

## **Abstract**

**Copper nitrate is thought to be a close to ideal realisation of a bond alternating spin-1/2 Heisenberg chain. Motivated by recent experiments on this material, we develop an expansion for the finite temperature dynamical structure factor in the limit of strong alternation of the exchange constants. We determine both the broadening of the low lying triplet lines and the contribution of the thermally activated intraband scattering.**