

Jeong Ho You

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EDUCATION

- UNIVERSITY OF ILLINOIS** Urbana, IL
Ph.D., Department of Mechanical Science & Engineering, Oct. 2007
Thesis: *Effect of nanoscale defects on electrical and optical properties in III-V semiconductors*
- UNIVERSITY OF TEXAS** Austin, TX
M.S., Department of Mechanical Engineering, Aug. 2002
Thesis: *Sound diffraction by jagged edge noise barriers*
- CHUNGANG UNIVERSITY** Seoul, Korea
B.Eng., Mechanical Design & Production Engineering, Feb. 1999

RESEARCH AREAS

- Photovoltaics: nanocrystal and quantum dot solar cells
- Piezoelectric/ferroelectric energy conversion systems
- Solid mechanics & quantum mechanics coupling systems
- Atomic scale simulations and Atomic-based continuum modeling
- Defect analysis in nanoelectronic and optoelectronic systems
- Fluid-Structure Interactions for composite materials
- Acoustics: Diffracted sound field by noise barriers

APPOINTMENTS

- Aug. 2009 ~ Present **ASSISTANT PROFESSOR, MECHANICAL ENGINEERING, SOUTHERN METHODIST UNIVERSITY** Dallas, TX
- Sep. 2007 ~ Aug. 2009 **POSTDOCTORAL SCHOLAR, MECHANICAL ENGINEERING, CALIFORNIA INSTITUTE OF TECHNOLOGY** Pasadena, CA
Supervised by Prof. Kaushik Bhattacharya
- Effective energy representation in ferroelectric phase transitions
 - Fluid-Solid Interactions in carbon fiber enhanced composite materials
- Sep. 2002 ~ July 2007 **GRADUATE RESEARCH ASSISTANT, MECHANICAL ENGINEERING, UNIVERSITY OF ILLINOIS** Urbana, IL
Supervised by Prof. Harley Johnson
- Electron scattering due to dislocations in electronic materials
 - Effects of dislocations on optical properties in electronic materials
 - Optical properties of quantum dots
- Sep. 2000 ~ July 2002 **GRADUATE RESEARCH ASSISTANT, MECHANICAL ENGINEERING, UNIVERSITY OF TEXAS** Austin, TX
Supervised by Prof. David Blackstock
- Noise reduction by jagged edge noise barriers

SELECTED PUBLICATIONS

- Jeong Ho You and H. T. Johnson, "Effect of dislocations on electrical and optical properties in GaAs and GaN," *Solid State Physics* **61**, 143 (2009). [**invited, review article**]
- Jeong Ho You and H. T. Johnson, "Effects of threading edge dislocations on the photoluminescence spectrum in n-type Wurtzite GaN," *Phys. Rev. B*, **76**, 115336 (2007).
- Jeong Ho You and H. T. Johnson, "Effect of screw dislocation density on optical properties in n-type wurtzite GaN," *J. Appl. Phys.* **101**, 023516 (2007).
- Jeong Ho You, Jun-Qiang Lu, and H. T. Johnson, "Electron scattering due to threading edge dislocations in n-type wurtzite GaN," *J. Appl. Phys.* **99**, 033706 (2006).
- Penelope Menounou and Jeong Ho You, "Design of a jagged-edge barrier: numerical and experimental study," *Noise Control Engineering Journal* **52**(5), 210-224 (2005): **awarded, INCE outstanding paper.**