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## Equilibrium and electronic properties of cubic copper sulphide

*Thursday, 11 July 2019 15:00 (2 hours)*

The equilibrium and electronic properties of the cubic copper sulphide are investigated using the full-potential all electrons first principle density functional theory. Convincing equilibrium and electronic properties are obtained using the GGA-PBEsol type exchange-correlation functional. Equilibrium properties suggest the mechanical stability with elastic anisotropy. The electronic band structure and the density of states suggest the material to be semi-metallic with no energy gap.

**Apply to be considered for a student award (Yes / No)?**

no

**Level for award (Hons, MSc, PhD, N/A)?**

n/a

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