

Abstract Submitted  
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**Quantum optics in impurity bound excitons** RENUKA RAJAPAKSE, TUN WANG, SUSANNE YELIN, University of Connecticut — Group theoretical techniques are used to deduce the selection rules and energy splitting of electric dipole lines of a donor or acceptor exciton in a group-IV semiconductor. We propose to realize electromagnetically induced transparency and slow light by identifying a suitable lambda system. Parameters for achieving EIT and light storage are estimated.

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