, A.; Muradova, Galina; Shoka, A.; Kim, Dongsoo; Bereznev, Sergei; Tverjanovich, Andrey; Kois, Julia; Öpik, Andres; Tverjanovich, Yuri S. Hybrid and Organic Photovoltaic Conference (HOPV09) : 10-13 May 2009, Benidorm, Spain : book of abstracts 2009 / p. 79

Multilayer structures based on polyparaphenylene thin films

Golovtsov, Igor; Bereznev, Sergei; Öpik, Andres Baltic Polymer Symposium 2009 : Ventspils, Latvia, September 22-25, 2009 : programme and proceedings 2009 / p. 14

Novel SiO_xN_y composite thin films with aligned carbon nanotubes network

Shmagina, Elizaveta; Mikli, Valdek; Bereznev, Sergei GSFMT Scientific Conference 2023 : Tartu, 23-24 May, 2023 : abstracts 2023 <https://fmttk.ut.ee/programm-2023/>

Novel SiO_xN_y protective coatings with aligned carbon nanotubes network

Shmagina, Elizaveta; Volobujeva, Olga; Mikli, Valdek; Bereznev, Sergei Symposium E : Carbon- and/or nitrogen-containing thin films and nanomaterials : 40th Anniversary 2023 / art. 00680 <https://srv3.key4events.com/key4register/AbstractList.aspx?e=31&preview=1&aig=-1&ai=1968>

One-source PVD of n-CuIn₅Se₈ photoabsorber films for hybrid solar cells

Bereznev, Sergei; Adhikari, Nirmal; Kois, Julia; Raadik, Taavi; Traksmäa, Rainer; Volobujeva, Olga; Kouhiisfahani, Elham; Öpik, Andres Solar energy 2013 / p. 202-208 : ill <https://doi.org/10.1016/j.solener.2013.04.027> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

One-stage pulsed laser deposition of conductive zinc oxysulfide layers

Bereznev, Sergei; Kocharyan, Hrachya; Maticiuc, Natalia; Naidu, Revathi; Volobujeva, Olga; Tverjanovich, Andrey; Kois, Julia Applied surface science 2017 / p. 722-727 : ill <https://doi.org/10.1016/j.apsusc.2017.07.078> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

One-step electrochemical deposition of CuInSe₂ absorber layers

Kois, Julia; Volobujeva, Olga; Bereznev, Sergei Physica status solidi (c) 2008 / 11, p. 3441-3444 : ill

Optoelectronic surface emitters of terahertz radiation from copper chalcogenides

Adomavicius, Ramunas; Krotkus, Arunas; Šustaviciute, R.; Molis, Gediminas; Kois, Julia; Bereznev, Sergei; Mellikov, Enn; Gashin, P. Electronics letters 2007 / 25, p. 1458-1459 <https://doi.org/10.1049/el:20072035>

Photo-assisted electrodeposition of polypyrrole back contact to CdS/CdTe solar cell structures

Jarkov, Aleksandr; Bereznev, Sergei; Volobujeva, Olga; Traksmäa, Rainer; Tverjanovich, Andrey; Öpik, Andres; Mellikov, Enn Thin solid films 2013 / p. 198-201 : ill <https://doi.org/10.1016/j.tsf.2013.01.064> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Photo-assisted electrodeposition of polypyrrole back contact to CdS/CdTe solar cell structures

Jarkov, Aleksandr; Bereznev, Sergei; Kois, Julia; Volobujeva, Olga; Öpik, Andres E-MRS Spring Meeting 2012 - Symposium B : Strasbourg, France, May 14-18, 2012 : program and abstract book 2012 / p. 8

Photoelectrochemical deposition of PPY onto hydrogenated A-Si for optoelectronic applications

Dosenovicova, Denisa; Maricheva, Jelena; Neumüller, Alex; Sergeev, Oleg; Volobujeva, Olga; Nasibulin, Albert; Kois, Julia; Öpik, Andres; Bereznev, Sergei Open Readings 2017 : 60th International Conference for Students of Physics and Natural Sciences, March 14-17, 2017, Vilnius, Lithuania : programme and abstracts 2017 / p. 241 http://www.openreadings.eu/wp-content/uploads/2017/03/OR2017_abstracts_book.pdf

Photovoltaic structures formed by thermal annealing of electrodeposited CuInSe₂ in H₂S

Kois, Julia; Bereznev, Sergei; Mellikov, Enn; Öpik, Andres Proceedings of the Estonian Academy of Sciences. Chemistry 2003 / 2, p. 51-58 : ill

