

## CURRICULUM VITAE (2012)

# Michael Klopfer

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### EDUCATION

2009 – Present	<b>University of California – Irvine</b> PhD student – Biomedical Engineering	<b>(GPA 3.86)</b>	Irvine, CA
2004 – 2008	<b>University of California – Irvine</b> BS – Biomedical Engineering (specialization in biophotonics)	<b>(GPA 3.4)</b>	Irvine, CA

### RESEARCH AND TEACHING EXPERIENCE

2008– Present	<b>Graduate Student Researcher</b> University of California – Irvine
2005– 2008	<b>Undergraduate Research Assistant</b> University of California – Irvine
Fall 2010	<b>Teaching Assistant: BME 135 with Dr. Michael Berns</b> (lasers in medicine / introduction to laser physics)
Winter/Spring 2012	<b>Teaching Assistant: BME 180B/C with Dr. Michelle Khine</b> (biomedical engineering senior design project)

### PEER REVIEWED PUBLICATIONS

1. Y. Alivov, M. Klopfer, S.Y. Molloy. "TiO<sub>2</sub> nanotubes as a cold cathode for x-ray generation," *Applied Physics Letters*, vol.96, no.24, pp.243502-243502-3, Jun 2010.
2. Y. Alivov, M. Klopfer, S.Y. Molloy. "Effect of TiO<sub>2</sub> nanotube parameters on field emission," *Nanotechnology*. Dec 2010.
3. J. Ducote, M. Klopfer, S.Y. Molloy. "Volumetric lean percentage measurement using dual energy mamography," *Medical Physics*. June 2011.
4. M. Klopfer, T. Wolowiec, V. Satchouk, Y. Alivov, S.Y. Molloy. "Characterization and optimization of pyroelectric X-ray sources using Monte Carlo spectral models," *Nuclear Inst. And Methods in Physics Research*, A (In Press - 2012).

### POSTER PRESENTATIONS

1. M. Klopfer, E. Richard, G.E Miller, "Electrostatic and Air Filtration Collection of Radon and Radon Daughters" Annual Meeting. Biomedical Engineering Society. Los Angeles. (2007).
2. M. Klopfer, E. Richard, J.C. Icuss, P. Condorelli, "Radon Remediation through electrostatic methods" UCI UROP Poster Presentation (2008).

3. M. Klopfer, S.Y. Molloy, "Investigations with a Photon counting CZT Detector" UCI UROP Poster Presentation (2008).

4. M. Klopfer, J. Ducote, S.Y. Molloy, "Feasibility of Using Chemical Analysis to Validate Breast Density Measurement From Dual Energy Mammography" Annual Meeting. American Association of Physicists in Medicine. Vancouver. (2011).

#### PATENTS

1. Molloy S., Klopfer, M. A Method and Apparatus for Dynamic Brachytherapy with Miniature Pyroelectric Sources. Regents of the University of California, assignee. Patent #61484152 (Provisional). 9 May 2011. Print.

#### CONFERENCE PROCEEDINGS & PROFERRED TALKS

1. M. Klopfer, Y. Alivov, S. Molloy. "A Cold Cathode X-Ray Source Based On TiO<sub>2</sub> Nanotube Field Emission ." Annual Meeting. Medical Physics. Philadelphia. 07 21 2010.

2. M. Klopfer V. Satchouk, F. Yu, S. Molloy. "Brachytherapy Using Pyroelectric Based X-ray Sources." Annual Meeting. Medical Physics. Vancouver. 08 03 2011.

#### TELEVISION APPEARANCES:

1. *Top Chef Masters*: Season 3: Episode 8: "Blinded me with Science" On-screen personal scientific consultant for Maillard reaction challenge for contestant Floyd Cardoz, the eventual season champion. (2011).

2. *The Sonny Bozeman Show*: Long Beach community access local events show. "The Computer Guy" segment. multiple appearances. (2004-2007).

#### FELLOWSHIPS, AWARDS & GRANTS:

2011	American Association of Physicists in Medicine: Noam Baily Graduate Research Award
2009 – 2010	Whitaker/UCI Graduate Student Fellowship
2010	UCI Biomedical Engineering Department Collaboration Award - First Prize
2008	UROP Undergraduate Research Fellowship: Electrostatic Radon Remediation
2007	UROP Undergraduate Research Fellowship: CZT Detector Characterization
2007	UROP SURP Summer Fellowship: Understanding of Reversed Speech in Tonal Languages
2006	UROP Undergraduate Research Fellowship: Electrostatic Radon Collection

#### NON-ACADEMIC ACTIVITIES AND ACHIEVMENTS:

1. Activity coordinator and workshop leader for Iridescent Learning, Los Angeles. Designed and taught workshops for inner-city children on math, science, and technology. I am currently in the process of setting up an Irvine Chapter for Iridescent Learning (Feb 2011-present).

2. Founding Father of UCI Triangle Engineering Fraternity (10/2007)

3. UCI Biomedical Engineering Society student chapter vice president. (2007-2008)

4. Boy Scouts of America -Eagle Scout. (Awarded 3/01)
5. Licensed amateur radio operator. (Call: KF6HKU). (11/96)

**ACADEMIC AND NON ACADEMIC WORK EXPERIENCE:**

1. IT Consultation – Sole proprietor of LaPlaya Consulting™ - General IT and network consulting along with technical and academic training and tutoring for business and individuals. (6/00-present)
2. Subcontractor (Operating as LaPlaya Consulting™) for Welford and Ball, Inc. Personalized tutoring service for students. Grades 6 through college level teaching math and science. (10/11-present)
3. Internal IT Technician for American Communications Group, Inc. in Torrance, Ca: responsibilities include management of IT projects and consultation on major technology decisions. (6/05-present).
4. Researcher in the radiographic technique lab of Dr. Sabee Molloi. Past responsibilities included: modification of x-ray generator for dual energy studies and design, creation of radiographic phantoms, and quantization of energy discriminating CZT detectors. Current responsibilities involve researching pyroelectric sources for biomedical applications (4/06-present).
5. Intern machinist, CNC/CAM repair technician, and computer network consultant for Advanced Foam, Inc. (6/04-9/04, 6/05-9/05).
6. Founding Intern for Palos Verdes on the Net/City of Rancho Palos Verdes community television studio. Managed personnel and setup of studio equipment. (5/2003-12/2003).
7. Epson America, Inc. Intern in R&D Lab. Responsible for quality control of in-store demo printer actuators. (7/2002-8/2002).