

## **Spin dynamics in the one-dimensional $S = 1/2$ Heisenberg antiferromagnet $\text{CuGeO}_3$**

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### **Abstract**

The temperature dependences of  $1/T_1$  and  $1/T_2G$  in the uniform state of the spin-Peierls compound  $\text{CuGeO}_3$  are investigated using the Green's function method. This study is conducted within the framework of the  $S = 1/2$  one-dimensional Heisenberg model with a next-nearest-neighbor competing interaction. The results reproduce the main features of the observed experimental behavior.

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