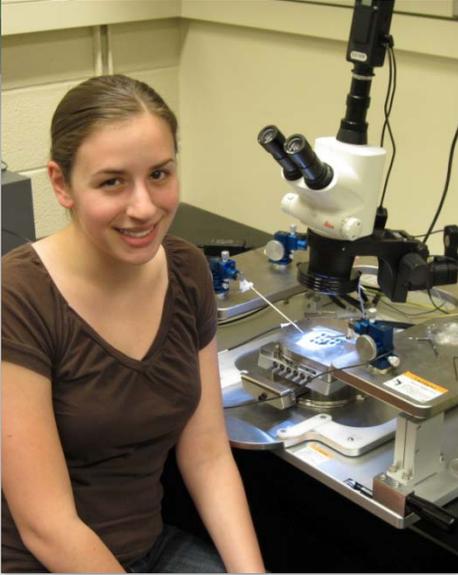


# Stephanie Tomasulo



**Graduate Institution:** Yale University

**Location:** New Haven, CT

**Graduate Discipline:** Electrical Engineering

**Hometown:** Middletown, NY

## Research Interests:

*Solid state lighting and the “green gap”  
III-V wide-bandgap solar cells  
Renewable energy in general*

## About me:

*I am currently researching  $\text{In}_x\text{Ga}_{1-x}\text{P}$  as a material for potential wide-bandgap (2.0-2.2 eV) solar cells to be used in multi-junction solar cells. Multi-junction solar cells currently hold the record for efficiency (41.6% - Spectrolab) and are expected to increase even further with the development of a wide-bandgap material to act as the top junction. I am involved in each step of the process from growing (via molecular beam epitaxy) and characterizing the material to fabricating and testing the final solar cells.*

*I attended Rensselaer Polytechnic Institute for my bachelor's (in physics) and master's (in electrical engineering) degrees where I researched  $\text{In}_x\text{Ga}_{1-x}\text{N}$  for green light emitting diodes and laser diodes. I also dove on the varsity swimming and diving team throughout my undergraduate career. During my master's work, I was funded by the NSF to enrich a local high school physics class by interacting with the students multiple times a week and bringing more advanced laboratory exercises to their every day course work.*

*After graduate school, I hope to be a researcher in either industry or government, ideally continuing work on renewable energy solutions.*



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