

## Reviewed publications

Our graduate students are underlined and the journal impact factor (at the time of publication) is given in [brackets].

1. *Thermally stable red-emitting oxide ceramics for laser lighting*  
Z. Yang, T. de Boer, P.M. Braun, B. Su, Q. Zhang, A. Moewes, Z. Xia, *Advanced Materials* 35, 2301837 (2023). [32.1]
2. *The Importance of Lone Pairs to Structure and Bonding of the novel Nitridophosphate  $\text{GeP}_2\text{N}_4$*   
T. de Boer, C. Somers, T.D. Boyko, S.J. Ambach, L. Eisenburger, W. Schnick, A. Moewes, *J. Mat. Chem. A* 11, 6198-6204 (2023). [14.5]
3. *Structural influence of Lone Pairs:  $\text{GeP}_2\text{N}_4$ , Representing Germanium(II) Nitridophosphates*  
S.J. Ambach, C. Somers, T. de Boer, L. Eisenburger, A. Moewes, W. Schnick, *Angewandte Chemie (Int. Ed.)* 135, e202215393 (1 to 5) (2023). [16.8]
4. *Band Gap and Electronic Structure of  $\text{CaSiN}_2$  – Experiment and Theory*  
T. de Boer, T.D. Boyko, C. Braun, W. Schnick, A. Moewes, *J. Applied Ceramic Technology* 20, 197-203 (2023). [2.3]
5. *Structure and Band Gap Determination of  $\text{InN}$  grown by RP-MOCVD*  
R. Dubreuil, M.R. Amin, J. Tot, M. Nagorski, B. Kadikoff, A. Moewes, D. Alexandrov, *J. Materials Science: Materials in Electronics* 22, 17668-17677 (2022). [2.8]
6. *Energy Levels of  $\text{Eu}^{2+}$  States in the Next-Generation LED-Phosphor  $\text{SrLi}_2\text{Al}_2\text{O}_2\text{N}_2:\text{Eu}^{2+}$*   
M.R. Amin, P. Strobel, W. Schnick, P.J. Schmidt, A. Moewes, *J. Mat. Chem. C* 10, 9740-9747 (2022). [8.1]
7. *Experimental and theoretical characterization of x-ray induced excitons, magnons and dd transitions in  $\text{MoO}_3$  nanosheets*  
A. Qamar, P.M. Braun, S. Walia, S. Balendhran, F. Rahman, E.Z. Kurmaev, A. Moewes, *Phys. Rev. Materials* 6, 074003 (2022). [4.0]
8. *Band Gap and Electronic Structure of Defects in the Ternary Nitride  $\text{BP}_3\text{N}_6$ : Experiment and Theory*  
T. de Boer, Md.F. Al Fattah, M.R. Amin, S. Ambach, S. Vogel, W. Schnick, A. Moewes, *J. Mat. Chem. C* 10, 6429-6434 (2022). [8.1]
9. *Inverse-tunable Red Luminescence and Electronic Properties of Nitridoberyllaluminates  $\text{Sr}_{2-x}\text{Ba}_x[\text{BeAl}_3\text{N}_5]:\text{Eu}^{2+}$  ( $x=0-2$ )*  
E. Elzer, P. Strobel, V. Weiler, M.R. Amin, P.J. Schmidt, A. Moewes, W. Schnick, *Chem. – Europ. J.* 28, e202104121 (1 to 8) (2022) [5.0]
10. *Detecting a Hierarchy of Deep level defects in the model semiconductor  $\text{ZnSiN}_2$*   
T. de Boer, J. Häusler, P. Strobel, T.D. Boyko, S.S. Rudel, W. Schnick, A. Moewes, *J. Phys. Chem. C* 1125, 27959-27965 (2021). [4.1]
11. *Tuning the Electronic Bandgap of Oxygen Bearing Cubic Zirconium Nitride:  $c\text{-Zr}_{3-x}(\text{N}_{1-x}\text{O}_x)_4$*   
T.D. Boyko, A. Zerr and A. Moewes, *ACS Appl. Electr. Mat.* 3, 4768-4773 (2021). [new journal]
12. *Comprehensive Band Gap and Electronic Structure Investigations of the Prominent Phosphors  $\text{M}_2\text{Si}_5\text{N}_8$  ( $\text{M}=\text{Ca}, \text{Sr}, \text{Ba}$ ) Determined Using Soft X-ray Spectroscopy and Density Functional Theory*

- T.M. Tolhurst, C. Braun, W. Schnick, A. Moewes, J. Phys. Chem. C 125, 25799-25806 (2021). [4.1]
13. *Unraveling the Energy Levels of  $\text{Eu}^{2+}$  ions in  $\text{MBe}_{20}\text{N}_{14}:\text{Eu}^{2+}$  ( $M=\text{Sr}, \text{Ba}$ ) Phosphors*  
M.R. Amin, E. Elzer, W. Schnick, and A. Moewes, J. Phys. Chem. C 125, 11828-11837 (2021). [4.1]
14. *Electronic Properties of Carbyne Chains: Experiment and theory*  
T. de Boer, D. Zatsepin, D. Raikov, E.Z. Kurmaev, A.F. Zatsepin, A. Moewes, J. Phys. Chem. C 125, 8268-8273 (2021). [4.1]
15. *Understanding of luminescence properties using direct measurements on  $\text{Eu}^{2+}$ -doped wide band gap phosphors*  
M.R. Amin, P. Strobel, A. Qamar, T. Giftthaler, W. Schnick, and A. Moewes, Adv. Opt. Mat. 8, 2000504 (2020). [8.3]
16. *Electronic Structure of Wide Band Gap Semiconductors  $\text{Mg}_2\text{PN}_3$  and  $\text{Zn}_2\text{PN}_3$*   
Md.F. Al Fattah, M.R. Amin, M. Mallmann S. Kasap, W. Schnick, and A. Moewes J. Phys.: Cond. Matter 32, 405504 (2020). [2.7]
17. *Origin and control of room temperature ferromagnetism in Co,Zn-doped  $\text{SnO}_2$ : oxygen vacancies and their local environment*  
J. Ho, T. de Boer, B. Leedahl, D. Manikandan, R. Murugan, and A. Moewes, J. Mat. Chem. C 8, 4902-4908 (2020). [6.6]
18. *Direct Evidence of Charge Transfer upon Anion Intercalation in Graphite Cathodes through New Electronic Graphite States: An Experimental and Theoretical Study of Hexafluorophosphate*  
T. de Boer, J. Lapping, J. Read, T. Fister, M. Balasubramanian, J. Cabana, and A. Moewes, Chemistry of Materials 32, 2036-2042 (2020). [10.2]
19. *A probe of Valence and Conduction Band Electronic Structure of Lead Oxide Films for Photodetectors*  
A. Qamar, M. Amin, O. Grynko, O. Semeniuk, A. Reznik, and A. Moewes, ChemPhysChem 20, 3328-3335 (2019). [3.1]
20. *Energy band gaps and excited states in  $\text{Si-QD}/\text{SiO}_x\text{R}_y\text{O}_z$  ( $R= \text{Si}, \text{Al}, \text{Zr}$ ) suboxide superlattices*  
A.F. Zatsepin, E.A. Buntov, D.A. Zatsepin, E.Z. Kurmaev, V.A. Pustovarov, A.V. Ershov, N.W. Johnson, and A. Moewes, J. Phys.: Cond. Mat. 31, 415301-1-9 (2019). [2.7]
21. *Electronic Structure and Structural Defects in 3d-Metal doped  $\text{In}_2\text{O}_3$*   
J. Ho, J. Becker, B. Leedahl, D.W. Boukhvalov, I.S. Zhidkov, A.I. Khukharenko, E.Z. Kurmaev, S.O. Cholakh, N.V. Gavrilov, V.I. Brinzari, and A. Moewes, J. Mat. Sci.: Mat. in Electronics 30, 14091-14098 (2019). [2.2]
22. *Paving the way towards green catalytic materials for green fuels: impact of chemical species on Mo-based catalysts for hydrodeoxygenation*  
D. Valencia, L. Díaz-García<sup>1</sup>, L.F. Ramírez-Verduzco, A. Qamar, A. Moewes, and J. Aburto, RSC Advances 9, 18292-18301 (2019). [3.0]
23. *Fundamental Crystal Field Excitations in magnetic semiconductor  $\text{SnO}_2:\text{Mn,Fe,Co,Ni}$*   
B. Leedahl, D. McClosky, D.W. Boukhvalov, I.S. Zhidkov, A.I. Khukharenko, E.Z. Kurmaev, S.O. Cholakh, N.V. Gavrilov, V.I. Brinzari, and A. Moewes, Phys. Chem. Chem. Phys. 21, 11992-11998 (2019). [3.6]
24. *Bandgap and Electronic Structure Determination of Oxygen-Containing*

- Ammonothermal InN: Experiment and Theory*  
M.R. Amin, T. de Boer, P. Becker, J. Hertrampf, R. Niewa, and A. Moewes, J. Phys. Chem. C 123, 8943-8950 (2019). [4.3]
25. *Oxygen Vacancy Induced Structural Distortions in Black Titania: A unique Approach using Soft X-ray EXAFS at the O-K Edge*  
B. Leedahl, T. de Boer, Y. Yuan, and A. Moewes, Chem. – A Europ. J. 25, 3272-3278 (2019). [5.2]
26. *Ultrasmall Au nanocatalysts supported on nitride carbon for electrocatalytic CO<sub>2</sub> reduction: the role of the carbon support in high selectivity*  
L. Jin, B. Liu, P. Wang, H. Yao, L.A. Achola, P. Kerns, A. Lopes, Y. Yang, J. Ho, A. Moewes, Y. Pei, and J. He, Nanoscale 10, 14678-14686 (2018). [7.0]
27. *Luminescence of an Oxonitridoberyllate: A Study of Narrow-band Cyan Emitting Sr[Be<sub>6</sub>ON<sub>4</sub>]:Eu<sup>2+</sup>*  
P. Strobel, T. de Boer, V. Weiler, P.J. Schmidt, A. Moewes, and W. Schnick, Chemistry of Materials 30, 3122-3130 (2018). [10.2]
28. *The Electronic structure of ε'-V<sub>2</sub>O<sub>5</sub>: an expanded band gap in a double-layered polymorph with increased interlayer separation*  
T.M. Tolhurst, B. Leedahl, J.L. Andrews, S. Banerjee, A. Moewes, J. Mat. Chem. A 5, 23694-23703 (2017). [10.7]
29. *X-ray spectroscopic study of various lead oxides for direct conversion imaging*  
A. Qamar, K. LeBlanc, J. Lin, Y. Pan, A. Reznik, A. Moewes, Scientific reports 7, 13159 1-10 (2017). [4.0]
30. *Direct measurements of Energy Levels and Correlation with Thermal Quenching behavior in Nitrides Phospors*  
T.M. Tolhurst, P. Strobel, P.J. Schmidt, W. Schnick, A. Moewes, Chem. Mat. 29, 7976-7983 (2017). [10.2]
31. *How functional groups change the electronic structure of graphdiyne: Theory and Experiment*  
N. Ketabi, T.M. Tolhurst, B. Leedahl, H. Liu, Y. Li, A. Moewes, Carbon 123, 1-7 (2017). [7.5]
32. *Recent Advances with Soft X-ray Absorption Spectroscopy*  
A. Moewes, Handbook of Solid State Chemistry, 1<sup>st</sup> edition, 2017, Chapter 11 (pages 361-391) Wiley.
33. *Bulk vs. Surface Structure of 3d Metal impurities in Topological Insulator Bi<sub>2</sub>Te<sub>3</sub>*  
B. Leedahl, D.W. Boukhvalov, E.Z. Kurmaev, A. Kukharenko, I.S. Zhidkov, N.V. Gavrilov, S.O. Cholakh, P. Huu Le, C. Wei Luo, and A. Moewes, Scientific Reports 7, 5758 (2017). [5.2]
34. *Tunability of room-temperature ferromagnetism in Spintronic semiconductors through nonmagnetic atoms*  
B. Leedahl, Z. Talizadeh, K. LeBlanc, A. Moewes, Phys. Rev. B 96, 045202-1-5 (2017). [3.7]
35. *Designing Luminescence Materials and Band Gaps: A Soft X-ray spectroscopy and Density Functional Theory Study of Li<sub>2</sub>Ca<sub>2</sub>[Mg<sub>2</sub>Si<sub>2</sub>N<sub>6</sub>]:Eu<sup>2+</sup> and Ba[Li<sub>2</sub>(Al<sub>2</sub>Si<sub>2</sub>)N<sub>6</sub>]:Eu<sup>2+</sup>*  
T.M. Tolhurst, P. Strobel, W. Schnick, A. Moewes, J. Phys. Chem. C 121, 14296-14301 (2017). [4.5]

