**Nanowire Quantum-Dot Solar Cells**

*Pls: Eray S. Aydil & David J. Norris*

*Students: Kurtis S. Leschkies, Alan G. Jacobs*

*University of Minnesota, Department of Chemical Engineering & Materials Science*

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**DESCRIPTION OF WORK**
- Efficiency of solar cells based on PbSe quantum dots (QDs) and ZnO films is increased by replacing the ZnO films with a vertically oriented array of single-crystalline ZnO nanowires, and infiltrating this array with QDs.

**MAJOR ACHIVEMENTS & OBSERVATIONS**
- Demonstrated a new type of solar cell based on PbSe QDs and ZnO nanowires.
- With 100 mW/cm² illumination these solar cells exhibit efficiencies of up to 2%.
- Demonstrated that nanowires improve exciton collection efficiency in QD solar cells.

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**Publications**
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