Polycrystalline CuIn₃Se₅ thin film photoabsorber deposited by the pulsed laser deposition technique

Tverjanovich, Andrey; Bereznev, Sergei; Borisov, Evgeny N.; Kim, Dongsoo; Kois, Julia; Laes, Kristjan; Volobujeva, Olga; Öpik, Andres; Mellikov, Enn; Tveryanovich, Yuri S. Proceedings of the Estonian Academy of Sciences 2009 / 1, p. 24-28 : ill

Polypyrrole back contact to CDS/CDTE solar cell structures by photo-assisted electrodeposition technique

Jarkov, Aleksandr; Bereznev, Sergei; Kois, Julia; Volobujeva, Olga; Öpik, Andres Baltic Polymer Symposium 2012 : Liepaja, Latvia, September 19-22 : programme and proceedings 2012 / p. 42

Polypyrrole back-contact to CdS/CdTe solar cell

Bereznev, Sergei; Jarkov, Aleksandr; Kois, Julia; Volobujeva, Olga; Mellikov, Enn; Öpik, Andres 11th International Symposium on Functional π -electron systems (F π -11) : June 2-7, 2013, Arcachon, France : book of abstracts 2013 / p. 164

Polypyrrole electrodeposition on inorganic semiconductors CuInSe₂ and CuInS₂ for photovoltaic applications

Bereznev, Sergei; Konovalov, Igor; Kois, Julia; Mellikov, Enn; Öpik, Andres 21st Discussion Conference of P.M.M./9th International Conference ERPOS : Electrical and Related Properties of Polymers and Other Organic Solids : Prague, 14-18 July 2002 : programme booklet. Volume K 76 2002 / p. 96

Polypyrrole electrodeposition on inorganic semiconductors CuInSe₂ and CuInS₂ for photovoltaic applications

Bereznev, Sergei; Konovalov, Igor; Kois, Julia; Mellikov, Enn; Öpik, Andres 21st Discussion Conference of P.M.M./9th International Conference ERPOS : Electrical and Related Properties of Polymers and Other Organic Solids : Prague, 14-18 July 2002 : [6] p. : ill

Polypyrrole electrodeposition on inorganic semiconductors CuInSe₂ and CuInS₂ for photovoltaic applications

Bereznev, Sergei; Konovalov, Igor; Kois, Julia; Mellikov, Enn; Öpik, Andres Electronic Phenomena in Organic Solids : Prague, Czech Republic, July 14-18, 2002 2004 / p. 287-292 : ill

Polypyrrole photovoltaic structure prepared by electrodeposition

Bereznev, Sergei; Kois, Julia; Mellikov, Enn; Öpik, Andres; Meissner, Dieter Seventeenth European Photovoltaic Solar Energy Conference and Exhibition : München, Germany, October 22-26, 2001 : book of abstracts 2001 / p. 150

Practical application of polyaniline as active material of humidity sensors

Bereznev, Sergei; Öpik, Andres Tallinna Tehnikaülikooli Toimetised 1994 / lk. 28-34: ill

Preparation and characterization of Cu(In,Ga)Se₂ layers by selenization of electrodeposited Cu-In-Ga precursors

Kois, Julia; Ganchev, M.; Kaelin, M.; Bereznev, Sergei; Tzvetkova, E.; Volobujeva, Olga; Stratieva, N.; Tiwari, A. 20th European Photovoltaic Solar Energy Conference : 6-10 June 2005, Barcelona, Spain 2005 / p. 1790-1792 : ill
<https://www.sciencedirect.com/science/article/pii/S0040609005022935>

Preparation and impedance spectroscopy of hybrid structures based on CuInISe₂ photoabsorber = Hübridsete CuInISe₂ fotoabsorberstruktuuride valmistamine ja impedantsispektroskoopia

Laes, Kristjan 2010 https://www.ester.ee/record=b2580322*est

Preparation of BaSnO₃ target material for pulsed laser deposition [Online resource]

Abdalla, Akram; Bereznev, Sergei; Volobujeva, Olga; Mikli, Valdek 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://fmtdk.ut.ee/teesid-2018/>

Preparation of Cu(In,Ga) Se₂ layers by selenization of electrodeposited Cu-In-Ga precursors

Ganchev, M.; Kois, Julia; Kaelin, M.; Bereznev, Sergei; Tzvetkova, E.; Volobujeva, Olga; Stratieva, N.; Tiwari, A. Thin solid films 2006 / p. 325-327 <https://www.sciencedirect.com/science/article/abs/pii/S0040609005022935>