36. *Structure-Induced Switching of the Band Gap, Charge Order and Correlation Strength in Ternary Vanadium Bronzes*  
T.M. Tolhurst, J.L. Andrews, B. Leedahl, P.M. Marley, S. Banerjee, and A. Moewes, *Chemistry – A European Journal* 23, 9846-9856 (2017). [5.8]
37. *Intercalation-induced dimensional reduction and thickness-modulated electronic structure of a layered ternary vanadium oxide*  
J.L. Andrews, L.R. De Jesus, T.M. Tolhurst, P. Marley, A. Moewes, S. Banerjee, *Chemistry of Materials* 29, 3285-3294 (2017). [9.4]
38. *The hardness of group 14 spinel nitrides revisited*  
T.D. Boyko and A. Moewes, *Journal of the Ceramic Society of Japan* 124, 1063-1066 (2016). [0.83]
39. *Searching for pure iron in nature: magnetic and spectroscopy study of the Chelyabinsk meteorite*  
B. Leedahl, A.V. Korolev, I.S. Zhidkov, S.L. Skornyakov, V.I. Anisimov, A.S. Belozеров, A.I. Kukharenko, E.Z. Kurmaev, V.I. Grokhovskii, S.O. Cholakh, and A. Moewes, *RSC Advances* 6, 85844-85851 (2016). [3.3]
40. *Experiment-driven modeling of crystalline phosphorus nitride: wide ranging implications from a unique structure*  
T.M. Tolhurst, C. Braun, T.D. Boyko, W. Schnick, A. Moewes, *Chemistry – A European Journal* 22, 10475-10483 (2016). [5.8]
41. *Tuning the electronic structure of graphene through nitrogen doping: Experiment and theory*  
N. Ketabi, T. de Boer, M. Karakay, J. Zhu, A. Podila, A.M. Rao, E.Z. Kurmaev, and A. Moewes, *RSC Advances* 6, 56721-56727 (2016). [3.3]
42. *Contrasting 1D Tunnel Structured and 2D Layered Polymorphs of  $V_2O_5$ : Relating Structure and Bonding to Band Gaps and Electronic Structure*  
T.M. Tolhurst, B. Leedahl, J.L. Andrews, P.M. Marley, S. Banerjee, and A. Moewes, *Phys. Chem. Chem. Phys.* 18, 15798-15806 (2016). [4.5]
43. *Band Gap and electronic structure of cubic, rhombohedral, and orthorhombic  $In_2O_3$  polymorphs: Experiment and theory*  
T. de Boer, M.F. Bekheet, A. Gurlo, R. Riedel, and A. Moewes, *Phys. Rev. B* 93, 155205 (2016). [3.7]
44. *Electronic structure, Band gap and thermal quenching of  $Sr[Mg_3SiN_4]:Eu^{2+}$  and  $Sr[LiAl_3N_4]:Eu^{2+}$*   
T.M. Tolhurst, S. Schmiechen, P. Pust, P.J. Schmidt, W. Schnick, and A. Moewes, *Adv. Opt. Mat.* 4, 584-591 (2016). [7.2]
45. *Transition from Reconstruction toward Thin Film on the (110) Surface of Strontium Titanate*  
Z. Wang, A. Loon, A. Subramanian, S. Gerhold, E. McDermott, J.A. Enterkin, M. Hieckel, B.C. Russell, R.J. Green, A. Moewes, J. Guo, P. Blaha, M.R. Castell, U. Diebold, and L.D. Marks, *Nano Letters* 16, 2407-2412 (2016). [13.8]
46. *Oxidized Monolayers of Exfoliated Silicene on Ag(111)*  
N.W. Johnson, D. Muir and A. Moewes, *Scientific Reports* 6, 22510 (2016). [5.6]
47. *Linking the HOMO-LUMO Gap to Torsional Disorder in P3HT/PCBM Blends*

- J.A. McLeod, A.L. Pitman, E.Z. Kurmaev, L.D. Finkelstein, I.S. Zhidkov, A. Savva, and A. Moewes, *J. Chem. Phys.* 143, 224704 (2015). [2.9]
48. *Selective Area Band Engineering of Graphene using Cobalt-Mediated Oxidation*  
P. Bazylewski, V.L. Nguyen, R.P.J. Bauer, A.H. Hunt, E.J.G. McDermott, B.D. Leedahl, A.I. Kukharenko, S.O. Cholakh, E.Z. Kurmaev, P. Blaha, A. Moewes, Y.H. Lee, G.S. Chang, *Sci. Reports* 5, 15380 (2015). [5.6]
49. *Adjacent Fe-Vacancy Interactions as the Origin of Room Temperature Ferromagnetism in  $(\text{In}_{1-x}\text{Fe}_x)_2\text{O}_3$*   
R.J. Green, T.Z. Regier, B. Leedahl, J.A. McLeod, X.H. Xu, G.S. Chang, E.Z. Kurmaev, and A. Moewes, *Phys. Rev. Lett.* 115, 167401 (2015). [7.7]
50. *The characterization of Co-nanoparticles supported on graphene*  
P. Bazylewski, D. Boukhvalov, A.I. Kukharenko, E.Z. Kurmaev, A. Hunt, A. Moewes, Y.H. Lee, S.O. Cholakh, and G.S. Chang, *RSC Advances* 5, 75600-75606 (2015). [3.8]
51. *Pronounced, reversible, and in situ modification of the electronic structure of graphene oxide via cooling below 160 K*  
A. Hunt, E. McDermott, E.Z. Kurmaev and A. Moewes, *J. Phys. Chem. Letters* 6, 3163-3169 (2015). [7.5]
52. *Stability and Electronic Characteristics of Epitaxial Silicene Multilayers on Ag(111)*  
N.W. Johnson, D. Muir, E.Z. Kurmaev, and A. Moewes. *Adv. Func. Mat.* 25, 4083-4090 (2015). [10.4]
53. *Band Gap and Electronic Structure of  $\text{MgSiN}_2$  Determined Using soft X-ray Spectroscopy*  
T. de Boer, T.D. Boyko, C. Braun, W. Schnick, and A. Moewes, *physica status solidi – Rapid Research Letters* 9 (4), 250-254 (2015). [2.4]
54. *Investigations of the Electronic Structure and Bandgap of the Next-generation LED-phosphor  $\text{Sr}[\text{LiAl}_3\text{N}_4]:\text{Eu}^{2+}$  – Experiments and calculations*  
T.M. Tolhurst, T.D. Boyko, P. Pust, N.W. Johnson, W. Schnick, and A. Moewes, *Advanced Optical Materials* 3, 546-550 (2015). [7.2]
55. *Electronic structure of  $\text{Li}_2\text{RuO}_3$  studied by LDA+DMFT calculations and X-ray spectroscopy*  
Z.V. Pchelkina, A.L. Pitman, A. Moewes, E.Z. Kurmaev, Teck-Yee Tan, J.-G. Park, and S.V. Streltsov, *Phys. Rev. B* 91, 115138 (2015). [3.7]
56. *Determination of the Critical Current Density in  $\text{YBa}_2\text{Cu}_3\text{O}_{7-\delta\delta}$  Thin Films Measured by the Screening Technique Under Two Criteria*  
F. Gamboa, I. Perez, J.A. Matutes-Aquino, A. Moewes, and V. Sosa, *IEEE Transactions on Applied Superconductivity* 25 (1), 8000105 (2015). [1.2]
57. *Study of the Structural Characteristics of 3d metals Cr, Mn, Fe, Co, Ni, and Cu Implanted in ZnO and  $\text{TiO}_2$  – Experiment and Theory*  
B. Leedahl, D.Z. Zatsepin, D.W. Boukhvalov, E.Z. Kurmaev, R.J. Green, I.S. Zhidkov, S.S. Kim, N.V. Gavrilov, S.O. Cholakh, and A. Moewes, *J. Phys. Chem. C* 118, 28143-28151 (2014). [4.8]
58. *Electronic structure and spin trapping in  $\text{LiMnAs}$  and  $\text{LiFeAs}$ :Mn*  
J.A. McLeod, E.Z. Kurmaev, I. Perez, R.J. Green, L.Y. Xing, X.C. Wang, C.-Q. Jin, and A. Moewes, *J. Phys. Cond. Matt.* 27, 015504 (2015). [2.2]
59. *Asymmetric pathways in the electrochemical conversion reaction of NiO as battery electrode with high storage capacity*

- U. Boesenberg, M.A. Marcus, A.K. Shukla, T. Yi, E. McDermott, P.F. Teh, M. Srinivasan, A. Moewes, J. Cabana, *Scientific Reports* 4, 7133-7142 (2014). [5.1]
60. *The electronic structure of Zirconium in hydrided and oxidized states*  
H. Akhiani, A. Hunt, X. Cui, A. Moewes, and J. Szpunar, *J. Alloys & Compounds* 622, 463-470 (2015). [2.7]
61. *Electronic Structure of FeSe<sub>1-x</sub>Te<sub>x</sub> Studied by X-ray Spectroscopy and Density Functional Theory*  
I. Pérez, J.A. McLeod, R.J. Green, R. Escamilla, V. Ortiz, and A. Moewes, *J. Phys. Chem. C* 118, 25150-25157 (2014). [4.8]
62. *Electronic structure of Co-substituted FeSe superconductor probed by soft X-ray spectroscopy and density functional theory*  
I. Perez, J.A. McLeod, R.J. Green, R. Escamilla, V. Ortiz, and A. Moewes, *Phys. Rev. B* 90, 014510 (2014). [3.7]
63. *The Metallic Nature of Epitaxial Silicene Monolayers on Ag(111)*  
N.W. Johnson, P. Vogt, A. Resta, P. De Padova, I. Perez, D. Muir, E.Z. Kurmaev, G. Le Lay, and A. Moewes, *Adv. Func. Mat.* 24, 5253-5259 (2014). [10.4]
64. *A Reevaluation of the Role of Functional Groups in Modifying the Electronic Structure of Graphene Oxide*  
A. Hunt, E.Z. Kurmaev, and A. Moewes, *Advanced Materials* 26, 4870-4874 (2014). [15.4]
65. *Measuring Partial Fluorescence Yield using Filtered Detectors*  
T.D. Boyko, R.J. Green, A. Moewes, T.Z. Regier, *J. Synchr. Rad.* 21, 716-721 (2014). [3.0]
66. *Band gap engineering of graphene oxide by chemical modification*  
A. Hunt, E.Z. Kurmaev, and A. Moewes, *Carbon* 75, 366-371 (2014). [6.2]
67. *Comment on "State-Dependent Electron Delocalization Dynamics at the Solute-Solvent Interface: Soft X-ray Absorption Spectroscopy and Ab Initio Calculations"*  
R.J. Green, D. Peak, A.J. Achkar, J.S. Tse, A. Moewes, D.G. Hawthorn, and T.Z. Regier, *Phys. Rev. Lett.* 112, 129301-1-2 (2014). [7.7]
68. *Local Structure of Fe Impurity Atoms in ZnO: Bulk versus Surface*  
J.A. McLeod, D.W. Boukhvalov, D.Z. Zatsepin, R.J. Green, B. Leedahl, L. Chui, E.Z. Kurmaev, I.S. Zhidkov, L.D. Finkelstein, N.V. Gavrilov, S.O. Cholakh, and A. Moewes, *J. Phys. Chem. C* 118, 5336-5345 (2014). [4.8]
69. *Electronic Band gap reduction and intense luminescence in Co and Mn ion-implanted SiO<sub>2</sub>*  
R.J. Green, D.A. Zatssepin, D.J. St. Onge, E.Z. Kurmaev, N.V. Gavrilov, and A. Moewes, *J. Appl. Phys.* 115, 103708-1-7 (2014). [2.2]
70. *Structural defects induced by Fe-ion implantation in TiO<sub>2</sub>*  
B. Leedahl, D.A. Zatssepin, D.W. Boukhvalov, R.J. Green, J.A. McLeod, S.S. Kim, E.Z. Kurmaev, I.S. Zhidkov, N.V. Gavrilov, S.O. Cholakh, and A. Moewes, *J. Appl. Physics* 115, 053711-1-7 (2014). [2.2]
71. *The local crystal structure and electronic band gap of β-SiAlON*  
T.D. Boyko, T. Groß, M. Schwarz, H. Fueß, and A. Moewes, *J. Materials Science* 49, 3242-3252 (2014). [2.3]
72. *Finite temperature effects on the X-ray absorption spectra of lithium compounds: first-principles interpretation of X-ray Raman measurements*

