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**Localization - Delocalization Transition of Indirect Excitons in Lateral Electrostatic Lattices** M. REMEIKA, J. GRAVES, A.T. HAMMACK, L.V. BUTOV, Department of Physics, University of California at San Diego, M. HANSON, A.C. GOSSARD, Materials Department, University of California at Santa Barbara — We report on a study of transport of indirect excitons in GaAs/AlGaAs coupled quantum wells in linear lateral lattices created by laterally modulated gate voltage. The localization-delocalization transition for the excitons was observed with increasing density in the directions along and across the lattice. At high lattice amplitudes, the density corresponding to the transition across the lattice was found to linearly depend on the lattice amplitude. Screening of the potential by repulsive exciton-exciton interaction was demonstrated.

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