Abstract Submitted
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Investigating the Charge Ordering Pattern in the Organic Spin Ladder (DT-TTF)$_2$Cu(mnt)$_2$[1] S. BROWN, J. T. HARALDSEN, J. CAO, J. L. MUSFELDT, University of Tennessee, Knoxville, M. MAS-TORRENT, C. ROVIRA, Institut de Ciència de Materials de Barcelona, Spain, J. C. DIAS, R. T. HENRIQUES, M. ALMEIDA, Instituto Tecnológico e Nuclear, Portugal — Quantum spin ladders have attracted considerable interest as intermediaries between one-dimensional chains and two- dimensional square lattices. In order to elucidate the charge ordering pattern in a model organic spin ladder, we measured the temperature-dependent infrared spectra of the organic spin- ladder candidate (DT-TTF)$_2$Cu(mnt)$_2$. We interpret the results within the context of recent theoretical predictions of various charge ordering patterns in spin ladders [1]. Comparision with spectra of the isostructural Au analogue and neutral DT-TTF compound aid in this analysis. [1] R. T. Clay, S. Mazumdar, Phys. Rev. Lett. **94**, 207206 (2005)

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