

Abstract Submitted
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Effects of disorder on the optical properties of Frenkel excitons ABDELKRIM BOUKAHIL, ROBERT SIEMANN, University of Wisconsin-Whitewater — The Coherent Potential Approximation (CPA) is used to study the effects of disorder on the absorption line shapes of Frenkel excitons in one-, two-, and three-dimensional systems. A Gaussian distribution of transition frequencies with rms width σ was used. Several values of the disorder parameter σ . The CPA results show that short tails on the high-energy side of the peaks are σ dependent, and long tails on the low-energy side of the peaks are independent of the disorder parameter σ .

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