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## **【671】 Low frequency resonance mode in the insulating chiral magnet $\text{Cu}_2\text{OSeO}_3$ at low temperature**

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The chiral-lattice ferrimagnet  $\text{Cu}_2\text{OSeO}_3$  has been evidenced to exhibit a second skyrmion phase stabilized by cubic anisotropy well below 57K. It is particularly interesting when aiming at an experimental investigation of magnon band structures in skyrmion lattices and their potential application for microwave devices operating at GHz frequencies. We explored spin excitations in a  $\text{Cu}_2\text{OSeO}_3$  single crystal by broadband GHz spectroscopy by high field cooling down. Beyond modes attributed to the conventional low-temperature helical, conical and ferrimagnetic phases, we observe a further weak resonance at a relatively low frequency of about 1.5 GHz which might hint towards excitation of the second skyrmion phase. The work is supported by SNSF via grant 171003 (sinergia project Nanoskyrmionics).

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