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Magnetic transition in the 1D spin-chain system $\text{SrCo}_2\text{V}_2\text{O}_8$ ¹

BEN-LI YOUNG, Department of Electrophysics, National Chiao Tung University, Taiwan, C.S. LUE, Department of Physics, National Cheng Kung University, Taiwan, ZHANGZHEN HE, Institute for Solid State Physics, University of Tokyo, Japan — We report the ⁵¹V NMR study on the quasi-one-dimensional spin system $\text{SrCo}_2\text{V}_2\text{O}_8$. Incommensurate antiferromagnetic transition in this material is revealed from the splitting of the spectrum peak from the paramagnetic phase. When applying magnetic fields, spin reorientation is observed before entering the paramagnetic phase for fields both parallel and perpendicular to the *c* axis. Similar spin reorientation is also observed if by varying the temperature across the Neel temperature. We have obtained the ⁵¹V NMR spectra for three different field angles (0°, 45°, 90°) between the *c* axis. A detailed analysis of this antiferromagnetic structure will be discussed.

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