

## **Publications:**

1. M. Leszczynska, **X Liu**, W. Wrobel, M. Malys, M. Krynski, S. T. Norberg, S. Hull, F. Krok and I. Abrahams, *Chem. Mater.*, **25(3)**, 2013, 326-336.

DOI: 10.1021/cm302898m.

Title: Thermal Variation of Structure and Electrical Conductivity in  $\text{Bi}_4\text{YbO}_{7.5}$ .

2. M. Winkler, **X. Liu**, U. Schürmann, J. König, L. Kienle, W. Bensch and H. Böttner, *Z. Anorg. Allg. Chem.*, **638 (15)**, 2012, 2441.

Title: Current status in fabrication, structural and transport property characterization, and theoretical understanding of  $\text{Bi}_2\text{Te}_3/\text{Sb}_2\text{Te}_3$  superlattice systems.

3. M. Struzik, **X. Liu**, I. Abrahams, F. Krok, M. Malys and J R Dygas, *Solid State Ionics*, **218**, 2012, 25.

Title: Defect structure and electrical conductivity in the pseudo-binary system  $\text{Bi}_3\text{TaO}_7\text{--Bi}_3\text{NbO}_7$ .

4. M. Winkler, **X. Liu**, J. D. König, S. Buller, U. Schürmann, L. Kienle, W. Bensch and H. Böttner,

*J. Mater. Chem.*, 2012, **22**, 11323.

Title: Electrical and structural properties of  $\text{Bi}_2\text{Te}_3$  and  $\text{Sb}_2\text{Te}_3$  thin films grown by the nanoalloying method with different deposition patterns and compositions.

5. M. Holdynski, M. Sinyureva, **X. Liu**, W. Wrobel, J R Dygas, M. Pisarek, R. M. Nix, F. Krok and I. Abrahams,

*J. Phys. Cond. Matter.*, **24**, 2012, 045904.

Title: Phase and electrical behaviour in  $\text{Bi}_4\text{NbO}_{8.5}$ .

6. U. Schürmann, M. Winkler, J. D. König, **X. Liu**, V. Duppel, W. Bensch, H. Böttner L. Kienle,

*Adv. Eng. Mater.*, **14(3)**, 2012, 139.

Title: *In situ* TEM Investigations on Thermoelectric  $\text{Bi}_2\text{Te}_3/\text{Sb}_2\text{Te}_3$  Multilayers.

7. M. Winkler, **X. Liu**, L. Kirste, H. Böttner, W. Bensch, L. Kienle,

*J. Electron. Mater.*, **41(6)**, 2012, 1322.

Title: Sputtered p-type  $\text{Sb}_2\text{Te}_3/(\text{Bi,Sb})_2\text{Te}_3$  Soft Superlattices Created By Nanoalloying.

8. **X. Liu**, M. Winkler, J. D. König, U. Schürmann, W. Bensch, H. Böttner and L. Kienle,

*ECT 9 conference proceedings*, ISBN: 978-0-7354-1048-0

*AIP Conf. Proc.* 1449, pp. 163-166; doi:<http://dx.doi.org/10.1063/1.4731522>

Title: Thermoelectric Property Characterisations and Structural Analysis of Nanoalloyed  $\text{Sb}_x\text{Te}_{1-x}$  Multilayer Thin Films.

9. **X. Liu**, I. Abrahams, S. Hull, S.T. Norberg and F. Krok,

*Solid State Ionics*, **192 (1)**, 2011, 176.

Title: A Total Neutron Scattering study of Defect structure in  $\text{Bi}_3\text{Nb}_{0.5}\text{Y}_{0.5}\text{O}_{6.5}$ .

10. I. Abrahams, **X. Liu**, S. Hull, S.T. Norberg, F. Krok, A. Kozaneca-Szmigiel, M.S. Islam, S.J. Stokes,

*Chem. Mater.*, **22 (15)**, 2010, 4435.

Title: A Combined Total Scattering and Simulation Approach to Analysing Defect Structure in  $\text{Bi}_3\text{YO}_6$ .

11. A. Borowska-Centowska, A. Kario, F. Krok, I. Abrahams, X. Liu, S.C.M. Chan, W. Wrobel, M. Malys, S. Hull, and J. R. Dygas,  
*Solid State Ionics*, **181**, 2010, 1750.  
Title: Defect structure and electrical conductivity in the  $\text{Bi}_{3+x}\text{Nb}_{0.8}\text{W}_{0.2}\text{O}_{7.1+3x/2}$  system.
12. M. Leszczynska, M. Holdynski, F. Krok, I. Abrahams, **X. Liu** and W. Wrobel,  
*Solid State Ionics*, **181**, 2010, 796.  
Title: Structural and electrical properties of  $\text{Bi}_3\text{Nb}_{1-x}\text{Er}_x\text{O}_{7-x}$ .
13. **Xi Liu**, Isaac Abrahams, Marcin Holdynsky, Franciszek Krok and Stephen Hull,  
*Proceedings of the 12<sup>th</sup> Asian Conference on Solid State Ionics*, 2010, 446.  
Title: Correlation of defect structure and ionic conductivity in fluorite cubic phase solid solution in the pseudo binary  $(\text{Bi}_2\text{O}_3)_{1-x}(\text{YNBO}_4)_x$  system.
14. F.Krok, I.Abrahams, M.Holdynski, A. Koznecka-Szmigiel, M. Malys, M.Struzik, **X. Liu** and J.R. Dygas,  
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15. XU Kai-qun, ZHANG Feng, XU Qing, CHEN Wen, HUANG Duan-ping and **LIU Xi**,  
*Bulletin of The Chinese Ceramic Society*. **25(5)**, 2006, 74.  
Title: EDTA-Citrate Method Synthesis and Oxygen Ionic Conducting Properties of  $\text{Bi}_2\text{V}_{0.9}\text{Co}_{0.1}\text{O}_{5.5-\delta}$ .