

CURRICULUM VITAE

Chung-Jen Chung

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1. Personal Information

Birth: Tainan City, Taiwan, 1979.

2. Educations:

- 2008.12 Electrical Engineering, National Sun Yat-Sen University, Ph.D.
- 2003.7 Electrical Engineering, National Sun Yat-Sen University, M.S.
- 2001.7 Electrical Engineering, National Sun Yat-Sen University, B.S.

3. Professional Experiences:

- 2017.2 ~ 2017.4 Bridots material, NCKU-SVAA Silicon Valley incubation program, co-founder
- 2016.9 ~2016.9 MIT - Massachusetts Institute of Technology, Visiting scholar
- 2014.7 ~ Department of Engineering Science, NCKU, Adjunct Assistant Professor
- 2013.2~ Center for Micro/Nano Science and Technology, NCKU, Nanolithography leader
- 2011.6~ Center for Micro/Nano Science and Technology, NCKU, Assistant Research Fellow
- 2009.2~2011.6 Center for Micro/Nano Science and Technology, NCKU, Postdoctoral researcher
- 2007.1~2008.6 Electronics Design Center, Case Western Reserve University, USA, Exchange Scholar

4. Fields of Specialty:

- Electron beam lithography
- Plasma etching, including RIE, F-based ICP, and Cl-based ICP
- Thin film fabrication & photolithography
- Focused ion beam fabrication
- Design and construction of cleanrooms

5. Major awards and honors

- 2016 Winner of Silicon Valley selection (one team per year), leader of a startup team, Bridots
- Executive chair of 2015 E-beam technology workshop with TSMC and HMI
- Invited speaker at 2015 ISNST, Topic: High Accuracy Electron-Beam Lithography
- Top 20 Awards, Innovation & Startups Program (FITI) in 2014
- Golden award, 2013 Creative competition in nanotechnology
- Publication Chair, IEEE-NANOMED (IEEE International Conference on Nano/Molecular Medicine and Engineering) in 2009
- Committee of the international workshop on applications of graphene-based materials in 2013.
- Best thesis awards from The Materials Research Society-Taiwan(MRS-T) in 2008

6. Research and Development

- Focus on the development of lithography technology and its applications for device fabrications
- My champion fabrications are 10 nm patterning and ultra-high aspect ratio (AR>80) etching
- Well-controlled overlay and stitching of EBL. In Taiwan academic area, I set the best records of it (within 10 nm)
- Well-established fabrication Integration, including mix&match lithography, ion-beam fabrication, laser milling and back-end processes
- These fabrication technologies are applied to the fabrication of photonic crystals, graphene devices, and 3D-IC through silicon via.

7. List of Recent Selected Publications (* corresponding author)

- P. Hsieh, **C. Chung**, J. F. McMillan, M. Tsai, M. Lu, N. C. Panoiu, and C. W. Wong, "Photon transport enhanced by transverse Anderson localization in disordered superlattices," *Nature Physics*, vol. 11, pp. 268–274, 2015.
- **C.J. Chung***, Y.M. Yang, H.Y. Shen, T.H. Tung, K.I. Lin, C.H. Huang (2014, Sep). Defects Engineer of Graphene Processed by Electron Beam Irradiation. *The 6th International Conference on Recent Progress in Graphene Research (RPGR)*.
- T.C. Li, **C.J. Chung**, C.F. Han, and J.F. Lin, "Effects of Prestrain Applied to Poly(Ethylene Terephthalate) Substrate on TiO₂ Particle Size, Porosity Geometry and Optical Properties of TiO₂/PET Specimens," *Ceramics International*, 40 (2014), pp.591–603.
- T.C. Li, K.T. Chen, **C.J. Chung**, Y.F. Song, C.C. Wang, and J.F. Lin, "Effects of Pre-strain Applied to a Poly(Ethylene Terephthalate) Substrate before TiO₂ Film Deposition on the Contact Angle of the Substrate and the Morphology of the Specimen," *Mechanics of Materials*, vol. 58, pp. 23-34, March 2012.
- C. F. Han, B. H. Wu, **C.J. Chung**, S. F. Chuang, W. L. Li, J. F. Lin, "Stress–strain analysis for evaluating the effect of the orientation of dentin tubules on their mechanical properties and deformation behavior," *Journal of the Mechanical Behavior of Biomedical Materials*, vol. 12, pp. 1–8, 2012.
- C. Y. Chen, **C.J. Chung**, B. H. Wu, W. L. Li, C. W. Chien, P. H. Wu, and C. W. Cheng, "Microstructure and lubricating property of ultra-fast laser pulse textured silicon carbide seals," *Applied Physics A.*, vol 107, pp. 345-350, 2012.
- P. Hsieh, **C.J. Chung**, S. Kocaman, C. Biris , M. Lu, N. C. Panoiu, and C. W. Wong, "Near-field observations of self-collimation in photonic crystal superlattices," *Quantum Electronics and Laser Science Conference*, May 6, 2012.
- C. L. Wei, Y.C. Chen, S. R. Li, C.C. Cheng, K.S. Kao, and **C.J. Chung***, "Effects of reflecting layers on resonance characteristics of a solidly mounted resonator with $\frac{1}{4} \lambda$ Mode Configuration," *Applied Physics A.*, vol. 99, pp.271-278, 2010.