Neutron Time of Flight phonon spectra of Cu$_2$O and Ag$_2$O powders

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— Negative thermal expansion materials cuprite (Cu$_2$O) and Ag$_2$O share the same structure (space group $Pn\bar{3}m$). Here, we report inelastic neutron time of flight measurements of room temperature powder samples of each system, using the Pharos chopper spectrometer at LANSCE, at up to 100 meV energy transfer. For Cu$_2$O, high energy optical phonons are observed between 60 and 80 meV, while for Ag$_2$O, these phonons are observed between 50 and 70 meV. Results are compared to previous work, and to recent neutron triple axis spectrometer results for Cu$_2$O, and their relevance to negative thermal expansion is discussed.

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