

### **Atomic structure and dynamics of unusual and wide-gap phase-change chalcogenides : a GeTe<sub>2</sub> 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>

### **Atypical phase-change alloy Ga<sub>2</sub>Te<sub>3</sub> : 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](#)

### **CuInSe<sub>2</sub> thin films deposited by UV laser ablation**

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

### **Decoding the atomic structure of Ga<sub>2</sub>Te<sub>5</sub> 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](#)

### **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](#)

### **High vacuum evaporation of n-CuIn<sub>3</sub>Se<sub>5</sub> photoabsorber films for hybrid PV structures with conductive polymers**

**Adhikari, Nirmal; Bereznev, Sergei; Laes, Kristjan; Kois, Julia; Volobujeva, Olga; Raadik, Taavi; Öpik, Andres; Traksmaa, 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](https://www.researchgate.net/publication/257710082_High-Vacuum_Evaporation_of_n-CuIn3Se5_Photoabsorber_Films_for_Hybrid_PV_Structures)

### **High-vacuum evaporation of n-CuIn<sub>3</sub>Se<sub>5</sub> photoabsorber films for hybrid PV structures**

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

### **Interaction of CuCl<sub>2</sub> 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>

### **Microwave assisted synthesis of CuInSe<sub>2</sub> 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

### **One-stage pulsed laser deposition of conductive zinc oxysulfide layers**

**Bereznev, Sergei**; Kocharyan, Hrachya; **Maticiu, 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>

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

**Jarkov, Aleksandr; Bereznev, Sergei; Volobujeva, Olga; Traksmaa, Rainer**; Tverjanovich, Andrey; **Öpik, Andres; Mellikov, Enn** *Thin solid films* 2013 / p. 198-201 : ill

### **Polycrystalline CuIn<sub>3</sub>Se<sub>5</sub> 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**; Tverjanovich, Yuri S. *Proceedings of the Estonian Academy of Sciences* 2009 / 1, p. 24-28 : ill

### **PVD of N-CuIn<sub>3</sub>Se<sub>5</sub> photoabsorber films**

**Adhikari, Nirmal; Bereznev, Sergei; Kois, Julia; Volobujeva, Olga; Raadik, Taavi; Traksmaa, 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](https://www.researchgate.net/publication/272070024_PVD_OF_n-CuIn3Se5_photoabsorber_films)

### **PVD of n-CuIn<sub>5</sub>Se<sub>8</sub> photoabsorber films for hybrid solar cells**

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

**Shallow defect density determination in CuIn<sub>3</sub>Se<sub>5</sub> 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

**Synthesis of CuInSe<sub>2</sub> 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

**Synthesis of CuInSe<sub>2</sub> 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>

**The impedance spectroscopy of CuIn<sub>3</sub>Se<sub>5</sub> photoabsorber films prepared by high vacuum evaporation technique**

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

**The impedance spectroscopy of well-oriented CuIn<sub>3</sub>Se<sub>5</sub> films prepared by high vacuum evaporation technique**

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