- T.A. Pascal, U. Boesenberg, R. Kostecki, T.J. Richardson, T.-C. Weng, D. Sokaras, D. Nordlund, E. McDermott, A. Moewes, J. Cabana, and D. Prendergast, *J. Chem. Phys.* 140, 034107-1-13 (2014). [3.1]
73. *Modulation of the Band Gap of Graphene Oxide: The Role of AA-stacking*  
A. Hunt, D.A. Dikin, E.Z. Kurmaev, Y.H. Lee, N.V. Luan, G.S. Chang, and A. Moewes, *Carbon* 66, 539-545 (2014). [6.2]
74. *Reduction of conductivity and ferromagnetism induced by Ag doping in ZnO:Co*  
H. Bieber, S. Colis, G. Schmerber, V. Pierron-Bohnes, D.W. Boukhvalov, E.Z. Kurmaev, L.D. Finkelstein, P. Bazylewski, A. Moewes, G.S. Chang, A. Dinai, *Thin Solid Films* 545, 488-495 (2013). [1.9]
75. *Magnesium Double Nitride Mg<sub>3</sub>GaN<sub>3</sub> and Binary Nitride Mg<sub>3</sub>N<sub>2</sub> as New Host Lattices for Eu<sup>2+</sup>-Doping – Synthesis, Structural Studies, Luminescence and Band Gap Determination*  
F. Hintze, N.W. Johnson, M. Seibald, D. Muir, A. Moewes, and W. Schnick, *Chem. Mat.* 25, 4044-4052 (2013). [8.5]
76. *X-ray Spectroscopic Study of the Conduction Band of K<sub>3</sub>:Anthracene and K<sub>3</sub>:Phenanthrene*  
A. Pitman, J.A. McLeod, E. Khozmeni Sarbisheh, E.Z. Kurmaev, J. Müller, and A. Moewes, *J. Phys. Chem. C* 117, 1916-1921 (2013). [4.8]
77. *Electronic Structure of Spinel Nitride Compounds Si<sub>3</sub>N<sub>4</sub>, Ge<sub>3</sub>N<sub>4</sub> and Sn<sub>3</sub>N<sub>4</sub> with Tunable Band Gaps: Application to Light Emitting Diodes*  
T.D. Boyko, A. Hunt, A. Zerr, and A. Moewes, *Phys. Rev. Lett.* 111, 097402-1-5 (2013). [7.7]
78. *Electronic structure of Copper Pnictides: Influence of Different Cations and Pnictogens*  
J.A. McLeod, E.Z. Kurmaev, I. Perez, V.K. Anand, P. Kanchana Perera, D.C. Johnston, and A. Moewes, *Phys. Rev. B* 88, 014508-1-10 (2013). [3.8]
79. *Fast electron dynamics in vanadates measured by resonant inelastic x-ray scattering*  
G. Herrera, J. Jimenez-Mier, R.G. Wilks, A. Moewes, W. Yang, J. Denlinger, *Materials Letters*. 107, 144-146 (2013). [2.2]
80. *Excited states in yttrium orthovanadate YVO<sub>4</sub> measured by soft X-ray absorption spectroscopy*  
G. Herrera, J. Jimenez-Mier, R.G. Wilks, A. Moewes, W. Yang, J. Denlinger, *J. Mat. Sci.* 48, 6437-6444 (2013). [2.2]
81. *Electronic band gap reduction in Manganese Carbodiimide: MnNCN*  
T.D. Boyko, R.J. Green, R. Dronskowski, and A. Moewes, *J. Phys. Chem. C* 117, 12754-12761 (2013). [4.8]
82. *Band gap tuning in ZnO Through Ni doping via spray pyrolysis*  
S.C. Das, R.J. Green, J. Podder, G.S. Chang, and A. Moewes, *J. Phys. Chem. C* 117, 12745-12753 (2013). [4.8]
83. *Band gap tuning in Poly(triazine imide), a Non-metallic Photocatalyst*  
E.J. McDermott, E. Wirnhier, W. Schnick, K.S. Viridi, C. Scheu, and A.Y. Kauffmann, W.D. Kaplan, E.Z. Kurmaev, and Moewes, *J. Phys. Chem. C* 117, 8806-8812 (2013). [4.8]
84. *The formation of Ti-O tetrahedra and band gap reduction in SiO<sub>2</sub> via pulsed ion implantation*

- R.J. Green, D.A. Zatsopin, A. Hunt, E.Z. Kurmaev, N.V. Gavrilov, and A. Moewes, J. Appl. Physics 113, 103704-1-4 (2013). [2.2]
85. *Optimizing and characterizing grating efficiency for a soft X-ray spectrometer*  
M. Boots, D. Muir and A. Moewes, J. Synchr. Rad. 20, 272-285 (2013). [2.2]
86. *Predicting the band gap of ternary oxides containing  $3d^{10}$ ,  $3d^0$  metals*  
J.A. McLeod, D.A. Zatsopin, E.Z. Kurmaev, A. Wypych, I. Bobovska, A. Opasinka, S.O. Cholakh, and A. Moewes, Phys. Rev. B 86, 195207-1-7 (2012). [3.8]
87. *Chemical bonding and hybridization in 5p binary oxides*  
J.A. McLeod, N.A. Skorikov, L.D. Finkelstein, E.Z. Kurmaev, and A. Moewes, J. Phys. Chem. C 116, 24248-24254 (2012). [4.8]
88. *Interplay of ballistic and chemical effects in the formation of structural defects for Sn and Pb implanted silica*  
R.J. Green, A. Hunt, D.A. Zatsopin, D.W. Boukhvalov, J.A. McLeod, E.Z. Kurmaev, N.A. Skorikov, N.V. Gavrilov, and A. Moewes, J. Non-Cryst. Solids 358, 3187-3192 (2012). [1.6]
89. *Room Temperature Ferromagnetism via unpaired dopant electrons and p-p coupling in carbon-doped  $In_2O_3$ : Experiment and Theory*  
R.J. Green, D.W. Boukhvalov, E.Z. Kurmaev, L.D. Finkelstein, H.W. Ho, K.B. Ruan, L. Wang, and A. Moewes, Phys. Rev. B 86, 115212-1-8 (2012). [3.8]
90. *Electronic Structure of Titanium monoxide with randomly distributed vacancies*  
M.A. Korotin, A.V. Efremov, E.Z. Kurmaev and A. Moewes, JETP letters 95, 641-646 (2012). [1.5]
91. *Epoxide Speciation and Functional Group Distribution in Graphene Oxide Paper-like Materials*  
A. Hunt, D.A. Dikin, E.Z. Kurmaev, T.D. Boyko, P. Bazylewski, G.S. Chang, and A. Moewes, Advanced Functional Materials 22, 3950-3957 (2012). [10.2]
92. *Formation of Mn-oxide clusters in  $Mn^{+}$ -implanted  $SiO_2$  probed by soft X-ray emission and absorption spectroscopy*  
D.A. Zatsopin, A. Moewes, A. Hunt, N.V. Gavrilov, E.Z. Kurmaev, and S.O. Cholakh, Vacuum 86, 1615-1617 (2012). [1.3]
93. *Band gap Engineering in  $TiO_2$ -based Ternary Oxides*  
J.A. McLeod, R.J. Green, E.Z. Kurmaev, N. Kumada, A.A. Belik, and A. Moewes, Phys. Rev. B 85 195201-1-8 (2012). [3.7]
94. *Effect of 3d-doping on the electronic structure of  $BaFe_2As_2$*   
J.A. McLeod, A. Buling, R.J. Green, T.D. Boyko, N.A. Skorikov, E.Z. Kurmaev, M. Neumann, L.D. Finkelstein, N. Ni, A. Thaler, S.L. Bud'ko, P.C. Canfield, and A. Moewes, J. Phys.: Cond. Matt. 24, 215501-1-11 (2012). [2.6]
95. *Oxygen-vacancy-induced ferromagnetism in undoped  $SnO_2$  thin films*  
G.S. Chang, J. Forrest, E.Z. Kurmaev, A.N. Morozovska, M.D. Glinchuk, J.A. McLeod, A. Moewes, T.P. Surkova, and N.H. Hong, Phys. Rev. B 85, 165319-1-4 (2012). [3.7]
96. *Structural and band gap investigation of  $GaN:ZnO$  heterojunction solid solution photocatalyst probed by soft X-ray spectroscopy*  
E.J. McDermott, E.Z. Kurmaev, T.D. Boyko, L.D. Finkelstein, R.J. Green, K. Maeda, K. Domen, and A. Moewes, J. Phys. Chem. C 116, 7694-7700 (2012). [4.8]
97. *Structural ordering in a silica glass matrix under Mn ion implantation*



- D.A. Zatsepin, R.J. Green, A. Hunt, E.Z. Kurmaev, N.V. Gavrilov, and A. Moewes, *J. Phys.: Cond. Matt.* 24, 185402-1-7 (2012). [2.6]
98. *Selective response of Mesoporous Silicon to Adsorbants with Nitro Groups*  
J.A. McLeod, E.Z. Kurmaev, P.V. Sushko, T.D. Boyko, I.A. Levitsky, and A. Moewes, *Chemistry – A European Journal* 18, 2912-2922 (2012). [5.9]
99. *Spectroscopic Characterization of a Multi-Band Complex Oxide: Insulating and Conducting Cement  $12\text{CaO}\cdot 7\text{Al}_2\text{O}_3$*   
J.A. McLeod, A. Buling, E.Z. Kurmaev, P.V. Sushko, M. Neumann, L.D. Finkelstein, S.-W. Kim, H. Hosono, and A. Moewes, *Phys. Rev. B* 85, 045204-1-8 (2012). [3.7]
100. *X-ray absorption and emission spectroscopic investigation of Mn doped ZnO films*  
J. Jin, G.S. Chang, Y.X. Zhou, X.Y. Zhang, D.W. Boukhvalov, E.Z. Kurmaev, and A. Moewes, *Appl. Surf. Science* 257, 10748-10751 (2011). [2.1]
101. *Electronic structure of Lithium metagallate*  
N. Johnson, J.A. McLeod and A. Moewes, *J. Phys. Cond. Matt.* 23, 445501-6 (2011). [2.6]
102. *Anion ordering in spinel-type gallium oxonitride*  
T.D. Boyko, C.E. Zvoriste, I. Kinski, R. Riedel, S. Hering, H. Huppertz, and A. Moewes, *Phys. Rev. B* 84, 085203-1-6 (2011). [3.7]
103. *Boron enhanced synthesis of Ti-hydride nanoparticles by milling Ti/B in hydrogen flow*  
C. Borchers, T.I. Khomenko, A.V. Leonov, O.S. Morozova, J. Cizek, I. Prochazka, A.S. Shkvarin, E.Z. Kurmaev, and A. Moewes, *Current Nanoscience* 7, 757-769 (2011). [1.9]
104. *Pb<sup>+</sup> implanted SiO<sub>2</sub> probed by soft X-ray emission and absorption spectroscopy*  
D.Z. Zatsepin, A. Hunt, A. Moewes, E.Z. Kurmaev, N.V. Gavrilov, I.S. Zhidkov, and S.O. Cholakh, *Journal of Non-crystalline solids* 357, 3381-3384 (2011). [1.5]
105. *Electronic Structure of the Si-C-N Amorphous Films*  
D.A. Zatsepin, E.Z. Kurmaev, A. Moewes, and S.O. Cholakh, *Physics of the Solid State* 53, 1806-1810 (2011). [0.73]
106. *Nature of the electronic states involved in the chemical bonding and superconductivity at high pressure in SnO*  
J.A. McLeod, A.V. Lukoyanov, E.Z. Kurmaev, L.D. Finkelstein, and A. Moewes, *JETP Letters* 94, 146-150 (2011). [1.6]
107. *Molecular orientation and optical luminescence properties of soluble star-shaped oligothiophene molecules for organic electronics applications*  
R.G. Wilks, G.S. Chang, K.H. Kim, D.H. Choi, and A. Moewes, *J. Electr. Spectr. Rel. Phen.* 184, 355-359 (2011). [1.8]
108. *Electron dynamics of transition metal compounds studied with resonant soft x-ray scattering*  
J. Jimenez-Mier, G. Herrera-Perez, P. Olalde-Velasco, G. Carabali, E. Chavira, P. de la Mora, W.L. Yang, J. Denlinger, A. Moewes, R. Wilks, *Proceedings of 6<sup>th</sup> International Symposium on Radiation Physics, March 7-10, 2010 Zacatecas, Mexico* – *Revista Mexicana de la Fisica* 57, 6-13 (2011). [0.3]
109. *Identifying Local Dopant Structures and their Impact on Magnetic Properties in Spintronic Materials*

