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SCI Papers

1. **Chin-Lung Kuo** and Gyeong S. Hwang, "Structure and dynamics of silicon-oxygen pairs and their role in silicon self-diffusion in amorphous silica", *Journal of Applied Physics*, 104, p0549061-0549064 (2008)
2. **Chin-Lung Kuo** and Gyeong S. Hwang, "On the Origin of Nitrogen-induced Retardation of Boron Diffusion in Amorphous Silica", *Applied Physics Letter*, Vol. 92, p0921111-0921113 (2008)
3. **Chin-Lung Kuo** and Gyeong S. Hwang, "Strain-induced Formation of Surface Defects in Amorphous Silica: A Theoretical Prediction", *Physical Review Letter*, Vol. 100, p0761041-0761044 (2008)
4. **Chin-Lung Kuo** and Gyeong S. Hwang, "Structure and diffusion of boron in amorphous silica: Role of oxygen vacancy related defects", *Physical Review B*, Vol. 79, p165201 (2009).
5. Jsung-Ju Chen and **Chin-Lung Kuo**, "First Principles Study of the Structural, Electronic, and Dielectric Properties of Amorphous HfO₂", *Journal of Applied Physics*, 2011
6. Jsung-Ju Chen and **Chin-Lung Kuo**, "Hybrid Density Functional Study for the Structural, Electronic, and Dielectric Properties of Hafnium Silicates", Submitted to *Journal of Applied Physics*, 2011.

International Conference Papers

1. **Chin-Lung Kuo** and Gyeong S. Hwang, "Oxygen Vacancies Related Defects on *a*-SiO₂ Surfaces", MRS Fall Meeting 2006, Boston, MA.
2. Tsung-Ju Chen and **Chin-Lung Kuo**, "Structures, Defects, and Electrical Properties of Amorphous Hafnia and Hafnium silicates", MRS Spring Meeting 2010, San Francisco, CA.
3. Chen-Wei Chen and Chin-Lung Kuo, "Fundamental understanding of the structural and electronic properties of hydrogenated amorphous silicon", MRS

Spring 2010, San Francisco, CA.

4. Chen-Wei Chen and Chin-Lung Kuo, "First Principles Study of the Structural, Optical and Electronic Properties of Hydrogenated Amorphous Silicon", MRS Spring 2011, San Francisco, CA.
5. Chien-Ming Huang and Chin-Lung Kuo, "First Principles Study of the Self-Doped Effect on the Photocatalytic Activity of Anatase Titanium Dioxide", MRS Spring 2011, San Francisco, CA.

Domestic Conference Papers

1. 陳宗儒，郭錦龍，“以第一原理分子動態模擬探討非晶相二氧化鈣之基本結構與性質”，中華民國陶業研究學會 2009 年會，台北。
2. 陳宗儒，郭錦龍，“非晶相二氧化鈣之電性與介電性質分析以及缺陷生成能力的探討”，中華民國材料年會 2009，台北。
3. 何承蔚，郭錦龍，“以原子級尺度模擬探討非晶碳化矽之基本結構與性質”中華民國陶業研究學會 2010 年會，台中。
4. 何承蔚，郭錦龍，“運用第一原理計算與分子動態模擬探討氫化過程
5. 對非晶矽的結構、電子、與光電性質之影響“，中華民國材料年會 2010，高雄。
6. 黃千鳴，郭錦龍，“機械應變對 Anatase TiO₂ 光觸媒催化活性影響之理論分析”，中華民國陶業研究學會 2010 年會，台中。
7. 黃千鳴，郭錦龍，“機械應變與氧空缺對 Anatase TiO₂ 光觸媒催化活性影響之理論分析”，中華民國材料年會 2010，高雄。
8. 姜翰昕，郭錦龍，“以第一原理計算探討非晶質鋰矽合金的結構與電子性質”，中華民國陶業研究學會 2011 年會，台北。
9. 楊淇任，郭錦龍，“利用第一原理計算探討石墨烯與二氧化矽基材間的相互作用”，中華民國陶業研究學會 2011 年會，台北。