Properties of CuInS₂ free surface and the effect of conductive polymer layers on these properties

Verbitsky, Anatoly; Vertsimakha, Yaroslav; Lutsyk, Petr; Studzinsky, Sergei; **Bereznev, Sergei; Kois, Julia; Öpik, Andres; Mellikov, Enn** Proceedings of the Estonian Academy of Sciences. Chemistry 2006 / 2, p. 111-119 : ill

Properties of the CuInS₂ surface and the effect of organic layers

Verbitsky, Anatoly; Vertsimakha, Yaroslav; Lutsyk, P.N.; Studzinsky, Sergei; **Bereznev, Sergei; Kois, Julia** Semiconductor structures, interfaces, and surfaces 2006 / 2, p. 197-201 : ill

Pulsed laser deposition of Zn(O,Se) layers for optoelectronic application

Polivtseva, Svetlana; Spalatu, Nicolae; Abdalla, Akram; Volobujeva, Olga; Hiie, Jaan; Bereznev, Sergei ACS Applied Energy Materials 2018 / p. 6505–6512 : ill <http://dx.doi.org/10.1021/acsaeam.8b01431>

Pulsed laser deposition of Zn(O,Se) layers for optoelectronic applications

Ibrahim, Akram Abdalla Mohammed; Bereznev, Sergei GSFMT Scientific Conference 2021 : Tartu, June 14-15, 2021 : abstracts 2021 / O 13 https://fntdk.ut.ee/wp-content/uploads/2021/06/GSFMT_abstractbook_2021.pdf

Pulsed laser deposition of Zn(O,Se) layers for optoelectronic applications = Impulsslaser-sadestatud Zn(O,Se) kiled optoelektronseteks rakendusteks

Ibrahim, Akram Abdalla Mohammed 2021 <https://digikogu.taltech.ee/et/Item/0d07be7f-3737-4350-9de4-80f32df036de>
https://www.ester.ee/record=b5470705*est <https://doi.org/10.23658/taltech.57/2021>

Pulsed laser deposition of Zn(O,Se) layers in nitrogen background pressure

Abdalla, Akram; Bereznev, Sergei; Spalatu, Nicolae; Volobujeva, Olga; Sleptšuk, Natalja; Danilson, Mati Scientific reports 2019 / art. 17443, 10 p. : ill <https://doi.org/10.1038/s41598-019-54008-1> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

PVD grown SnS thin films onto different substrate surfaces

Revathi, Naidu; Bereznev, Sergei; Iljina, Julia; Safonova, Maria; Mellikov, Enn; Volobujeva, Olga Journal of materials science : materials in electronics 2013 / p. 4739-4744 : ill <https://doi.org/10.1007/s10854-013-1468-8> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

PVD of highly photosensitive n-CuIn₅Se₈ films for hybrid PV structures

Adhikari, Nirmal; Bereznev, Sergei; Volobujeva, Olga; Raadik, Taavi; Traksmäa, Rainer; Öpik, Andres Progress in Applied Surface, Interface and Thin Film Science 2012 : Florence, Italy, June 14-19, 2012 : program and book of abstracts 2012 / p. 83

PVD of N-CuIn₃Se₅ photoabsorber films

Adhikari, Nirmal; Bereznev, Sergei; Kois, Julia; Volobujeva, Olga; Raadik, Taavi; Traksmäa, Rainer; Tverjanovich, Andrey; Öpik, Andres Materials and applications for sensors and transducers 2012 / p. 339-342
https://www.researchgate.net/publication/272070024_PVD_OF_n-CuIn3Se5_photoabsorber_films

PVD of n-CuIn₅Se₈ photoabsorber films for hybrid solar cells

Adhikari, Nirmal; Bereznev, Sergei; Kois, Julia; Volobujeva, Olga; Raadik, Taavi; Traksmäa, Rainer; Dahal, R.K.; Tverjanovich, Andrey; Öpik, Andres Baltic Polymer Symposium 2012 : Liepaja, Latvia, September 19-22 : programme and proceedings 2012 / p. 29

Päikeseelemendid H₂S atmosfääris kuumutamise ja modifitseeritud elektrokeemiliselt sadestatud CuInSe₂ kilede baasil

Kois, Julia; Bereznev, Sergei; Mellikov, Enn; Öpik, Andres XXVIII Eesti keemiapäevad : teaduskonverentsi ettekannete teesid = 28th Estonian Chemistry Days : abstracts of scientific conference 2002 / lk. 59

