

**Mössbauer Study of Antiferromagnetic  $\text{CuFeS}_2$  (\*) (\*\*).**

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**Summary.** — Mössbauer spectra of a synthesized  $\text{CuFeS}_2$  sample were taken at various temperatures ranging from liquid-nitrogen temperature to 820 °K. Clear six-line magnetic hyperfine patterns were observed even above 700 °K, which was the reported upper limit for the existence of six-line pattern for natural chalcopyrites. No appreciable central peak was observed above 600 °K. Isomer shift indicates the ferric character of the Fe ion. No appreciable quadrupole splittings were observed. This is consistent with the almost perfect tetrahedral co-ordination of Fe ions. The Néel temperature was determined to be  $(815 \pm 3)$  °K.