NpF_4

NpF_4

1989

111: 121254e **The 4f binding-energy shifts of the light-actinide dioxides and tetrafluorides.** Cox, L. E.; Farr, J. D. (Mater. Sci. Technol. Div., Los Alamos Natl. Lab., Los Alamos, NM 87545 USA). *Phys. Rev. B: Condens. Matter* 1989, 39(15), 11142–5 (Eng). The 4f binding energies of NpF_4 and PuF_4 were measured, and are discussed in terms of those of the oxides and fluorides of the light actinides. Although the electronegativities of these elements are nearly const., the chem. shifts for each series show a regular increase relative to the metals. From results of previously reported band-structure and mol.-orbital calcns., the shifts are shown to result from increasing differences in 5f occupation and, to a lesser extent, increase in the 5f–core-level Coulombic interaction. Recently reported L_3 x-ray-absorption and renormalized-atom calcns. are used to assess the importance of final-state screening energies in both the metals and the insulating compds.

4f - энергия связи

(+) PuF_4

C.A. 1989, 111, N 14

NpF_4 1991

Carnall W.T., Liu G.K. et al.

м.п. J. Chem. Phys. 1991. 95, N10. C. 7194-7203.

(см. UF_4; III)