- R.J. Green, G.S. Chang, X.Y. Zhang, A. Dinia, E.Z. Kurmaev, and A. Moewes, Phys. Rev. B 83, 115207-1-6 (2011). [3.8]
110. *Ca<sub>3</sub>N<sub>2</sub> and Mg<sub>3</sub>N<sub>2</sub>: unpredicted high-pressure behaviour of binary nitrides*  
C. Braun, S. Börger, T. Boyko, G. Miehe, H. Ehrenberg, P. Höhn, A. Moewes, and W. Schnick, Journal of the American Chemical Society 133, 4307-4315 (2011). [10.7]
111. *Valence Structure of Alkaline and Post-Transition Metal Oxides*  
J.A. McLeod, R.J. Green, N.A. Skorikov, L.D. Finkelstein, M. Abu-Samak, E.Z. Kurmaev, and A. Moewes, Oxide-based Materials and Devices II Book Series: Proceedings of SPIE 7940, 79400R (2011).
112. *Appearance of Ferromagnetism in Co-Doped CeO<sub>2</sub> Diluted Magnetic Semiconductors Prepared by Solid State Reaction*  
A. Bouaine, R.J. Green, S. Colis, P. Bazylewski, G.S. Chang, A. Moewes, E.Z. Kurmaev, and A. Dinia, Journal of Physical Chemistry C 115, 1566-1560 (2011). [4.5]
113. *Evaluation of Antioxidant Activity and Electronic Structure of Aspirin and Paracetamol*  
W. Motozaki, Y. Nagatani, Y. Kimura, K. Endo, T. Takemura, E. Z. Kurmaev, A. Moewes. J. Mol. Struct. 985, 63-69 (2011). [1.6]
114. *Charge transfer and band gap of ferrocene intercalated into TiSe<sub>2</sub>*  
A.N. Titov, Y.M. Yarmoshenko, P. Bazylewski, M.V. Yablonskikh, E.Z. Kurmaev, R. Wilks, A. Moewes, V.A. Tsurin, V.V. Fedorenko, O.N. Suvorova, S.Yu. Ketkov, M. Neumann, and G.S. Chang, Chem. Phys. Lett. 497, 187-190 (2010). [2.3]
115. *RIXS approach to local environment around impurity atoms in diluted magnetic semiconductors and dielectrics*  
G.S. Chang, E.Z. Kurmaev, L.D. Finkelstein, A. Moewes, and A. Dinia, J. Electr. Spectr. Rel. Phen. 181, 202-205 (2010) [0.9] (ICISS-11 conference)
116. *Material Properties and Structural Characterization of M<sub>3</sub>Si<sub>6</sub>O<sub>12</sub>N<sub>2</sub>:Eu<sup>2+</sup> (N=Ba, Sr) – A Comprehensive Study on a promising green phosphor for pc-LEDs*  
C. Braun, S.L. Börger, M. Seibald, G. Miehe, P.J. Schmidt, T.D. Boyko, O. Oeckler, A. Moewes, and W. Schnick, Chemistry – A European Journal 16, 9646-9657 (2010). [5.4]
117. *Correlation effects in Ni 3d states of LaNiPO*  
A.V. Lukoyanov, S.L. Skorniyakov, J.A. McLeod, M. Abu-Samak, R.G. Wilks, E.Z. Kurmaev, and A. Moewes, N.A. Skorikov, Yu.A. Izyumov, L.D. Finkelstein, V.I. Anisimov, and D. Johrendt, Phys. Rev. B 81, 235121-1-5 (2010). [3.5]
118. *Band gaps and Electronic structure of alkaline-earth and post-transition metal oxides*  
J.A. McLeod, R.G. Wilks, N.A. Skorikov, L.D. Finkelstein, M. Abu-Samak, E.Z. Kurmaev, and A. Moewes, Phys. Rev. B 81, 245123-1-9 (2010). [3.5]
119. *Electronic structure of Mn in (Zn,Mn)O probed by resonant X-ray emission spectroscopy*  
J. Jin, G.S. Chang, W. Xu, Y.X. Xu, D.W. Boukhvalov, L.D. Finkelstein, E.Z. Kurmaev, X.Y. Zhang, and A. Moewes, Sol. State Comm. 150, 1065-68 (2010). [1.8]
120. *Class of tunable wide band gap semiconductors  $\gamma$ -(Ge<sub>x</sub>Si<sub>1-x</sub>)<sub>3</sub>N<sub>4</sub>*  
T.D. Boyko, E. Bailey, A. Moewes, and P.F. McMillan, Phys. Rev. B 81, 155207-1-8 (2010). [3.5]
121. *Interfacial Properties and Characterization of Sc/Si Multilayers*

- T. Shendruk, A. Moewes, E.Z. Kurmaev, P. Ochin, H. Maury, J.-M. Andre, K. Le Gruen, and P. Jonnard, *Thin Solid Films* 518, 3808-3812 (2010). [1.7]
122. *Electronic structure of BiMeO<sub>3</sub> multiferroics and related oxides*  
J.A. McLeod, Z.V. Pchelkina, L.D. Finkelstein, E.Z. Kurmaev, R.G. Wilks, A. Moewes, I.V. Solovyev, A.A. Belik, and E. Takayama-Muromachi, *Phys. Rev. B* 81, 144103-1-10 (2010). [3.5]
123. *Valence band structure and X-ray spectra of oxygen deficient ferrites SrFeO<sub>x</sub>*  
V.R. Galakhov, E.Z. Kurmaev, M. Neumann, J.A. McLeod, A. Moewes, I.A. Leonidov, V.L. Kozhevnikov, and K. Kuepper, *J. Phys. Chem. C* 110, 5154-5159 (2010). [4.2]
124. *Element-specific electronic structure of Mn dopants and ferromagnetism of (Zn,Mn)O thin film*  
J. Jin, G.S. Chang, D.W. Boukhvalov, X.Y. Zhang, L.D. Finkelstein, W. Xu, Y.X. Zhou, E.Z. Kurmaev, and A. Moewes, *Thin Solid Films* 518, 2825-2829 (2010). [1.7]
125. *Electronic properties of pyroxenes NaCrSi<sub>2</sub>O<sub>6</sub> and NaFeSi<sub>2</sub>O<sub>6</sub>*  
S.V. Streltsov, J. McLeod, A. Moewes, G.J. Redhammer, and E.Z. Kurmaev, *Phys. Rev. B* 81, 045118-1-5 (2010). [3.5]
126. *Metal-insulator transition in NiS<sub>2-x</sub>Se<sub>x</sub>*  
J. Kunes, L. Baldassarre, B. Schächner, K. Rabia, C.A. Kuntscher, Dm.M. Korotin, V.I. Anisimov, J.A. McLeod, E.Z. Kurmaev, and A. Moewes, *Phys. Rev. B* 81, 03512201-6 (2010). [3.5]
127. *Structural models of FeSe<sub>x</sub>*  
E.Z. Kurmaev, J.A. McLeod, N.A. Skorikov, L.D. Finkelstein, A. Moewes, M.A. Korotin, Yu.A. Izyumov, Y.L. Xie, G. Wu, and X.H. Chen, *J. Phys.: Cond. Matt.* 21, 435702-1-6 (2009). [2.0]
128. *Effect of N, C and B interstitial atoms on local bonding structure in mechanically activated TiH<sub>2</sub>/h-BN, TiH<sub>2</sub>/C and TiH<sub>2</sub>/B mixtures*  
O.S. Morozova, T.I. Khomenko, Ch. Borchers, A.V. Leonov, E.Z. Kurmaev, A. Moewes, *J. Alloys & Compounds* 483, 309-312 (2009). [2.1] (14<sup>th</sup> International Symposium on Metastable and Nano-Materials)
129. *Contribution of Fe 3d-states to the Fermi level of CaFe<sub>2</sub>As<sub>2</sub>*  
E.Z. Kurmaev, J.A. McLeod, A. Buling, N.A. Skorikov, A. Moewes, M. Neumann, Yu.A. Izyumov, N. Ni, and P.C. Canfield, *Phys. Rev. B* 80, 054508-1-6 (2009). [3.5]
130. *Identifying valence structure in LiFeAs and NaFeAs with core-level spectroscopy*  
E.Z. Kurmaev, J.A. McLeod, N.A. Skorikov, L.D. Finkelstein, A. Moewes, Yu.A. Izyumov, and S. Clarke, *J. Phys.: Cond. Matt.* 21, 345701-6 (2009). [2.0]
131. *Strength of correlation in pnictides and its assessment by theoretical calculations and spectroscopy experiment*  
V.I. Anisimov, E.Z. Kurmaev, A. Moewes, and I.A. Izyumov, *Physica C* 469, 442-447 (2009). [1.079]
132. *A comparative theoretical and experimental study of the radiation induced decomposition of Glycine*  
R.G. Wilks, J.B. MacNaughton, H.-B. Kraatz, T. Regier, R.I.R. Blyth, and A. Moewes *J. Phys. Chem. A* 113, 5360-5366 (2009). [2.918]
133. *Electronic structure of hydrogenated amorphous Si<sub>1-x</sub>N<sub>x</sub> films using soft X-ray emission and absorption measurements*

- T. Boyko, S. Kasap, R. Johanson, S. Kobayashi, T. Aoki, and A. Moewes, *Physica Status Solidi A* 206, 935-939 (2009). [1.214]
134. *Ti/C and Ti/B Nanocomposites: Comparison of Sorption-Desorption Properties*  
O.S. Morozova, T.I. Khomenko, A.V. Leonov, C. Borchers, E. Kurmaev, A. Moewes, *J. Solid State Phenomena* 151, 203-207 (2009).
135. *Co and Al co-doping for ferromagnetism in ZnO:Co diluted magnetic semiconductors*  
G.S. Chang, E.Z. Kurmaev, D.W. Boukhvalov, L.D. Finkelstein, A. Moewes, H. Bieber, S. Colis, and A. Dinia, *J. Phys.: Cond. Matt.* 21, 056002-1-5 (2009). [1.886]
136. *Thermodynamic and kinetic factors effecting hydrogen absorption on metal hydrides*  
M. Reda and A. Moewes, *International Journal of Hydrogen Energy* 33, 7505-7506 (2008). [2.725]
137. *Determining the  $sp^2/sp^3$  bonding concentrations of carbon films using X-ray absorption spectroscopy*  
T. Hamilton, R.G. Wilks, M.V. Yablonskikh, Q. Yang, M. Foursa, A. Hirose, V.N. Vasilets, and A. Moewes, *Canadian Journal of Physics* 86, 1401-1407 (2008). [0.886]
138. *Characterization of oxide layers formed on electrochemically treated Ti by using soft X-ray absorption measurements*  
R.G. Wilks, E. Santos Jr., E.Z. Kurmaev, M.V. Yablonskikh, A. Moewes, N.K. Kuromoto, and G.A. Soares, *J. Electr. Spectr. Rel. Phen.* 169, 46-50 (2009). [1.082]
139. *X-ray emission and photoluminescence Spectroscopy of nanostructured Silica with implanted copper ions*  
D.A. Zatsepin, V.S. Kortov, E.Z. Kurmaev, N.V. Gavrilov, R.G. Wilks, and A. Moewes, *Phys. Solid State* 50, 2322-2326 (2008). [0.65]
140. *Unipolar-to-ambipolar conversion of rubrene thin-film transistors by organosilene self-assembled monolayer*  
J.H. Seo, G.S. Chang, R.G. Wilks, C.N. Whang, K.H. Chae, S.J. Cho, K.-H. Yoo, and A. Moewes, *J. Phys. Chem. B* 112, 16266 (2008). [4.086]
141. *X-ray spectra and electronic structures of the iron arsenide superconductors  $RFeAsO_{1-x}F_x$  ( $R=La, Sm$ )*  
E.Z. Kurmaev, R.G. Wilks, A. Moewes, N.A. Skorikov, Yu.A. Izyumov, L.D. Finkelstein, R.H. Li, and X.H. Chen, *Phys. Rev. B* 78, 220503R 1-4 (2008). [3.17]
142. *Ti/C and Ti/h-BN nanocomposites: comparison of hydrogen sorption/desorption properties*  
C. Borchers, O.S. Morozova, T.I. Khomenko, A.V. Leonov, E.Z. Kurmaev, A. Moewes, and A. Pundt, *Chem. Phys. Lett.* 465, 82-85 (2008). [2.207]
143. *Influence of 2-mercapto-5-nitrobenzimidazole treatment on the electronic characteristics of bottom-contact organic field-effect transistors*  
D.S. Park, W.C., S.W. Cho, J.H. Seo, I.S. Jeong, T.W. Kim, G.S. Chang, A. Moewes, K.H. Chae, K. Jeong, K.-H. Yoo, and C.N. Whang, *Organic Electronics* 9, 1010-1016 (2008). [3.879]
144. *X-ray spectra and electronic structure of Sc and Ti dihydrides*  
A.V. Galakhov, L.D. Finkelstein, E.Z. Kurmaev, R.G. Wilks, A. Moewes, V.K. Fedotov *J. Phys.: Cond. Matt.* 20, 335224-1-6 (2008). [1.886]
145. *Characterization of chemically treated bioactive Ti using soft X-ray fluorescence*

