

Abstract Submitted  
for the MAR12 Meeting of  
The American Physical Society

**Phonon** **Mediated**  
**Optical Stark Effect for Organic-Semiconductor Heterostructures**<sup>1</sup> QUE

HUONG NGUYEN, Marshall University — The system of macroscopic equations of hybrid excitons, photons and phonon is investigated in order to model the optical Stark effect for the hybrid systems with combination of semiconductor and organic materials. The unique properties of the hybrid system will allow tuning the system to get the most preferable outcomes. One of the key points is to study the interaction of different components of the system with each other to get the condition to facilitate the observation of phonoriton and the phonon-mediated Stark effect.

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