Päikeseelementide uued materjalid ja konstruktsioonid : kommentaar Eesti Vabariigi teaduse aastapreemia pälvinud tööde tsüklile

Mellikov, Enn; Altosaar, Mare; Bereznev, Sergei; Öpik, Andres Tallinna Tehnikaülikooli aastaraamat 2006 2007 / lk. 262-267 : ill

Päikeseenergeetika materjalid

Mellikov, Enn; Altosaar, Mare; Bereznev, Sergei; Kauk, Marit; Krunks, Malle; Krustok, Jüri; Mere, Arvo; Raudoja, Jaan; Varema, Tiit; Öpik, Andres Teaduse uued suunad : materjaliteadus : Eesti Teaduste Akadeemia seminari materjalid : 23.10.2003 2004 / lk. 11-21 : ill

Raman spectroscopy for reliability assessment of multilayered AlCrN coating in tribo-corrosive conditions [Online resource]

Baroninš, Janis; Antonov, Maksim; Bereznev, Sergei; Raadik, Taavi; Hussainova, Irina Coatings 2018 / art. 229, 12 p. : ill <https://doi.org/10.3390/coatings8070229> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Raman spectroscopy of multilayered AlCrN coating under high temperature sliding/oxidation

Baroninš, Janis; Antonov, Maksim; Bereznev, Sergei; Raadik, Taavi; Hussainova, Irina Modern Materials and Manufacturing

2019 : 12th International DAAAM Baltic Conference and 27th International Baltic Conference BALTMATTRIB 2019. Selected, peer reviewed papers from the conference Modern Materials and Manufacturing 2019 (MMM 2019), April 24-26, 2019, Tallinn, Estonia 2019 / p. 9-14 <https://www.scientific.net/KEM.799.9> https://www.ester.ee/record=b5235278*est <https://doi.org/10.4028/www.scientific.net/KEM.799.9> Conference proceeding at Scopus Article at Scopus

Rational design of highly efficient flexible and transparent p-type composite electrode based on single-walled carbon nanotubes

Rajanna, Pramod M.; Meddeb, Hosni; **Bereznev, Sergei; Volobujeva, Olga; Danilson, Mati** Nano energy 2020 / art. 104183, 9 p. : ill <https://doi.org/10.1016/j.nanoen.2019.104183> Journal metrics at Scopus Article at Scopus Journal metrics at WOS Article at WOS

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

Selective photoelectrochemical deposition of polypyrrole onto hydrogenated a-Si for optoelectronic applications

Dosenovicova, Denisa; Maricheva, Jelena; Neumüller, Alex; Sergeev, Oleg; **Volobujeva, Olga;** Nasibulin, Albert; **Kois, Julia; Öpik, Andres; Bereznev, Sergei** Materials science in semiconductor processing 2017 / p. 1-5 : ill <https://doi.org/10.1016/j.mssp.2017.05.028> Journal metrics at Scopus Article at Scopus Journal metrics at WOS Article at WOS

A self-rechargeable and flexible polymer solar battery

Dennler, G.; **Bereznev, Sergei; Meissner, Dieter; Mellikov, Enn; Öpik, Andres** Solar energy 2007 / 8, p. 947-957 <https://www.sciencedirect.com/science/article/pii/S0038092X07000424>

SEM analysis and selenization of Cu-Zn-Sn sequential films produced by evaporation of metals

Volobujeva, Olga; Mellikov, Enn; Raudoja, Jaan; Grossberg, Maarja; Bereznev, Sergei; Altosaar, Mare; Traksmäa, Rainer Conference on Optoelectronic and Microelectronic Materials and Devices (COMMAD 2008) : Sydney, 18.07-1.08.2008 : proceedings 2009 / p. 257-260 <https://ieeexplore.ieee.org/document/4802140/similar#similar>

Shallow defect density determination in CuIn3Se5 thin film photoabsorber by impedance spectroscopy

Laes, Kristjan; Bereznev, Sergei; Tverjanovich, Andrey; Borisov, Evgeny N.; **Varema, Tiit; Volobujeva, Olga; Öpik, Andres** Thin solid films 2009 / p. 2286-2290 : ill

Solar cells based on polycrystalline copper-indium chalcogenides and conductive polymers

Bereznev, Sergei 2003 http://www.ester.ee/record=b1558007*est

Structural and mechanical properties of laminate-type thin film SWCNT/SiOXNY composites

