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## Charge density wave formation near band degeneracies

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We present Raman scattering experiments on rare-earth tri-telluride single crystals to study low dimensional interacting electron gases and the transition into a charge density wave (CDW) phase. In the case of ErTe3 there are two CDW phase transitions at 265K and 155K with orthogonal ordering vectors. We analyze the data and the Raman selection rules and find a strong enhancement of the light scattering intensity near band degeneracies. For symmetry reasons the electron-phonon coupling is also enhanced at these points. This is an additional contribution to the phonon renormalization and therefore influences CDW formation in multiband systems.

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