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Degree

- 1983 B.E. : Hanyang University, Engineering
- 1986 M.S. : University of Wisconsin-Madison, Engineering
- 1993 Ph.D. : University of Wisconsin-Madison, Engineering

Experience

- 1998~Present Univ. of Incheon, Assistant Professor, Associate Professor, Professor
- 2005~2006 MIT, Visiting Professor
- 1994~1997 Samsung Electronics, Senior Researcher
- 1993~1994 University of Wisconsin-Madison, Post Doctor

Major

- Micro-electronic Packaging

Teaching

- Physical Chemistry of Materials, Materials Mechanics, Semiconductor Assembly

Representative Research

- Adoption of Single-Sided Adhesive tape to Improve Thermal-Cycling Reliability in Semiconductor Devices, Current Applied Physics, Vol. 11, pp. S396 (2011)
- Effect of Grinding-Induced Scratch Geometry on Fracture Strength of Semiconductor Devices, Surface Review & Letters, Vol. 17, No 3, pp.1 (2010)

Researches

- A Effect of Grain Size Evolution in Au-Wire Ball on Debonding Failure with Al-Pad in Semiconductor Devices, Thin Solid Films, Vol. 641, pp.69 (2017)
- Effect of Sub-Micro or Nano-Scale Defects Resulting from Various Wafer Finishing Processes on Degradation--, J. of Nanosci. & Nanotech., Vol.17, pp.7830 (2017)
- Adoption of Hybrid Dicing Technique to Minimize Sawing-Induced Damage, The Japan Institute of Metals and Materials, Vol. 58, No. 4, pp. 530 (2017).
- Dependence of Chipping Damage on Crystallographic Orientation during Mechanical Dicing of Silicon Wafers, J. of Nanoscience & Nanotechnology, Voi. 16, pp.1 (2016)
- Effect of Sawing Velocity Variation on Chipping Damage of Semiconductor Wafers with Different Thickness, KJMM, Vol. 54, No. 8, pp.598 (2016)
- Effect of Polishing Process of Semiconductor Wafer on Fracture Mechanics of Diced Chips, KJMM, Vol. 54, No. 3, pp.204 (2016)
- Effect of Sawing Velocity Variation on Mechanical Dicing-Induced Damage in Semiconductor Silicon Wafer, KJMM, Vol. 53, No. 5, pp.306 (2015)
- Advanced LOC Tape Design to Improve Thermal-Cycling Reliability in Semiconductor Devices, Science of Advanced Materials, Vol. 6, pp.1 (2014)

Current Research

- Design of 3-Dimensional Microelectronic Packages
- Reliability Improvement of Plastic-Encapsulated Microelectronic Packages