JOURNAL OF SOLID STATE CHEMISTRY 12, 406 (1975)

Semiconductor–Metal Transition in Novel $Cd_2Os_2O_7$*

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Received July 3, 1974

$Cd_2Os_2O_7$ has been prepared for the first time and has the pyrochlore structure with a cubic cell edge of 10.17 Å at room temperature. Electrical, magnetic, and D.S.C. measurements on single crystals of this compound show a sharp transition at 225 K which we interpret to be an electronic, second-order, metal–semiconductor transition. The low-temperature semiconducting phase is probably antiferromagnetic.

* For details see A. W. Sleight, J. L. Gillson, J. F. Weiher, and W. Bindloss, *Solid State Commun* **14**, 357 (1974).