Shmagina, Elizaveta; Volobujeva, Olga; Antonov, Maksim; Bereznev, Sergei SICT 2024, PLASMA TECH 2024 and TRIBOLOGY 2024 : JOINT international conferences : book of abstracts 2024 / p. 142 <https://www.setcor.org/conferences/tribology-2024/conference-program>

Structural and optical properties of laminate-type thin film SWCNT composites in a silicon oxynitride matrix obtained by low-temperature curing methods

Shmagina, Elizaveta; Kasikov, Aarne; Volobujeva, Olga; Bereznev, Sergei Symposium I: Nano-engineered coatings and thin films: from fundamentals to applications 2024 <https://secure.key4events.com/key4register/AbstractList.aspx?e=1689&preview=1&aig=-1&ai=57371>

Structural, mechanical, and optical properties of laminate-type thin film SWCNT/SiOxNy composites

Shmagina, Elizaveta; Antonov, Maksim; Kasikov, Aarne; **Volobujeva, Olga;** Khabushev, Eldar M.; Kallio, Tanja; **Bereznev, Sergei** Nanomaterials 2024 / art. 1806 <https://doi.org/10.3390/nano14221806> Journal metrics at Scopus Article at Scopus Journal metrics at WOS Article at WOS

Study of activating treatment for glass/ITO/CdS/CdTe structures prepared by high vacuum evaporation

Jarkov, Aleksandr; Bereznev, Sergei; Laes, Kristjan; Volobujeva, Olga; Öpik, Andres EMRS-2010 Spring Meeting : Strasbourg, France, June 7-11 : program and book of abstracts. Symposium M 2010 / p. 8-9

Study of CdS thin films electrodeposited in presence of promotive selenious acid microadditive

Maricheva, Jelena; Bereznev, Sergei; Volobujeva, Olga; Mellikov, Enn; Kois, Julia BEC 16 : the 6th Baltic Electrochemistry Conference : Electrochemistry of Functional Interfaces and Materials : 15th-17th June 2016, Helsinki, Finland 2016 / p. 77 : ill

Synergistic effect of single-walled carbon nanotubes and PEDOT:PSS in Thin film amorphous silicon hybrid solar cell

Alekseeva, Alena A.; Rajanna, Pramod M.; Anisimov, Anton S.; Sergeev, Oleg; Bereznev, Sergei; Nasibulin, Albert Physica status solidi (b) 2018 / 4 p. : ill <https://doi.org/10.1002/pssb.201700557> Journal metrics at Scopus Article at Scopus Journal metrics at WOS Article at WOS

Synthesis and characterisation of Cu2ZnSnSe4 thin films prepared via a vacuum evaporation-based route

Volobujeva, Olga; Bereznev, Sergei; Raudoja, Jaan; Otto, Kairi; Pilvet, Maris; Mellikov, Enn Thin solid films 2013 / p. 48-51 : ill <https://doi.org/10.1016/j.tsf.2012.12.080> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Synthesis of CuInSe₂ nanopowder in polyethylene glycol

Tverjanovich, Andrey; **Bereznev, Sergei**; Gertsin, Andrejs; Muradova, Galina; Shoka, Andrejs; Kim, Dongsoo; **Kois, Julia; Öpik, Andres**; Tveryanovich, Yuri S. Scientific journal of Riga Technical University. Series 1, Material science and applied chemistry 2010 / p. 79-83 : ill <https://ortus.rtu.lv/science/en/publications/8070>

Synthesis of CuInSe₂ nanopowder in polyethylene glycol

Tverjanovich, Andrey; **Bereznev, Sergei**; Gertsin, A.; Muradova, Galina; Shoka, A.; Kim, Dongsoo; **Kois, Julia; Öpik, Andres**; Tveryanovich, Yuri S. Baltic Polymer Symposium 2009 : Ventspils, Latvia, September 22-25, 2009 : programme and proceedings 2009 / p. 102

Zn(O,Se) as a novel buffer layer for thin film solar cells

Abdalla, Akram; Polivtseva, Svetlana; Spalatu, Nicolae; Volobujeva, Olga; Hiie, Jaan; Bereznev, Sergei Tartu Ülikooli ASTRA projekt PER ASPERA : Funktsionaalsed materjalid ja tehnoloogiad : [4.-5. veebr. 2019, Tartu : teesid] 2019 <http://fntdk.ut.ee/teesid-2019/>

