

**List of Publications**  
**related to the EDA package**  
**(1991 – 1997)**

1. A. Balerna, E. Bernieri, E. Burattini, A. Lusic, A. Kuzmin, J. Purans and P. Cikmach, EXAFS studies of  $\text{MeO}_{3-x}$  ( $\text{Me} = \text{W}, \text{Mo}, \text{Re}, \text{Ir}$ ) crystalline and amorphous oxides, Nucl. Instrum. and Methods A 308 (1991) 234–239.
2. A. Balerna, E. Bernieri, E. Burattini, A. Lusic, A. Kuzmin, J. Purans and P. Cikmach, XANES studies of  $\text{MeO}_{3-x}$  ( $\text{Me} = \text{W}, \text{Re}, \text{Ir}$ ) crystalline and amorphous oxides, Nucl. Instrum. and Methods A 308 (1991) 240–242.
3. A. I. Sazonov, A. J. Kuzmin, J. J. Purans and S. V. Stefanovskii, Structural state of cobalt ion in sodium–borate and sodium–borosilicate glasses, Zh. Prikl. Spektrosk. 55 (1991) 295–299 [in Russ.]; J. Appl. Spectrosc. (USSR) 55 (1991) 824–827.
4. S. V. Stefanovskii, A. I. Sazonov, A. J. Kuzmin and J. J. Purans, Local environment of cobalt atoms in borosilicate glasses, Fiz. Khim. Stekla 17 (1991) 744–749 [in Russ.]; Sov. J. Glass Phys. and Chem. 17 (1991) 413–418.
5. E. Burattini, G. Dalba, A. Kuzmin, A. Lusic, G. Mariotto and J. Purans, Local environment of  $\text{Co}^{2+}$  ions in  $\beta''$ -alumina crystals, Phys. Stat. Sol. (a) 129 (1992) K61–64.
6. A. Kuzmin, Study of 4d and 5d transition metals oxide compounds by X-ray absorption spectroscopy, Ph.D. Thesis (Institute of Solid State Physics, University of Latvia, Riga, 1992).
7. A. Kuzmin, N. Mironova, J. Purans and A. Sazonov, EXAFS and XANES study of  $\text{Co}_x\text{Mg}_{1-x}\text{O}$  solid solutions using laboratory EXAFS-spectrometer, Phys. Stat. Sol. (a) 135 (1993) 133–141.
8. A. Kuzmin and J. Purans, X-ray absorption spectroscopy study of local structural changes in  $\alpha\text{-WO}_3$  under coloration, J. Phys.: Condensed Matter 5 (1993) 2333–2340.
9. A. Kuzmin, J. Purans, A. Sazonov and N. Mironova, Studies of  $\text{Co}_x\text{Mg}_{1-x}\text{O}$  solid solutions using laboratory EXAFS-spectrometer, in *Proceedings of the 7th International Conference on X-ray Absorption Fine Structure, Kobe, 1992*, Jap. J. Appl. Phys. 32 (1993) Suppl. 32–2 637–639.

10. E. Burattini, J. Purans and A. Kuzmin,  
XAFS Studies of Octahedral Amorphous Oxides,  
in *Proceedings of the 7th International Conference on X-ray Absorption Fine Structure, Kobe, 1992*, Jap. J. Appl. Phys. 32 (1993) Suppl. 32-2 655-657.
11. A. J. Kuzmin, J. J. Purans, A. I. Sazonov and S. V. Stefanovskii,  
X-ray absorption spectra of cesium ions in sodium-borosilicate and aluminium-phosphate glasses,  
Zh. Prikl. Spektrosk. 58 (1993) 538-543 [in Russ.]; J. Appl. Spectrosc. (USSR) 58 (1993) 418-422.
12. J. Purans, A. Kuzmin, Ph. Parent and H. Dexpert, In-situ XAFS study of phase transitions in the  $\text{WO}_3\text{-MoO}_3$  system, in *LURE Users' Meeting, Paris, 1994. Abstracts* (Paris, LURE, 1994).
13. F. Rocca, A. Kuzmin, J. Purans and G. Mariotto,  
EXAFS study of  $\text{Nd}^{3+}$ -exchanged  $\beta''$ -alumina crystal,  
Solid State Ionics 70/71 (1994) 465-470.
14. F. Rocca, A. Kuzmin, J. Purans and G. Mariotto,  
X-ray absorption spectroscopy study of a  $\text{Nd}^{3+}$ -exchanged  $\beta''$ -alumina crystal,  
Phys. Rev. B 50 (1994) 6662-6672.
15. G. Dalba, P. Fornasini, A. Kuzmin, J. Purans and F. Rocca,  
X-ray absorption spectroscopy study of  $\text{ReO}_3$  lattice dynamics,  
J. Phys.: Condensed Matter 7 (1995) 1199-1214.
16. A. Kuzmin,  
EDA: EXAFS data analysis software package,  
Physica B 208&209 (1995) 175-176.
17. J. Purans, A. Kuzmin, Ph. Parent and H. Dexpert,  
XAFS analysis of the low symmetry octahedral molybdenum and tungsten oxides,  
Physica B 208&209 (1995) 307-308.
18. J. Purans, A. Kuzmin, Ph. Parent and H. Dexpert,  
XAFS study of short range order in the heavily disordered  $\text{Mo}_x\text{W}_{1-x}\text{O}_3$  oxides,  
Physica B 208&209 (1995) 373-374.
19. J. Purans, A. Kuzmin, Ph. Parent and H. Dexpert,  
In situ XAFS study of phase transitions and hydrogen intercalation in  $\text{WO}_3\text{-MoO}_3$  system,  
Physica B 208&209 (1995) 707-708.
20. A. Kuzmin, N. Mironova, J. Purans and A. Rodionov,  
X-ray absorption spectroscopy study of  $\text{Ni}_c\text{Mg}_{1-c}\text{O}$  solid solutions on the Ni K edge,  
J. Phys.: Condensed Matter 7 (1995) 9357-9368.

