Orbital moments in uranium compounds—ab-initio calculations

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The electronic structure and magnetic properties of the tetragonal $U_2T_2In_2$ ($T=\text{Ni},\text{Rh},\text{Pt}$) compounds were studied recently [1]. In this work we present the electronic structure and the magnetic moments (spin and orbital) of $U_2\text{Rh}_2\text{In}$ and $U_2\text{Pt}_2\text{In}$ compounds. The electronic structure and magnetic properties were calculated by the fully relativistic full potential local orbital minimum basic band structure scheme (FPLO-5 code) [2]. We used the Perdew-Wang [3] parametrization of the exchange-correlation potential.


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