- E.Z. Kurmaev, R.G. Wilks, R. Filby, A. Moewes, L. Müller, and F.A. Müller, *Materials Science and Engineering C* 29, 136-139 (2009). [1.486]
146. *Defect-induced Ferromagnetism in Mn-doped Cu<sub>2</sub>O*  
G.S. Chang, E.Z. Kurmaev, D.W. Boukhvalov, A. Moewes, L.D. Finkelstein, M. Wei, and J.L. MacManus-Driscoll, *J. Phys.: Cond. Matt.* 20, 215215 (2008). [1.886]
147. *X-ray spectra and electronic structure of FeAs superconductors*  
E.Z. Kurmaev, R.G. Wilks, A. Moewes, N.A. Skorikov, Yu.A. Izyumov, L.D. Finkelstein, R.H. Li, and X.H. Chen, arXiv:0805.0668v1 [cond-matt.supr-con] 2008.
148. *Oxygen X-ray emission and absorption spectra as a probe of electronic structure in strongly correlated systems*  
E.Z. Kurmaev, R.G. Wilks, A. Moewes, L.D. Finkelstein, and S.N. Shamin, *Phys. Rev. B* 77, 165127-1-5 (2008). [3.17]
149. *Effect of h-BN additive on hydrogen sorption by Ti under mechanical treatment in H<sub>2</sub>/He flow*  
C. Borchers, O.S. Morozova, T.I. Khomenko, A.V. Leonov, A.V. Postnikov, E.Z. Kurmaev, A. Moewes, and A. Pundt, *J. Phys. Chem. C* 112, 5869-5879 (2008). [4.009]
150. *Energy Band structure and X-ray Spectra of Phenakite Be<sub>2</sub>SiO<sub>4</sub>*  
I.R. Shein, R. Wilks, A. Moewes, E.Z. Kurmaev, D.A. Zatsepin, A.I. Kukharenko, and S.O. Cholakh, *Phys. Sol. State* 50, 615-620 (2008). [0.65]
151. *The attachment of Amino Fragment to purine: Inner-shell structures and spectra*  
S. Saha, F. Wang, J.B. MacNaughton, A. Moewes, and D.P. Chong, *Journal of Synchrotron Radiation* 15, 151-157 (2008). [2.978]
152. *Substituent Effects in the Iron 2p and Carbon 1s edge Near-Edge X-ray Absorption Fine Structure (NEXAFS) Spectroscopy of Ferrocene Compounds*  
E. Otero, R.G. Wilks, T. Regier, R. Blyth, A. Moewes, and S.G. Urquhart, *J. Phys. Chem. A* 112, 624-634 (2008). [2.918]
153. *Effects of NH<sub>3</sub>, O<sub>2</sub>, and N<sub>2</sub> co-implantation on Cu out-diffusion and antimicrobial properties of copper plasma-implanted polyethylene*  
W. Zhang, J. Ji, Y. Zhang, Q. Yan, E.Z. Kurmaev, A. Moewes, J. Zhao, P.K. Chu, *Applied Surface Science* 253 8981-8985 (2007). [1.406]
154. *Probing Interfacial characteristics of rubrene/pentacene and pentacene/rubrene bilayers with soft X-ray spectroscopy*  
J.H. Seo, T.M. Pedersen, G.S. Chang, S.W. Cho, K.-H. Yoo, S.J. Cho, A. Moewes, and C.N. Whang, *J. Phys. Chem. B* 111, 9513-9518 (2007).
155. *Ti/C and Ti/h-BN nanocomposites: comparison of hydrogen sorption/desorption properties*  
O.S. Morozova, T.I. Khomenko, A.V. Leonov, Ch. Borchers, E.Z. Kurmaev, and A. Moewes, *Chemistry for Sustainable Development* 15, 203-211 (2007).
156. *Local electronic structure of Mn dopants in ZnO probed by resonant inelastic scattering*  
G.S. Chang, E.Z. Kurmaev, S.W. Jung, H.-J. Kim, G.-C. Yi, S.-I. Lee, M.V. Yablonskikh, T.M. Pedersen, A. Moewes, and L.D. Finkelstein, *J. Phys.: Cond. Matt.* 19, 276210-1-8 (2007).
157. *Effect of Co and O defects on the magnetism in Co-doped ZnO: Experiment and Theory*

- G.S. Chang, E.Z. Kurmaev, D.W. Boukhvalov, L.D. Finkelstein, S. Colis, T.M. Pedersen, A. Moewes, and A. Dinia, Phys. Rev. B 75, 195215-1-7 (2007).
158. *Electronic structure of NPB and BCP molecules probed by X-ray emission spectroscopy*  
J.H. Seo, C.Y. Kim, S.J. Kang, K.-H. Yoo, C.N. Whang, A. Moewes, and G.S. Chang Journal of Chemical Physics 126, 064706-1-5 (2007).
159. *Optical XAFS of ZnO Nanowires at the Zn K-edge and Related Phenomena*  
F. Heigl, X.H. Jeff Sun, S. Lam, T.-K. Sham, R. Gordon, D. Brewster, R. Rosenberg, G. Shenoy, M. Yablonskikh, J. MacNaughton, and A. Moewes, CP 882 X-ray Absorption Fine Structure – XAFS13, American Institute of Physics, 734-736 (2007).
160. *Post-annealing effect on the electronic structure of Mn atoms in Ga<sub>1-x</sub>Mn<sub>x</sub>As probed by resonant inelastic X-ray scattering*  
G.S. Chang, E. Z. Kurmaev, L.D. Finkelstein, H.K. Choi, W.O. Lee, Y.D. Park, T. Pedersen, A. Moewes, J. Phys.: Cond. Matt. 19, 076215-1-6 (2007).
161. *Electronic structure of a Mn<sub>12</sub> molecular magnet: Theory and experiment*  
D.W. Boukhvalov, M. Al-Saqr, E.Z. Kurmaev, A. Moewes, V.R. Galakhov, L.D. Finkelstein, S. Chiuzaian, M. Neumann, V.V. Dobrovitski, M.I. Katsnelson, A.I. Lichtenstein, B.N. Harmon, J.M. Northrup, and N. Dalal, Phys. Rev. B 75, 014419-1-4 (2007).
162. *X-ray Photoelectron and Carbon K $\alpha$  emission measurements and calculations of O-, CO, N-, and S-containing Substances*  
S. Shimada, T. Hiroi, T. Ida, M. Mizuno, K. Endo, E.Z. Kurmaev, and A. Moewes, J. of Polymer Science B: Polymer Physics 45, 162-172 (2007).
163. *An X-ray emission and density functional theory study of Zn<sub>1-x</sub>Mn<sub>x</sub>S*  
R.G. Wilks, E.Z. Kurmaev, L.M. Sandratskii, A.V. Postnikov, L.D. Finkelstein, T.P. Surkova, S.A. Lopez-Rivera, and A. Moewes, J. Phys.: Cond. Matt. 18, 10405-10412 (2006).
164. *Buffer layer effect on the structural and electrical properties of rubrene-based organic thin-film transistors*  
J.H. Seo, D.S. Park, S.W. Cho, C.Y. Kim, W.C. Jang, C.N. Whang, K.-H. Yoo, G.S. Chang, T. Pedersen, A. Moewes, K.H. Chae, S. J. Cho, Appl. Phys. Lett. 89, 163505-1-3 (2006).
165. *Experimental and Theoretical Investigation of the Electronic Structure of 5-Fluorouracil Compounds*  
J.B. MacNaughton, R.G. Wilks, J.S. Lee, and A. Moewes, J. Phys. Chem. B 110, 18180-18190 (2006).
166. *Soft X-ray absorption and emission characterization of nanodiamond prepared by explosive detonation*  
T. Hamilton, E.Z. Kurmaev, S.N. Shamin, P.Y. Detkov, S.I. Chukhaeva, and A. Moewes, Diamond and Related Materials 16, 350-352 (2007).
167. *X-ray absorption of nitrogen doped amorphous carbon films for determining sp<sup>2</sup>/sp<sup>3</sup> bonding concentrations*  
T. Hamilton, A. Moewes, M. Foursa, and A. Hirose, Radiation Physics and Chemistry 75, 1613-1616 (2006).
168. *Probing changes in the Mn 3d band of Sm<sub>0.525</sub>Sr<sub>0.475</sub>MnO<sub>3</sub> induced by oxygen isotope substitution*

- G.S. Chang, E.Z. Kurmaev, L.D. Finkelstein, N.A. Babushkina, A. Moewes, and T.A. Callcott, *Phys. Rev. B* 74, 125105-1-4 (2006).
169. *Solid versus solution: Examining the electronic structure of metallic DNA with soft X-ray spectroscopy and density functional theory*  
J.B. MacNaughton, M.V. Yablonskikh, A.H. Hunt, E.Z. Kurmaev, J.S. Lee, S.D. Wettig, and A. Moewes, *Phys. Rev. B* 74, 125101-1-5 (2006).
170. *Dependence of DNA Electronic Structure on Environmental and Structural Variations*  
J.B. MacNaughton, A. Moewes, J.S. Lee, S.D. Wettig, H.-B. Kraatz, L. Ouyang, W.-Y. Ching, *J. Phys. Chem. B* 110, 15742-15748 (2006).
171. *X-ray 2p photoelectron and  $L_{\alpha}$  resonant X-ray emission spectra of the 3d metals in  $Ni_2MnZ$  ( $Z=In, Sn, Sb$ ) Heusler alloys*  
M.V. Yablonskikh, A. Moewes, J. Braun, M.T. Kuchel, A.V. Postnikov, M. Neumann, J.D. Denlinger, and E.I. Shreder, *Phys. Rev. B* 74, 085103-1-11 (2006).
172. *Electronic structures of  $LiFePO_4$  and  $FePO_4$  studied using resonant inelastic X-ray scattering*  
A. Hunt, W.-Y. Ching, Y.-M. Chiang, and A. Moewes, *Phys. Rev. B* 73, 205120-1-10 (2006).
173. *Electronic structure and charge carriers in metallic DNA investigated by soft X-ray spectroscopy*  
J.B. MacNaughton, E.Z. Kurmaev, L.D. Finkelstein, J.S. Lee, S.D. Wettig, and A. Moewes, *Phys. Rev. B* 73, 205114-1-7 (2006).
174. *Clustering of impurity atoms in Co-doped anatase  $TiO_2$  thin films probed with soft X-ray fluorescence*  
G.S. Chang, E.Z. Kurmaev, D.W. Boukvalov, L.D. Finkelstein, D.H. Kim, T.-W. Noh, A. Moewes, and T.A. Callcott, *J. Phys. Cond. Matt.* 18, 4243-4251 (2006).
175. *Combined X-ray absorption spectroscopy and density functional theory examination of ferrocene labeled peptides*  
R.G. Wilks, J.B. MacNaughton, H.-B. Kraatz, T. Regier, and A. Moewes, *J. Phys. Chem. B* 110, 5955-5965 (2006).
176. *Uniaxial in-plane magnetic anisotropy of a CoPt film induced by ion irradiation*  
G.S. Chang, A. Moewes, S.H. Kim, J. Lee, K. Jeong, C.N. Whang, D.-H. Kim, and S.C. Shin, *Appl. Phys. Lett.* 88, 092504-1-3 (2006).
177. *On the bonding situation in  $TlCo_2Se_2$*   
M.V. Yablonskikh, R. Berger, U. Gelius, R. Lizarraga, T.B. Charikova, and E.Z. Kurmaev, and A. Moewes, *J. Phys. Cond. Matt.* 18, 1757-1768 (2006).
178. *The Origin of an Elastic Line in the  $L_3$  X-ray Emission Spectrum of Metallic Manganese*  
L.D. Finkelstein, I.A. Nebraskov, A.V. Lukoyanov, E.Z. Kurmaev, V.I. Anisimov, S. Kucas, A. Kynien, A. Moewes, J.-L. Wang, and Z. Zeng, *Physics of the Solid State* 48, 420-426 (2006).
179. *Influence of Graphite Addition on the Reactivity of Ti Powder with  $H_2$  under Ball Milling*  
C. Borchers, T.I. Khomenko, O.S. Morozova, A.V. Galakhov, E.Z. Kurmaev, J. MacNaughton, M.V. Yablonskikh, and A. Moewes, *J. Phys. Chem. B* 110, 196-204 (2006).

180. *Electronic structure of boron nitride single crystals and films*  
J.B. MacNaughton, A. Moewes, R.G. Wilks, X.T. Zhou, T.K. Sham, T. Taniguchi, C.Y. Chan, W.J. Zhang, I. Bello, S.T. Lee, and H. Hofsäss, Phys. Rev. B 72, 195113-1-8 (2005).
181. *Chemical reaction at the interface between pentacene and HfO<sub>2</sub>*  
S.J. Kang, Y. Yi, C.Y. Kim, K.-H. Yoo, A. Moewes, M.H. Cho, J.D. Denlinger, C.N. Whang, and G.S. Chang, Phys. Rev. B 72, 205328-1 – 6 (2005).
182. *Ion irradiation induced reduction of Fe<sup>3+</sup> to Fe<sup>2+</sup> in triethoxysilane films*  
R.G. Wilks, E.Z. Kurmaev, J.C. Pivin, A. Hunt, M.V. Yablonskikh, D.A. Zatsepin, A. Moewes, S. Shin, P. Palade, and G. Principi, J. Phys.: Cond. Matt. 17, 7023-7028 (2005).
183. *X-ray Photoelectron and Carbon K $\alpha$  Emission Spectral Analysis of Polymers by DFT Calculations using QM/MM Method*  
Y. Kimura, T. Hiroi, S. Shimada, M. Mizuno, K. Endo, E.Z. Kurmaev, and A. Moewes, J. Surf. Analysis 12, 213-217 (2005).
184. *An indirect probe of the half-metallic nature of LiFePO<sub>4</sub> using resonant inelastic X-ray scattering*  
A. Hunt, A. Moewes, W.-Y. Ching, Y.-M. Chiang, J. Phys. Chem. Sol. 66, 2290-2294 (2005).
185. *Resonantly Excited Cascade X-ray Emission from La*  
A. Moewes, R. Wilks, A.G. Kochur, and E.Z. Kurmaev, Phys. Rev. B 72, 075129-1-6 (2005).
186. *Plasma-enhanced synthesis of diamond nanocone films*  
Q. Yang, T. Hamilton, C. Xiao, A. Hirose, and A. Moewes, Thin Solid Films 494, 110-115 (2005).
187. *The effects of bias polarity on diamond deposition by hot-filament chemical vapor deposition*  
W. Chen, C. Xiao, Q. Yang, A. Moewes, and A. Hirose, Can. J. Phys. 83, 753 – 759 (2005).
188. *Local Environment of Fluorine Atoms in Sr<sub>2</sub>Ca<sub>n-1</sub>Cu<sub>n</sub>O<sub>2n+ $\delta$</sub> F<sub>2 $\pm$ y</sub> (n=2,3) High-Temperature Superconductors Grown under High Pressure*  
E.Z. Kurmaev, A. Moewes, R. Wilks, L.D. Lechkina, D.A. Zatsepin, T. Kawashima, and E. Takayama-Muromachi, Phys. Solid State 47, 1211 – 1215 (2005).
189. *Analysis of octadecyltrichlorosilane effects on organic thin film transistor by using soft X-ray fluorescence*  
S.J. Kang, Y. Yi, C.Y. Kim, C.N. Whang, K. Krochak, A. Moewes, G.S. Chang, and T.A. Callcott, Appl. Phys. Lett. 86, 232103-1-3 (2005).
190. *The L<sub>2</sub>:L<sub>3</sub> intensity ratio in soft X-ray emission spectra of 3d-metals*  
E.Z. Kurmaev, J.J. Rehr, A.L. Ankudinov, L.D. Finkelstein, P.F. Karimov, and A. Moewes, J. Electr. Spectr. Rel. Phenom. 148, 1-4 (2005).
191. *The electronic structure of DNA nucleobases*  
J. MacNaughton, A. Moewes and E.Z. Kurmaev, J. Physical Chemistry B 109, 7749-7757 (2005).
192. *Electronic structure of KTaO<sub>3</sub>: A combined spectroscopic investigation*  
K. Kuepper, A.V. Postnikov, A. Moewes, B. Schneider, M. Matteucci, H. Hesse, and M. Neumann, J. Phys.: Cond. Matt. 16, 8213-8219 (2004).