21. N. Mironova, A. Kuzmin, J. Purans and A. Rodionov,  
X-ray absorption spectroscopy studies of the off-centre  $\text{Ni}^{2+}$  ions in  $\text{Ni}_c\text{Mg}_{1-c}\text{O}$  solid solutions,  
in *Proceedings of the SPIE - The International Society for Optical Engineering, St.Petersburg, 1995*, Vol.2706, pp.168–175.
22. F. Rocca, A. Kuzmin, J. Purans and G. Mariotto,  
X-ray absorption spectroscopy of a  $\text{Nd}^{3+}$ -exchanged  $\beta$ -alumina crystal,  
*Phys. Rev. B* 53 (1996) 11447-11450.
23. E. Cazzanelli, G. Mariotto, C. Vinegoni, A. Kuzmin and J. Purans, Changes of structural, optical and vibrational properties of  $\text{WO}_3$  powders after milling and mixing with  $\text{ReO}_3$ ,  
in *Proceedings of the 190th Meeting of the Electrochemical Society on Electrochromic Materials and Their Applications III, San Antonio (Texas), 1996*  
(San Antonio, 1996), Vol.96-24, p.668.
24. A. Kuzmin, J. Purans, G. Dalba, P. Fornasini and F. Rocca,  
A high-temperature x-ray absorption spectroscopy study of  $\text{ReO}_3$ ,  
*J. Phys.: Condensed Matter* 8 (1996) 9083–9102.
25. J. Purans, A. Kuzmin and C. Guéry,  
In-situ x-ray absorption fine structure and x-ray diffraction studies of hydrogen intercalation in tungsten oxides,  
in *Optical Organic and Semiconductor Inorganic Materials*,  
eds. E.A. Silinsh, A. Medvid, A.R. Lusiš, A.O. Ozols,  
*Proc. SPIE* 2968 (1997) pp. 174–179.
26. A. Kuzmin and J. Purans,  
X-ray absorption study of the local environment around tungsten and molybdenum ions in tungsten-phosphate and molybdenum-phosphate glasses,  
in *Optical Organic and Semiconductor Inorganic Materials*,  
eds. E.A. Silinsh, A. Medvid, A.R. Lusiš, A.O. Ozols,  
*Proc. SPIE* 2968 (1997) pp. 180–185.
27. A. Kuzmin, N. Mironova and J. Purans,  
Influence of  $pd$ -mixing and magnetic interactions on the pre-edge peak intensity at the Co (Ni) K absorption edge in  $\text{Co}(\text{Ni})_c\text{Mg}_{1-c}\text{O}$  solid solutions,  
*J. Phys.: Condensed Matter* 9 (1997) 5277–5286.
28. A. Kuzmin, J. Purans, Ph. Parent and H. Dexpert,  
Low and high-temperature in situ x-ray absorption study of the local order in orthorhombic  $\alpha$ - $\text{MoO}_3$  upon hydrogen reduction,  
*J. Physique IV (France)* 7 (1997) C2-891–C2-892.
29. A. Kuzmin and J. Purans,  
X-ray absorption study of the short range order of tungsten and molybdenum ions in

- BaO-P<sub>2</sub>O<sub>5</sub>-WO<sub>3</sub> and CaO-P<sub>2</sub>O<sub>5</sub>-MoO<sub>3</sub> glasses,  
J. Physique IV (France) 7 (1997) C2-971–C2-974.
30. A. Kuzmin, J. Purans, G. Dalba, P. Fornasini and F. Rocca,  
Temperature dependent Re L<sub>3</sub>-edge x-ray absorption study of crystalline rhenium trioxide  
ReO<sub>3</sub>,  
J. Physique IV (France) 7 (1997) C2-1119–C2-1120.
31. A. Kuzmin,  
Reconstruction of the radial distribution function from EXAFS: new trends and comparative analysis of different methods,  
J. Physique IV (France) 7 (1997) C2-213–C2-214.
32. A. Kuzmin, J. Purans and A. Rodionov,  
X-ray absorption spectroscopy study of the Ni K-edge in magnetron sputtered nickel oxide thin films,  
J. Phys.: Condensed Matter 9 (1997) 6979–6993.
33. A. Kuzmin, S. Obst and J. Purans,  
X-ray absorption spectroscopy and molecular dynamics studies of Zn<sup>2+</sup> hydration in aqueous solutions,  
J. Phys.: Condensed Matter 9 (1997) 10065–10078.