Lista de lucrari stiintifice considerate relevante de catre candidat, elaborate in domeniul de doctorat vizat

Dr. Nikolay DJOURELOV, CSII

Subdomeniu: Ştiinţa materialelor cu metode nucleare / Spectroscopie de anihilare a pozitronilor

1. N. Djourelov, T. Suzuki, V. Shantarovich, K. Kondo, Positronium formation in sol–gel-prepared silica-based glasses: temperature and positron-irradiation effect, Radiation Physics and Chemistry 72 (2005) 723–729 https://doi.org/10.1016/j.radphyschem.2004.04.030

2. N. Djourelov, T. Suzuki, Y. Ito, V. Shantarovich, Y. Ito, K. Kondo, J. Onoe, Application of coincidence Doppler broadening spectroscopy to simple hydrocarbons, Chemical Physics 298 (2004) 183–187 https://doi.org/10.1016/j.chemphys.2003.11.021

3. N. Djourelov, G. Gutierrez, H. Marinov, E. Popov, N. Toulhoat, N. Moncoffre, Y. Pipon, P. Nédélec , Xe-implanted zirconium oxycarbide studied by variable energy positron beam , Nuclear Instruments and Methods in Physics Research B 269 (2011) 2709–2714 https://doi.org/10.1016/j.nimb.2011.08.022

4. N. Djourelov, T. Suzuki, R.S. Yu, V. Shantarovich, K. Kondo, Application of coincidence Doppler broadening spectroscopy to polypropylene and polyethylene: taking into account the positronium formation, Chemical Physics 302 (2004) 179–184 https://doi.org/10.1016/j.chemphys.2004.04.007

5. N. Djourelov, T. Suzuki, M. Misheva, F.M.A. Margac, I.M. Miranda Salvado, Positron annihilation lifetime study of organic-inorganic hybrid materials prepared by irradiation, Journal of Non-Crystalline Solids 351 (2005) 340–345 https://doi.org/10.1016/j.jnoncrysol.2004.11.015

6. N. Djourelov, Z. Ates, O. Guven, M. Misheva, T. Suzuki, Positron annihilation lifetime spectroscopy of molecularly imprinted hydroxyethyl methacrylate based polymers, Polymer 48 (2007) 2692-2699 https://doi.org/10.1016/j.polymer.2007.03.006

7. N. Djourelov, B. Marchand, H. Marinov, N. Moncoffre, Y. Pipon, N. Bérerd, P. Nédélec, L. Raimbault, T. Epicier, Study of temperature and radiation induced microstructural changes in Xe-implanted UO2 by TEM, STEM, SIMS and positron spectroscopy, Journal of Nuclear Materials 443 (2013) 562–569 https://doi.org/10.1016/j.jnucmat.2013.07.066

8. N. Djourelov, B. Marchand, H. Marinov, N. Moncoffre, Y. Pipon, P. Nédélec, N. Toulhoat, D. Sillou, Variable energy positron beam study of Xe-implanted uranium oxide, Journal of Nuclear Materials 432 (2013) 287–293 https://doi.org/10.1016/j.jnucmat.2012.07.035

9. N. Djourelov, D. Dinescu, V. Leca, An overview of the design of ELIPS—A new slow positron beam line, Nuclear Instruments and Methods in Physics Research A 934 (2019) 19–25
https://doi.org/10.1016/j.nima.2019.04.032

10. N. Djourelov, A. Oprisa, V. Leca, Source of slow polarized positrons using the brilliant gamma beam at ELI-NP. Converter design and simulations, Nuclear Instruments and Methods in Physics Research A 806 (2016) 146–153
https://doi.org/10.1016/j.nima.2015.10.009