193. *Electronic structure of carbosulfide superconductors*  
E.Z. Kurmaev, N.A. Skorikov, A.V. Galakhov, P.F. Karimov, V.R. Galakhov, V.A. Trofimova, Yu.M. Yarmoshenko, A. Moewes, S.G. Chiuzbăian, M. Neumann, and K. Sakamaki, Phys. Rev. B 71, 024528-1-5 (2005).
194. *Experimental Evidence of the Hybridization of the Electron States of an Impurity and the Conduction Band in the HgSe:Fe System*  
V.I. Okulov, L.D. Sabirzyanova, E.Z. Kurmaev, L.D. Finkelstein, R.F. Karimov, A. Moewes, and S. Yu. Paranchich, JETP Letters 81, 72-74 (2005).
195. *Studying 4d – 4f transitions in Er using resonant inelastic scattering*  
A. Hunt, D. Muir and A. Moewes, J. Electr. Spectr. Rel. Phenom. 144-147, 573-576 (2005).
196. *Photon-in photon-out studies of Alq3 (tri-aluminum-8- hydroxyquinolate): synchrotron light excited optical luminescence and X-ray emission*  
P.-S.G. Kim, S.J. Naftel, T.K. Sham, I. Coulthard, Y.-F. Hu, A. Moewes, and J.W. Freeland, J. Electr. Spectr. Rel. Phenom. 144-147, 901-904 (2005).
197. *Resonant  $L_{\alpha,\beta}$  X-ray emission and  $L_{2,3}$  absorption spectra of 3d metals in  $Co_2MnZ$  ( $Z=Al, Ga, Sn, Sb$ ) Heusler alloys as an element-selective probe of spin-character of valence band*  
M.V. Yablonskikh, Yu.M. Yarmoshenko, I.V. Soloviev, E.Z. Kurmaev, L.-C. Duda, T. Schmitt, M. Magnuson, J. Nordgren, and A. Moewes, J. Electr. Spectr. Rel. Phenom. 144-147, 765-769 (2005).
198. *Analysis of the electronic structure of human hemoglobin from soft X-ray emission*  
A.V. Soldatov, A.N. Kravtsova, E.N. Fedorovich, A. Ankudinov, A. Moewes, and E.Z. Kurmaev, J. Electr. Spectr. Rel. Phenom. 144-147, 279-282 (2005).
199. *Monitoring 5p–4d soft X-ray emission of La when exciting through the low-lying 3d – 4f threshold*  
A. Moewes, R. Wilks, A. Kochur, and E.Z. Kurmaev, J. Electr. Spectr. Rel. Phenom. 144-147, 577-580 (2005).
200. *Properties of Non-Equivalent Sites and Band Gap of Spinel-Phase Silicon Nitride*  
S. Leitch, A. Moewes, L. Ouyang, W.Y. Ching, and T. Sekine, J. Phys.: Cond. Matt. 16, 6469-6476 (2004).
201. *Influence of the Coulomb Parameter U on Partial Density of States of  $CuGeO_3$*   
A.V. Galakhov, V.R. Galakhov, V.I. Anisimov, E.Z. Kurmaev, A.V. Sokolov, L. Gridneva, V.V. Maltsev, L.I. Leonyuk, A. Moewes, S. Bartkowski, M. Neumann, and J. Nordgren, Europ. Phys. J. B 41, 295-300 (2004).
202. *The electronic structure and optical properties of silicon nanowires: a study using X-ray excited optical luminescence and X-ray emission spectroscopy*  
T.K. Sham, S.J. Naftel, P.-S.G. Kim, R. Sammynaiken, Y.H. Tang, I. Coulthard, A. Moewes, J.W. Freeland, Y.-F. Hu, S.T. Lee, Phys. Rev. B 70, 0453131-0453138 (2004).
203. *Soft X-ray Spectroscopy of Nucleobases, B-DNA and Ferrocene-proline conjugates*  
A. Moewes, J. MacNaughton, R. Wilks, J.S. Lee, S.D. Wettig, H.-B. Kraatz, and E.Z. Kurmaev, J. Electr. Spec. Rel. Phen. 137-140, 817-822 (2004).
204. *Resonant inelastic soft X-ray scattering and electronic structure of LiBC*  
P.F. Karimov, N.A. Skorikov, E.Z. Kurmaev, L.D. Finkelstein, S. Leitch, J. MacNaughton, A. Moewes, and T. Mori, J. Phys.: Cond. Matt. 16, 5137-5142 (2004).

205. *Soft X-ray emission studies of biomaterials*  
E.Z. Kurmaev, J.P. Werner, A. Moewes, S. Chiuzbăian, M. Bach, W.-Y. Ching, W. Motozaki, T. Otsuka, S. Matsuya, K. Endo, and M. Neumann, J. Electr. Spec. Rel. Phen. 137-140, 811-815 (2004).
206. *Electron correlation effects in band structure of magnetic clusters  $Mn_{12}$  and  $Fe_8$*   
D.W. Boukhvalov, E.Z. Kurmaev, A. Moewes, S. Chiuzbăian, V.R. Galakhov, L.D. Finkelstein, M. Neumann, M.I. Katsnelson, V.V. Dobrovitski, and A.L. Lichtenstein, J. Electr. Spec. Rel. Phen. 137-140, 735-739 (2004).
207. *Electronic Structure of Transition-Metal Dicyanamides  $Me[N(CN)_2]_2$  ( $Me=Mn, Fe, Co, Ni, Cu$ )*  
D.O. Demchenko, A.Y. Liu, E.Z. Kurmaev, L.D. Finkelstein, V.R. Galakhov, A. Moewes, S.G. Chiuzbăian, M. Neumann, C.R. Kmety, and K.L. Stevenson, Phys. Rev. B 69, 2051051-2051058 (2004).
208. *Tight-Binding Model for the X-ray Absorption and Emission Spectra of Dilute  $GaN_xAs_{1-x}$  at the Nitrogen K-Edge*  
E. Nodwell, M. Adamczyk, A. Ballestad, T. Tiedje, S. Webster, A. Moewes, T. van Buuren, and E.Z. Kurmaev, Phys. Rev B 69, 155210-155213 (2004).
209. *Testing the magnetism of polymerized fullerene*  
D.W. Boukhvalov, P.F. Karimov, E.Z. Kurmaev, T. Hamilton, A. Moewes, L.D. Finkelstein, M.I. Katsnelson, V.A. Davydov, A.V. Rakhmanina, T.L. Makarova, Y. Kopelevich, S. Chiuzbăian, and M. Neumann, Phys. Rev. B 69, 1154251-1154254 (2004).
210. *Electronic structure and thermoelectric properties of skutteride antimonides*  
E.Z. Kurmaev, A. Moewes, I.R. Shein, L.D. Finkelstein, A.L. Ivanovskii, and H. Anno, J. Phys.: Cond. Matt. 16, 979-987 (2004).
211. *Analysis of Electron Spectra of Carbon Allotropes (Diamond, Graphite, Fullerene) by DFT Calculations using the Model Molecules*  
K. Endo, S. Koizumi, T. Otsuka, T. Ida, T. Morohashi, J. Onoe, A. Nakao, E.Z. Kurmaev, A. Moewes, D.P. Chong, J. Physical Chemistry A 107, 9403-9408 (2003).
212. *Isomer structure of high-pressure hydrofullerene probed by soft X-ray emission*  
E.Z. Kurmaev, A. Moewes, T. Ida, S. Danielache, K. Endo, I.O. Bashkin, A.I. Harkunov, and A.P. Moravsky, Journal of Molecular Structure 639, 27-33 (2003).
213. *The electronic structure and chemical bonding of Vitamin  $B_{12}$*   
E.Z. Kurmaev, A. Moewes, L. Ouyang, L. Randaccio, P. Rulis, W.Y. Ching, M. Bach, and M. Neumann, Europhysics Letters 62, 582-587 (2003).
214. *X-ray emission spectroscopy study of the Verwey transition in  $Fe_3O_4$*   
A. Moewes, E.Z. Kurmaev, L.D. Finkelstein, A.V. Galakhov, S. Gota, M. Gautier-Soyer, J.P. Rueff, and C.F. Hague, J. Phys.: Cond. Matt. 15, 2017-2022 (2003).
215. *Band dispersion of  $MgB_2$ , graphite and diamond from resonant inelastic scattering*  
A.V. Sokolov, E.Z. Kurmaev, S. Leitch, A. Moewes, J. Kortus, L.D. Finkelstein, N.D. Skorikov, C. Xiao, and A. Hirose, J. Phys.: Cond. Matt. 15, 2081-2089 (2003).
216. *Half-metallic electronic structure of  $CrO_2$  in resonant scattering*  
E.Z. Kurmaev, A. Moewes, S.M. Butorin, M.I. Katsnelson, L.D. Finkelstein, J. Nordgren, and P.M. Tedrow, Phys. Rev. B 67, 155105-1-4 (2003).
217. *Electronic structure of magnetic molecules  $V_{15}$ : LDA+U calculations, X-ray emissions, and photoelectron spectra*

- D.W. Boukhvalov, E.Z. Kurmaev, A. Moewes, D.A. Zatsepin, V.M. Cherkashenko, S.N. Nemnonov, L.D. Finkelstein, Y.M. Yarmoshenko, M. Neumann, V.V. Dobrovitski, M.I. Katsnelson, A.I. Lichtenstein, B.N. Harmon, and P. Kögerler, *Phys. Rev. B* 67, 134408-1-8 (2003).
218. *X-ray emission spectra of vanadium atoms in a new series of (Cu,V) based high- $T_c$  superconductors*  
E.Z. Kurmaev, A. Moewes, G.T. Woods, T.A. Callcott, N.D. Zhigadlo, E. Takayama-Muromachi, V.R. Galakhov, and D.L. Ederer, *J. Solid State Chemistry* 170, 188-191 (2003).
219. *Electronic Structure and Bonding in Vitamin B<sub>12</sub> Cyanocobalamin*  
L. Ouyang, L. Randaccio, P. Rulis, E.Z. Kurmaev, A. Moewes, and W.Y. Ching, *J. Molecular Structure: (theor. Chem.)* 622, 221-227 (2003).
220.  *$\sigma$  and  $\pi$ -band dispersion of graphite from polarized resonant inelastic X-ray scattering measurements*  
A.V. Sokolov, E.Z. Kurmaev, J. MacNaughton, A. Moewes, N.A. Skorikov, and L.D. Finkelstein, *JETP letters* 77, 108-111 (2003).
221. *Interlayer conduction band states in graphite-sulfur composites*  
E.Z. Kurmaev, A.V. Galakhov, A. Moewes, S. Moehlecke, and Y. Kopelevich, *Phys. Rev. B* 66, 193402-1-3 (2002).
222. *Electronic structure of niobium oxides*  
E.Z. Kurmaev, A. Moewes, O.G. Bureev, I.A. Nekrasov, V.M. Cherkashenko, M.A. Korotin, and D.L. Ederer, *J. Alloys Comp.* 347, 213-218 (2002).
223. *Angular rotation of magnetic hysteresis of ion-irradiated ferromagnetic thin films*  
G.S. Chang, S.H. Kim, S.W. Shin, A. Moewes, T.A. Callcott, K. Jeong, and C.N. Whang, *Appl. Phys. Lett.* 81, 3016-3018 (2002).
224. *Local electronic structure of doping atoms in  $MA_2Ca_{(n-1)}Cu_nO_{(2n+3)}$  high- $T_c$  superconductors with  $[M-12(n-1)n]$  type structures*  
E.Z. Kurmaev, A. Moewes, N.D. Zhigadlo, E. Takayama-Muromachi, I.A. Nekrasov, O.A. Bureev, G.T. Woods, T.A. Callcott, Y.M. Yarmoshenko, S.N. Shamin, D.L. Ederer, and M. Yanagihara, *Surface Review Letters* 9, 1345-1350 (2002).
225. *Polymer conversion into amorphous ceramics by ion irradiation*  
E.Z. Kurmaev, A. Moewes, J.-C. Pivin, M. Bach, K. Endo, T. Ida, S. Shimada, M. Neumann, S.N. Shamin, D.L. Ederer, and M. Iwami, *Journal of Materials Science* 37, 3789-3793 (2002).
226. *Effect of Co-doping on the electronic structure of  $MgCNi_3$*   
I.R. Shein, A.L. Ivanovskii, E.Z. Kurmaev, A. Moewes, S. Chiuzbăian, L.D. Finkelstein, M. Neumann, Z.A. Ren, G.C. Che, *Phys. Rev. B* 66, 024520-1-5 (2002).
227. *Probing oxygen and nitrogen bonding sites in chitosan by X-ray emission*  
E.Z. Kurmaev, S. Shin, M. Watanabe, R. Eguchi, Y. Ishiwata, T. Takeuchi, A. Moewes, D.L. Ederer, Y. Gao, M. Iwami, and M. Yanagihara, *J. Elec. Spec. Rel. Phen.* 125, 133-138 (2002).
228. *Electronic structure of the molecule-based magnet  $Mn[N(CN)_2]_2$  from theory and experiment*  
M.R. Pederson, A.Y. Liu, T. Baruah, E.Z. Kurmaev, A. Moewes, S. Chiuzbăian, M. Neumann, C.R. Kmetz, K.L. Stevenson, and D.L. Ederer, *Phys. Rev. B* 66, 014446-1-8 (2002).

