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Exploring layered GaSe crystals with 2DFT spectroscopy P. DEY, J. PAUL, D. KARAISKAJ, University of South Florida, Z. KOVALYUK, Z. KUDRYNSKYI, National Academy of Sciences of Ukraine — The dephasing and lifetime of excitons and biexcitonic effects in GaSe layered crystals have been carefully measured using three pulse four-wave mixing and two-dimensional Fourier transform (2DFT) spectroscopy. Strong biexciton signatures are observed in the 2DFT spectra. Excitation density and temperature dependence 2DFT spectra provide new insights into the many-body interactions in this material.

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