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	Publikācijas	***Y.F.Zhukovskii, S.Bellucci, S.Piskunov, L.Trinkler, and B.Berzina, "Atomic and electronic structure of single-walled BN nanotubes containing N vacancies, as well as C and O substitutes of N atoms" 2008, submitted to Eur. Phys. J. B. (in press).***
		Y.F.Zhukovskii, S.Piskunov, N.Pugno, B.Berzina, L.Trinkler, and S.Bellucci, "Ab initio simulations on the atomic and electronic structure of single-walled BN nanotubes and nanoarches," 2008, submitted to J. Phys. Chem. Sol.

S.Piskunov, E.Heifets, T.Jacob, E.A.Kotomin, D.E.Ellis, and E.Spohr, "Electronic structure and thermodynamic stability of $LaMnO_3$ and $La_{1-x}Sr_xMnO_3$ (001) surfaces: Ab initio calculations," Phys. Rev. B, vol. 78, p. 121406(R), 2008.

E.Heifets, S.Piskunov, E.A.Kotomin, Y.F.Zhukovskii, and D.E.Ellis, "Electronic structure and thermodynamic stability of double-layered $SrTiO_3$(001) surfaces: Ab initio simulations," Phys. Rev. B, vol. 75, p. 115417, 2007.

S.Piskunov, E.Spohr, T.Jacob, E.A.Kotomin, and D.E.Ellis, "Electronic and magnetic structure of $La_{0.875}Sr_{0.125}MnO_3$ calculated by means of hybrid density-functional theory," Phys. Rev. B, vol. 76, p. 012410, 2007.

S.Piskunov, Y.F.Zhukovskii, E.A.Kotomin, E.Heifets, and D.E.Ellis, "Adsorption of atomic and molecular oxygen on the $SrTiO_3$(001) surfaces: Predictions by means of hybrid density functional calculations," Mater. Res. Soc. Symp. Proc., vol. 894, p. LL08.05, 2006.

J.Carrasco, F.Illas, N.Lopez, E.A.Kotomin, Y.F.Zhukovskii, R.A.Evarestov, Y.A.Mastrikov, S.Piskunov, and J.Maier, "First-principles calculations of the atomic and electronic structure of F centers in the bulk and on the (001) surface of SrTiO3," Phys. Rev. B, vol. 73, p. 064106, 2006.

S.Piskunov, E.A.Kotomin, E.Heifets, J.Maier, R.I.Eglitis, and G.Borstel, "Hybrid DFT calculations of the atomic and electronic structure for ABO_3 perovskite (001) surfaces," Surf. Sci., vol. 575, pp. 75-88, 2005.

S.Piskunov, E.Heifets, R.I.Eglitis, and G.Borstel, "Bulk properties and electronic structure of $SrTiO_3$, $BaTiO_3$, $PbTiO_3$ perovskites: An ab initio HF/DFT study," Comp.Mat. Sci., vol. 29, pp. 165-178, 2004.

R.A.Evarestov, S.Piskunov, E.A.Kotomin, and G.Borstel, "Single impurities in insulators: Ab initio study of Fe-doped $SrTiO_3$," Phys. Rev. B, vol. 67, p. 064101, 2003.

A.Gunhold, L.Beuermann, K.Gömann, G.Borchardt, V.Kempter, W.Maus-Friedrichs, S.Piskunov, E.A.Kotomin, and S.Dorfman, "Study of the electronic and atomic structure of thermally treated $SrTiO_3$(110) surfaces," Surf. Interface Anal., vol. 35, pp. 998-1003, 2003.

Dalība konferencēs	***S.Piskunov, E.Spohr, and T. Jacob: Electronic structure and thermodynamic stability of cubic $La_xSr_{1-x}MnO_3$ (001) surfaces, First-principles calculations by means of hybrid density-functional theory, 72. Annual Meeting of the DPG and DPG Spring Meeting of the Condensed Matter Division, Oxides and Insulators: Clean Surfaces (Berlin, Germany, 2008), Abstracts: O32.6***
	S.Piskunov, E.A.Kotomin, Yu.F.Zhukovskii, E.Heifets, and D.E.Ellis: Adsorption of atomic and molecular oxygen on the $SrTiO_3$(001) surfaces: Predictions by means of hybrid density functional calculations, MRS Proc. 894 (Fall MRS, Boston, MA, 2005) 2006, pp. LL08-05.
	S.Piskunov, E.A.Kotomin, and E.Heifets: The electronic and atomic structure of $SrTiO_3$, $BaTiO_3$, and $PbTiO_3$ (001) surfaces: Ab initio DFT/HF hybrid calculations, Microelectronic Eng. 81, (Proceedings of the 2nd International Symposium on Nano- and Giga-Challenges in Microelectronics, Cracow, 2004) 2005, pp. 472-477.
	S.Piskunov, R.I.Eglitis, and E.A.Kotomin: Use of hybrid density functional theory for ab initio calculations of defective perovskite crystals, 20^{th} ISSP Conference (Riga, Latvia, February, 2004), Abstracts: p. 48.
	S.Piskunov, R.A.Evarestov, R.I.Eglitis, E.A.Kotomin and G.Borstel: Large-scale first principles calculations of Fe-doped $SrTiO_3$, 3^d International Conference of Advanced Optical Materials and Devices AOMD-3 (Riga, Latvia, August, 2002). Abstracts: p. 31.