TalTech panustab kosmosevaldkonda kiipide, päikesepaneelide ja satelliitidega

Normak, Liisu Kirke Trialoog 2025 <https://trialoog.taltech.ee/taltech-panustab-kosmosevaldkonda-kiipide-paikesepaneelide-ja-satelliitidega/>

Teaduspreemia tehnikateaduste alal teadustöö "Päikeseelementide uued materjalid ja konstruktsioonid" eest : Enn Mellikov (kollektiivi juht), Mare Altosaar, Sergei Bereznev, Andres Öpik

Mellikov, Enn; Altosaar, Mare; Bereznev, Sergei; Öpik, Andres Eesti Vabariigi teaduspreemiad 2006 2006 / lk. 58-68 : fot., ill

Terahertz radiation from nonstoichiometric CuInSe₂ films excited by femtosecond laser pulses

Adomavicius, Ramunas; Krotkus, Arunas; **Kois, Julia; Bereznev, Sergei; Mellikov, Enn** Applied physics letters 2005 / 19, [3] p <https://doi.org/10.1063/1.2126796>

The cost-effective deposition of ultra-thin titanium(IV) oxide passivating layers for improving photoelectrochemical activity of SnS electrodes

Kois, Julia; Polivtseva, Svetlana; Bereznev, Sergei Thin solid films 2019 / p. 152-156 : ill <https://doi.org/10.1016/j.tsf.2018.12.047> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

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 impedance spectroscopy of CuIn₃Se₅ photoabsorber films prepared by high vacuum evaporation technique

Laes, Kristjan; Bereznev, Sergei; Land, Raul; Tverjanovich, Andrey; Volobujeva, Olga; Traksmäa, Rainer; Raadik, Taavi; Öpik, Andres Energy procedia 2010 / 1, p. 119-131 : ill

The impedance spectroscopy of hybrid CdTe / PEDOT-PSS interface

Bereznev, Sergei; Laes, Kristjan; Jarkov, Aleksandr; Volobujeva, Olga; Öpik, Andres Hybrid and Organic Photovoltaics 2010 Conference : Assisi, Italy, May 23-27, 2010 : book of abstracts 2010 / p. 118

The impedance spectroscopy of well-oriented CuIn₃Se₅ films prepared by high vacuum evaporation technique

Laes, Kristjan; Bereznev, Sergei; Tverjanovich, Andrey; Öpik, Andres EMRS-2009 Spring Meeting, Strasbourg, France, 8-12 of June 2009, Symposium B 2009 / p. 46

The synthesis and investigation of physicochemical properties of polyaniline

Bereznev, Sergei; Öpik, Andres Tallinna Tehnikaülikooli Toimetised 1994 / lk. 20-27: ill

Thin composite films consisting of polypyrrole and polyparaphenylene

Golovtsov, Igor; Bereznev, Sergei; Traksmäa, Rainer; Öpik, Andres Thin solid films 2006 / 19, p. 7712-7715 : ill

Thin tin monosulfide films deposited with the HVE method for photovoltaic applications = Tanka plast hve kositrovega monosulfida za uporabo v fotovoltaiiki

Naidu, Revathi; Bereznev, Sergei; Lehner, Julia; Traksmäa, Rainer; Safonova, Maria; Mellikov, Enn; Volobujeva, Olga Materials and technology 2015 / p. 149-152 : ill <http://mit.imt.si/Revija/izvodi/mit151/revathi.pdf>

Ultra-sensitive voltammetric simultaneous determination of dopamine, uric acid and ascorbic acid based on a graphene-coated alumina electrode

Taleb, Masoud; Ivanov, Roman; Bereznev, Sergei; Kazemi, Sayed Habib; Hussainova, Irina Microchimica acta 2017 / p. 4603-4610 : ill <https://doi.org/10.1007/s00604-017-2510-y> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Свойства поверхности CuInS₂ и влияние на них органических слоев

Verbitsky, Anatoly; Vertsimakha, Yaroslav; Lutsyk, P.N.; Studzinsky, Sergei; **Bereznev, Sergei; Kois, Julia** Физика и техника полупроводников 2006 / 2, с. 202-206 : ил

Электроосаждение полипиррола в качестве тыльного контакта для солнечного элемента CdS/CdTe

Bereznev, Sergei; Kois, Julia; Jarkov, Aleksandr; Opik, Andres; Mellikov, Enn Шестая Всероссийская Каргинская конференция "Полимеры - 2014". Том I, Программа конференции и сборник тезисов пленарных, приглашённых, и устных докладов 2014 / с. 165