

Photoacoustic Detection of the Magnetic Phase Transition in Sulfospinel FeCr_2S_4

Yong Hwan BAK, Jang Hee CHU, Byung Kwon KANG, Jae Hwan KWAG and Ung KIM

Department of Physics, Yonsei University, Seoul 120-749

Jin Soo HWANG and Joong Gill CHOI

Department of Chemistry, Yonsei University, Seoul 120-749

Chul Shung KIM

Department of Physics, Kookmin University, Seoul 136-702

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The magnetic transition of the sulfospinel FeCr_2S_4 has been investigated in the range of temperatures between 84 K and 300 K by the photoacoustic technique. The anomalous variation of the specific heat of the samples expected at the transition temperature was observed from the change of the photoacoustic signal. The transition temperatures were determined to be 172 K and 195 K where the lower transition was confirmed to show a good agreement with the results from the Mössbauer study.