ELECTRONIC STRUCTURE OF CUBIC $DyCu_5$

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9.7 cm

Binary RCu_5 (R=heavy rare earth) compounds can crystallize in two different allotropic structures: (i) low-temperature cubic and (ii) high-temperature hexagonal forms.
We report on the electronic properties of Dy-Cu compound in cubic $AuBe_5$-type structure. The single phase sample was produced in Ar atmosphere using conventional one wheel melt-spinning equipment as long ribbon.
The valence band spectra of the compound were investigated by X-ray photoelectron spectroscopy (XPS) and ultraviolet photoelectron spectroscopy (UPS). Results of ab initio calculation of the electronic structure using the tight-binding linear muffin-tin orbital (TB LMTO) method are compared with experimental data.
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13.4 cm

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