

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 Supervised by Prof. Kaushik Bhattacharya • Effective energy representation in ferroelectric phase transitions • Fluid-Solid Interactions in carbon fiber enhanced composite materials	Pasadena, CA
Sep. 2002 ~ July 2007	GRADUATE RESEARCH ASSISTANT, MECHANICAL ENGINEERING, UNIVERSITY OF ILLINOIS 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	Urbana, IL
Sep. 2000 ~ July 2002	GRADUATE RESEARCH ASSISTANT, MECHANICAL ENGINEERING, UNIVERSITY OF TEXAS Supervised by Prof. David Blackstock • Noise reduction by jagged edge noise barriers	Austin, TX

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.**