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Luminescence excitation of InAs/GaAs coupled quantum dots
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SCHEIBNER, ALLAN S. BRACKER, DAN GAMMON, Naval Research Labora-
tory, Washington, DC 20375 — An understanding of the excited states in coupled
quantum dots is a necessary step in the road towards a coherent control of this
system. Photoluminescence excitation studies were performed on an InAs/GaAs
coupled quantum dot system embedded in a Schottky diode structure. The ground
states of the positive trion, negative trion and neutral exciton are first clearly iden-
tified by their photoluminescence spectra in bias maps. Preliminary results are
reported on the luminescence excitation spectra of these charge configurations; both
near and far away from the region where molecule-like behavior is observed.

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