229. *Electronic structure of alkali metal-doped  $M_8Si_{46}$  ( $M=Na, K$ ) clathrates*  
A. Moewes, E.Z. Kurmaev, J.S. Tse, M. Geshi, M.J. Ferguson, V.A. Trofimova, and Y.M. Yarmoshenko, Phys. Rev. B 65, 1531061-1531063 (2002).
230. *Valence band spectra of BEDT-TTF and TTF-based magnetic charge-transfer salts*  
E.Z. Kurmaev, A. Moewes, S. Chiuzbăian, L.D. Finkelstein, M. Neumann, S.S. Turner, and P. Day, Phys. Rev. B 65, 235106-235111 (2002).
231. *Soft X-ray fluorescence measurements in materials science*  
E.Z. Kurmaev, A. Moewes and D.L. Ederer, X-ray Spectrometry 31, 219-224 (2002).
232. *Characterization of  $CN_x$ -films by X-ray Fluorescence Measurements*  
E.Z. Kurmaev, R.P. Winarski, A. Moewes, S.N. Shamin, D.L. Ederer, J.Y. Feng and S.S. Turner, Thin Solid Films 402, 60-64 (2002).
233. *The electronic structure of TPD films grown by different methods*  
E.Z. Kurmaev, K. Endo, T. Ida, S.Y. Kim, G.S. Chang, A. Moewes, N.Y. Kim, C.N. Whang, and D.L. Ederer, Organic Electronics 3, 15-21 (2002).
234. *Electronic structure of  $MgB_2$ : X-ray emission and absorption studies*  
E.Z. Kurmaev, I.I. Lyakhovskaya, J. Kortus, A. Moewes, N. Miyata, M. Demeter, M. Neumann, M. Yanagihara, M. Watanabe, T. Muranaka, and J. Akimitsu, Phys. Rev. B 65, 134509-134512 (2002).
235. *Electronic structure of charge transfer salts*  
E. Z. Kurmaev, A. Moewes, U. Schwingenschlögl, R. Claessen, M. I. Katsnelson, H. Kobayashi, S. Kagoshima, Y. Misaki, D.L. Ederer, K. Endo, and M. Yanagihara, Phys. Rev. B 64, 233107-1-233107-4 (2001).
236. *Multi-Atom Resonances and Soft X-ray Emission*  
A. Moewes and E.Z. Kurmaev, Nucl. Instr. Meth. A, 467, 1529-1532 (2001).
237. *X-ray transitions for studying the electronic structure of 5d metals*  
E.Z. Kurmaev, A. Moewes, Z.V. Pchelkina, I.A. Nekrasov, A.A. Rempel, and D.L. Ederer, Phys Rev. B 64, 73108-73109 (2001).
238. *The electronic structure of Ion Beam Mixed ferromagnetic multilayered films*  
G.S. Chang, S.H. Kim, K.H. Chae, E.Z. Kurmaev, V. Galakhov, A. Moewes, Y.P. Lee, K. Jeong, C.N. Whang, J. Electr. Spectr. Relat. Phenom. 114, 807-811 (2001).
239. *Electronic structure of graphite fluorides*  
E.Z. Kurmaev, A. Moewes, D.L. Ederer, H. Ishii, K. Seki, M. Yanagihara, F. Okino, and H. Touhara, Physics Letters A 288, 340-344 (2001).
240. *Local and electronic structure of carbon and nitrogen atoms in oxycarbonitrate superconductors*  
E.Z. Kurmaev, A. Moewes, N.D. Zhigadlo, E. Takayama-Muromachi, Y.M. Yarmoshenko, S.N. Shamin, and D.L. Ederer, Physica C 363, 55-59 (2001).
241. *Electronic structure of thiophenes and phtalocyanines*  
E.Z. Kurmaev, S.N. Shamin, V.R. Galakhov, A. Moewes, T. Otsuka, S. Koizume, K. Endo, H.E. Katz, M. Bach, M. Neumann, D.L. Ederer, and M. Iwami, Phys. Rev. B 64, 45211-45217 (2001).
242. *X-ray emission  $TaN_3$  and  $Nb L_3$  spectra of  $NbC-TaC$  Solid Solutions*  
V.M. Cherkashenko, E.Z. Kurmaev, S.Z. Nazarova, A.L. Ivanovskii, A.I. Gusev, A. Moewes, D.L. Ederer, Russ. J. Inorganic Chem. 46, 892-897 (2001).
243. *Spectroscopic observation of polaron-lattice band structure in conducting polymers: X-ray fluorescence measurements of polyaniline*

- E.Z. Kurmaev, A. Moewes, M. Magnuson, J.-H. Guo, S.M. Butorin, J. Nordgren, D.L. Ederer, and M. Iwami, *J. Phys. Cond.: Matt.* 13, 3907-3912 (2001).
244. *Theoretical X-ray photoelectron and emission spectra of Si- and S-containing polymers by density-functional theory calculations using model molecules*  
K. Endo, S. Shimada, T. Ida, M. Suhara, E.Z. Kurmaev, A. Moewes, and D.P. Chong, *Journal of Molecular Structure* 561, 17-28 (2001).
245. *No multiatom resonances observed in X-ray fluorescence*  
A. Moewes, E.Z. Kurmaev, and D.L. Ederer, and T.A. Callcott, *Phys. Rev. B* 62, 15427-15430 (2000).
246. *Soft X-ray fluorescence and photoluminescence of Si nanocrystals embedded in SiO<sub>2</sub>*  
G.S. Chang, J.H. Son, K.H. Chae, C.N. Whang, E.Z. Kurmaev, S.N. Shamin, V.R. Galakhov, A. Moewes, D.L. Ederer, *Appl. Phys. A* 72, 303-306 (2001).
247. *X-ray fluorescence measurements of advanced organic materials*  
E.Z. Kurmaev, A. Moewes, K. Endo, and D.L. Ederer, *J. Electr. Spectr. Relat. Phenom.* 114-116, 889-894 (2001).
248. *Diffusion of TiN into aluminum films measured by soft X-ray spectroscopy and Rutherford backscattering*  
T.M. Schuler, D.L. Ederer, N. Rudzycki, G. Glass, W.A. Hollerman, A. Moewes, M. Kuhn, and T.A. Callcott, *J. Vac. Sci. Technol. A* 19, 2259-2266 (2001).
249. *Soft X-ray fluorescence study of the quasi-one-dimensional Heisenberg antiferromagnet Tetraphenylverdazyl*  
E.Z. Kurmaev, V.R. Galakhov, S. Shimada, T. Otsuka, K. Endo, S. Stadler, D.L. Ederer, A. Moewes, H. Schuermann, M. Neumann, S. Tomiyoshi, N. Azuma, and M. Iwami, *Phys. Rev. B* 62, 15660-15665 (2000).
250. *Resonant mixing of widely separated intermediate states and charge transfer at the 4d-4f resonance of La compounds*  
A. Moewes, A.V. Postnikov, E.Z. Kurmaev, M.M. Grush, and D.L. Ederer, *Europhysics Letters* 49, No. 5, 665-671 (2000).
251. *Interaction of Cu 3d and O 2p states in Mg<sub>1-x</sub>Cu<sub>x</sub>O-solid solutions with the NaCl-structure: X-ray photoelectron and X-ray emission study*  
V.R. Galakhov, L.D. Finkelstein, E.Z. Kurmaev, D.A. Zatsepin, A.A. Samokhvalov, S.V. Naumov, G.K. Tatarinova, M. Demeter, S. Bartkowski, M. Neumann, and A. Moewes, *Phys. Rev. B* 62, 4922-4926 (2000).
252. *Electronic structure of molecular superconductors containing paramagnetic 3d ions*  
E.Z. Kurmaev, V.R. Galakhov, A. Moewes, S. Shimada, K. Endo, S.S. Turner, P. Day, R.N. Lyubovskaya, D.L. Ederer, and M. Iwami, *Phys. Rev. B* 62, 11380-11383 (2000).
253. *Soft X-ray Scattering Dominates Emission near the Giant Resonance of the Rare Earth Compounds*  
A. Moewes, S. Stadler, R.P. Winarski, D.L. Ederer, and T.A. Callcott, *J. Elec. Spec. Rel. Phen.* 110-111, 189-196, (2000).
254. *Chemical reactions in polymers induced by ion beam mixing: Fluorescence X-ray measurements*

- E.Z. Kurmaev, R.P. Winarski, J.-C. Pivin, D.L. Ederer, S.N. Shamin, A. Moewes, K. Endo, T. Ida, G.S. Chang, and C.N. Wang, *J. Elec. Spec. Rel. Phen.* 110-111, 87-103 (2000).
255. *The Effects of Boron Impurities on the Atomic Bonding and Electronic Structure of Ni<sub>3</sub>Al*  
R.P. Winarski, T. Eskildsen, S. Stadler, J. van Ek, D.L. Ederer, E.Z. Kurmaev, M.M. Grush and T.A. Callcott, *J. Elec. Spec. Rel. Phen.* 110-111, 69-74 (2000).
256. *Electronic Structures of the Tungsten Borides WB, W<sub>2</sub>B, and W<sub>2</sub>B<sub>5</sub>*  
S. Stadler, R.P. Winarski, J.M. McLaren, D.L. Ederer, J. van Ek, A. Moewes, M.M. Grush, T.A. Callcott, and R.C.C. Perera, *J. Elec. Spec. Rel. Phen.* 110-111, 75-86 (2000).
257. *Electronic structure of Cu<sub>1-x</sub>Ni<sub>x</sub>Rh<sub>2</sub>S<sub>4</sub> and CuRh<sub>2</sub>Se<sub>4</sub>: band structure calculations, X-ray photoemission and fluorescence measurements*  
G.L.W. Hart, W.E. Pickett, E.Z. Kurmaev, D. Hartmann, M. Neumann, A. Moewes, D.L. Ederer, R. Endo, K. Tanigushi, and S. Nagata, *Phys. Rev. B* 61, 4230-4237 (2000).
258. *Resonant Raman Scattering in Nd<sub>2</sub>O<sub>3</sub> and the Electronic Structure of Sr<sub>2</sub>RuO<sub>4</sub> Studied by Synchrotron Radiation Excitation*  
D.L. Ederer, A. Moewes, E.Z. Kurmaev, T.A. Callcott, M.M. Grush, S. Stadler, R.P. Winarski, R.C.C. Perera, and L.J. Terminello, *J. Phys. Chem. Solids* 61, 435-444 (2000).
259. *Ion-implantation effects in Al<sub>2</sub>O<sub>3</sub>: X-ray fluorescence measurements*  
E.Z. Kurmaev, A. Moewes, V.R. Galakhov, D.L. Ederer and T. Kobayashi, *Nucl. Instr. Meth. B* 168, 395-398 (2000).
260. *Combined study for KNbO<sub>3</sub> and KTaO<sub>3</sub> by different techniques of photoelectron and X-ray emission spectroscopy*  
A.V. Postnikov, B. Schneider, M. Neumann, D. Hartmann, H. Hesse, A. Moewes, E.Z. Kurmaev, and M. Matteucci, *J. Phys. Chem. Sol.* 61, 265-269 (2000).
261. *Electronic properties of Ion-Beam Mixed Co/Pt multilayered films*  
G.S. Chang, S.H. Kim, J.H. Son, S.W. Shin, K.H. Chae, J. Lee, K. Jeong, C.N. Whang, E.Z. Kurmaev, A. Moewes, and Y.P. Lee, *J. Kor. Phys. Soc.* 37, 438-442 (2000).
262. *Electronic Structure of KNbO<sub>3</sub>: Nb M<sub>4,5</sub> X-ray Fluorescence Measurements*  
A. Moewes, A.V. Postnikov, B. Schneider, E.Z. Kurmaev, M. Matteucci, V.M. Cherhashenko, D. Hartmann, H. Hesse, and M. Neumann, *Phys. Rev. B* 60, 4422-4425 (1999).
263. *Band Approach to the excitation energy dependence of soft X-ray fluorescence of TiO<sub>2</sub>*  
L.D. Finkelstein, E.Z. Kurmaev, M.A. Korotin, A. Moewes, B. Schneider, S.M. Butorin, J-H. Guo, D. Hartmann, M. Neumann, and D.L. Ederer, *Phys. Rev. B* 60, 2212-2217 (1999).
264. *Decay mechanisms of the 4d core hole through the 4d-4f resonance in Dysprosium*  
A. Moewes, M.M. Grush, T.A. Callcott, and D.L. Ederer, *Phys. Rev. B* 60, 15728-15731 (1999).
265. *X-ray fluorescence study of organic-inorganic polymer conversion into ceramics induced by ion irradiation*

- E.Z. Kurmaev, A. Moewes, M. Krietemeyer, K. Endo, T. Ida, S. Shimada, R.P. Winarski, M. Neumann, S.N. Shamin, and D.L. Ederer, *Phys. Rev. B* 60, 15100-15106 (1999).
266. *Probing electron correlation, charge-transfer and Coster-Kronig transitions at the 3d and 4d thresholds of Nd by resonant inelastic scattering*  
A. Moewes, D.L. Ederer, M.M. Grush and T.A. Callcott, *Phys. Rev. B* 59, 5452-5456 (1999).
267. *Resonant inelastic scattering at the 3d and 4d thresholds of LaAlO<sub>3</sub>*  
A. Moewes, American Institute of Physics proceedings 506, 18<sup>th</sup> Conf. On X-ray and Inner-shell Processes, Chicago (1999), publ. by AIP, Melville, New York, page 304-311 (2000).
268. *Mechanism for interfacial adhesion strength of an ion beam mixed Cu/polyimide with a thin buffer layer*  
G.S. Chang, K.H. Chae, C.N. Whang, E.Z. Kurmaev, D.A. Zatsepin, R.P. Winarski, D.L. Ederer, A. Moewes, and Y.P. Lee, *Appl. Phys. Lett.* 74, 522-524 (1999).
269. *Study of 4f inner shell excitations in Gd and Tb using resonant inelastic soft X-ray scattering*  
A. Moewes, R.P. Winarski, D.L. Ederer, M.M. Grush and T.A. Callcott, *J. Elec. Spec. Rel. Phen.* 101-103, 617-622 (1999).
270. *X-ray Emission and Photoelectron Spectra of Pr<sub>0.5</sub>Sr<sub>0.5</sub>MnO<sub>3</sub>*  
E.Z. Kurmaev, M.A. Korotin, V.R. Galakhov, L.D. Finkelstein, E.I. Zabolotsky, M.N. Efremova, N.I. Lobashevskaya, S. Stadler, D.L. Ederer, A. Moewes, S. Bartkowski, M. Neumann, J. Matsuno, A. Fujimori, and J. Mitchell, *Phys. Rev. B* 59, 12799-12806 (1999).
271. *X-ray Fluorescence measurements of organic superconductors k-(ET)<sub>2</sub>Cu[N(CN)<sub>2</sub>]Br and k-(ET)<sub>2</sub>Cu(NCS)<sub>2</sub>*  
E.Z. Kurmaev, S.N. Shamin, Y.-N. Xu, W.Y. Ching, A. Moewes, D.L. Ederer, E.B. Yagubskii, and N.D. Kushch, *Phys. Rev. B* 60, 13169-13174 (1999).
272. *Examples of soft X-ray emission and inelastic scattering excited by synchrotron radiation*  
D.L. Ederer, E.Z. Kurmaev, S. Shin, A. Moewes, M. Grush, T.A. Callcott, R.C.C. Perera, J. van Ek, S. Stadler, R. Winarski, L.J. Terminello, and L. Zhou, *J. Alloys Compounds* 286, 47-55 (1999).
273. *Electronic Structure of Superconducting Inorganic Polymer (SN)<sub>x</sub>*  
E.Z. Kurmaev, A.I. Poteryaev, V.I. Anisimov, I. Karla, A. Moewes, B. Schneider, M. Neumann, D.L. Ederer, and R.N. Lyubovskaya, *Physica C: Superconductivity* 321, 191-198 (1999).
274. *Radiation-Induced Degradation of Polyethersulphone Films Studied by Fluorescent X-ray Emission Spectroscopy*  
E.Z. Kurmaev, R.P. Winarski, K. Endo, T. Ida, A. Moewes, D.L. Ederer, J.-C. Pivin, S.N. Shamin, V.A. Trofimova, and Y.M. Yarmoshenko, *Nucl. Instr. Meth. B* 155, 431-439 (1999).
275. *X-ray emission and photoelectron spectra of Pr<sub>0.5</sub>Sr<sub>0.5</sub>MnO<sub>3</sub>*  
E.Z. Kurmaev, M.A. Korotin, V.R. Galakhov, L.D. Finkelstein, E.I. Zabolotsky, N.N. Efremova, S. Stadler, D.L. Ederer, A. Moewes, S. Bartkowski, M. Neumann, J.

- Matsuno, T. Mizokawa, A. Fujimori, and J. Mitchell, *J. Electr. Spectr. Relat. Phenom.* 101-103, 793-798 (1999).
276. *X-ray emission study of ion beam mixed Cu/Al films on polyimide*  
E.Z. Kurmaev, D.A. Zatsepin, R.P. Winarski, S. Stadler, D.L. Ederer, A. Moewes, V.V. Fedorenko, S.N. Shamin, V.R. Galakhov, G.S. Chang, and C.N. Wang, *J. Vac. Sci. Technol.* 17, 593-596 (1999).
277. *Soft X-ray fluorescence measurements of polyimide films*  
R.P. Winarski, D.L. Ederer, E.Z. Kurmaev, S.N. Shamin, K. Endo, T. Ida, A. Moewes, G.S. Chang, S.Y. Kim, and C.N. Wang, *Thin Solid Films* 357, 91-97 (1999).
278. *Soft X-ray Fluorescence Measurements of Irradiated Polyimide and Polycarbosilane Films*  
E.Z. Kurmaev, R.P. Winarski, D.L. Ederer, J.-C. Pivin, S.N. Shamin, A. Moewes, G.S. Chang, and C.N. Wang, *J. Electr. Spectr. Relat. Phenom.* 101-103, 565 (1999).
279. *Elastic and inelastic scattering of 4d inner shell electrons in (Y,Gd)<sub>2</sub>O<sub>3</sub> studied by synchrotron radiation excitation*  
A. Moewes, T. Eskildsen, D.L. Ederer, J. Wang, J. McGuire, and T.A. Callcott, *Phys. Rev. B, Rap. Comm* 57, R8059-R8062 (1998).
280. *Core-hole induced charge-transfer in lanthanum and Coster-Kronig enhanced fluorescence at the 3d threshold of LaAlO<sub>3</sub> studied by resonant inelastic scattering*  
A. Moewes, S. Stadler, R.P. Winarski, M.M. Grush, T.A. Callcott, and D.L. Ederer, *Phys. Rev. B* 58, Rap. Comm. R15951-R15954 (1998).
281. *X-ray Emission spectra and electronic structure of CuIr<sub>2</sub>S<sub>4</sub> and CuIr<sub>2</sub>Se<sub>4</sub>*  
E.Z. Kurmaev, V.R. Galakhov, D.A. Zatsepin, V.A. Trofimova, S. Stadler, D.L. Ederer, A. Moewes, M.M. Grush, T.A. Callcott, J. Matsuno, A. Fujimori, and S. Nagata, *Solid State Commun.* 108, 235-239, (1998).
282. *Soft X-ray emission spectroscopy of early-transition-metal compounds*  
S. Shin, M. Fujisawa, H. Ishii, Y. Harada, M. Watanabe, M.M. Grush, T.A. Callcott, R.C.C. Perera, E.Z. Kurmaev, A. Moewes, R. Winarski, S. Stadler, and D.L. Ederer, *J. Elec. Spec. Rel. Phen.* 92, 197-205 (1998).
283. *Soft X-ray fluorescence measurements of Irradiated polymer films*  
R.P. Winarski, D.L. Ederer, J.C. Pivin, E.Z. Kurmaev, S.N. Shamin, A. Moewes, G.S. Chang, C.N. Whang, K. Endo, and T. Ida, *Nucl. Instr. Meth., B* 145, 401-408 (1998).
284. *Soft X-ray Emission Excited Resonantly and Nonresonantly by Synchrotron Radiation*  
D.L. Ederer, J.A. Carlisle, J. Jimenez, J.J. Jia, Ling Zhou, T.A. Callcott, R.C.C. Perera, A. Moewes, L.J. Terminello, E. Shirley, A. Asfaw, J. van Ek, E. Morikawa and F.J. Himpsel, 17<sup>th</sup> Conf. On X-ray Inner-shell Processes, AIP conf. proceedings 389, publ. by AIP, Woodbury, New York (1997), pp. 749-770.
285. *Raman scattering at the L-edge of transition metals*  
J. Jimenez-Mier, D.L. Ederer, U. Diebold, A. Moewes, T.A. Callcott, L. Zhou, J.J. Jia, J.A. Carlisle, E. Hudson, L.J. Terminello, A. Asfaw, F.J. Himpsel, and R.C.C. Perera, *Raman Emission by X-ray scattering*, D.L. Ederer and J.H. McGuire (editors), World Scientific Publishing Co., 71 (1996) pp. 71-80.
286. *Development of a Hard X-ray Microprobe at CAMD*



- N. Moelders, P. Schilling, A. Moewes, Mark C. Petri, Leonard Leibowitz, and Herbert O. Moser, *X-ray Microscopy and Spectromicroscopy*, edited by J. Thieme et al., Springer III-105-110 (1996).
287. *New Optics for the Hard X-ray Microprobe at CAMD*  
A. Moewes, N. Moelders and P. Schilling, *X-ray Microscopy and Spectromicroscopy*, edited by J. Thieme et al., Springer, IV-111-116 (1996).
288. *Soft X-ray stimulated luminescence microscopy and spectroscopy on  $Gd_2O_3 : Pr^{3+}$  and  $(Y,Gd)_2O_3 : Eu^{3+}$  ceramics*  
A. Moewes, C. Kunz and J. Voss, *Nuclear Instr. & Methods A* 373, 299-304 (1996).
289. *Soft X-ray Spectromicroscopy*  
J. Voss, M. Fornefett, C. Kunz, A. Moewes, M. Pretorius, A. Ranck, M. Schroeder and V. Wedemeier, *J. Elec. Spec. Rel. Phen.* 80, 329-335 (1996).
290. *Optical luminescence spectroscopy with the scanning soft X-ray microscope at HASYLAB/DESY*  
H. Zhang, A. Föhlisch, C. Kunz, A. Moewes, M. Pretorius, A. Ranck, H. Sievers, I. Storjohann, V. Wedemeier and J. Voss, *Rev. Sci. Instr.* 66 (6), 3513-3519 (1995).
291. *Scanning Luminescence Microscopy at HASYLAB/DESY*  
A. Moewes, H. Zhang, C. Kunz, M. Pretorius, H. Sievers, I. Storjohann and J. Voss, *X-ray microscopy IV*, V.V. Aristov, A.I. Erko (Editors), Bogorodskii echatnik (Publishing company), Chernogolovka, Russia, 345-354 (1993).
292. *Soft X-ray Microscopy at HASYLAB/DESY*  
J. Voss, I. Storjohann, C. Kunz, A. Moewes, M. Pretorius, A. Ranck, H. Sievers, V. Wedemeier, M. Wochnowski and H. Zhang, *X-ray Microscopy IV*, V.V. Aristov, A.I. Erko (Editors), Bogorodskii echatnik (Publishing company), Chernogolovka, Russia, 103-119 (1993).
293. *Grazing Incidence Optics for Soft X-ray Microscopy*  
J. Voss, C. Kunz, A. Moewes and I. Storjohann, *Rev. Sci. Instrum.* 63 (1), 569-573 (1992).
294. *Microspectroscopy and spectromicroscopy at the Hamburg focusing mirror microscope*  
I. Storjohann, C. Kunz, A. Moewes and J. Voss, *X-ray Optics and Microanalysis 1992*, P.B. Kenway, P.J. Duke, G.W. Lorimer, T. Mulvey, I.W. Drummond, G. Love, A.G. Michette and M. Stedman (Editor), Institute of Physics Conference Series No. 130, Bristol, 587 (1993); UMIST, Manchester, UK, 31st Aug. - 4th Sept. 1992.
295. *A Scanning Soft X-ray Microscope with an Ellipsoidal Focusing Mirror*  
J. Voss, H. Dadras, C. Kunz, A. Moewes, G. Roy, H. Sievers, I. Storjohann, H. Wongel, *Journal of X-ray Science and Technology* 3, 85-108 (1992).
296. *Microprobe Photoemission Spectroscopy with the Hamburg Focusing Mirror Microscope*  
I. Storjohann, C. Kunz, A. Moewes, J. Voss and M. Wulf, *Proceedings of the International Conference, X-ray Microscopy III*, Springer Series in Optical Sciences Vol. 67, 238-240 (1992).
297. *Technical Realization and First Images of the Hamburg Focusing Mirror Scanning Microscope*

A. Moewes, H. Dadras, C. Kunz, G. Roy, H. Sievers, I. Storjohann, J. Voss, H. Wongel, Proceedings of the International Conference, X-ray Microscopy III, Springer Series in Optical Sciences Vol. 67, 231-234 (1992).