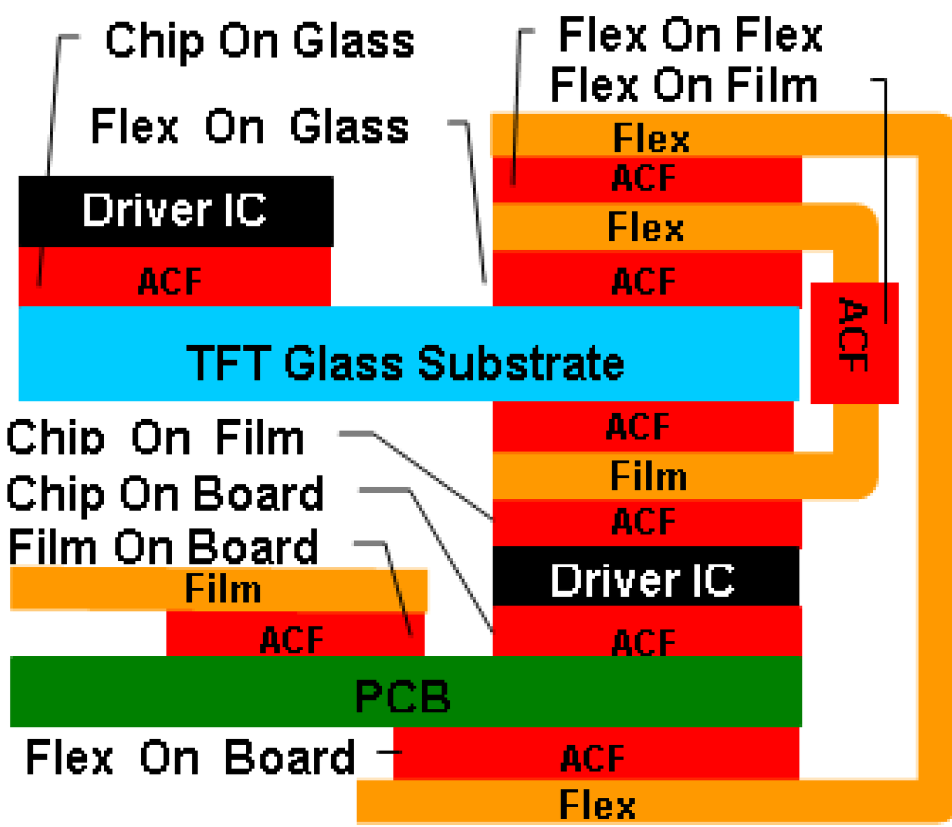
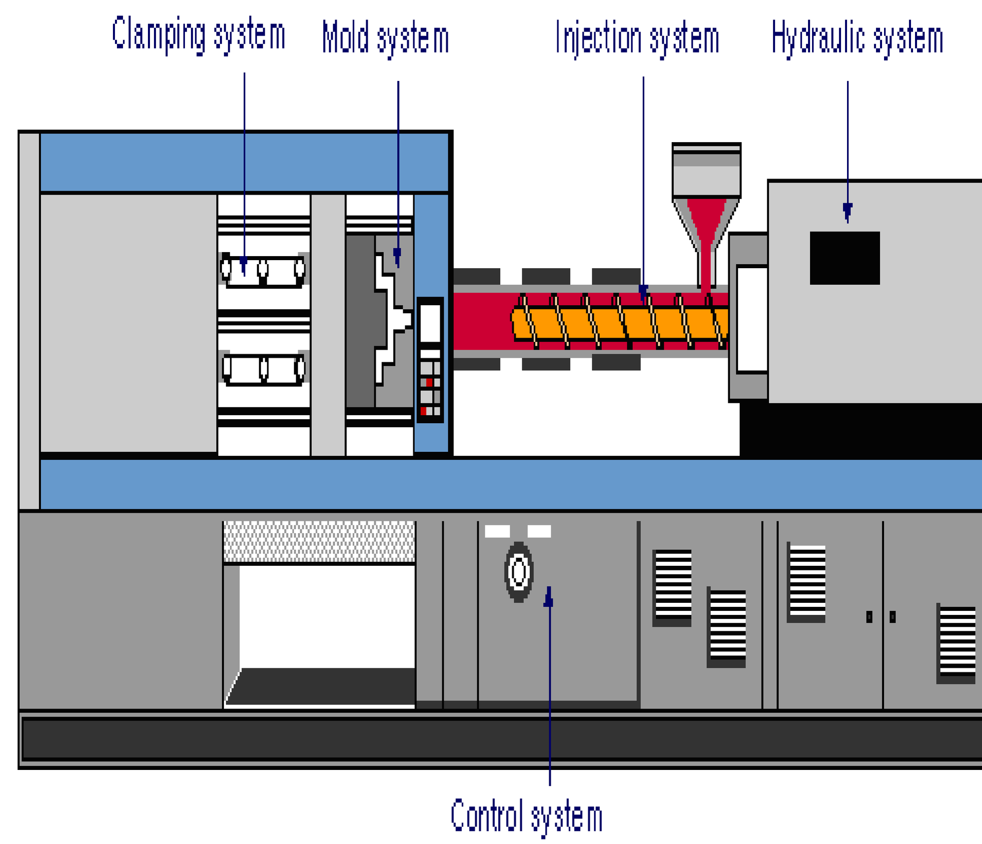
國立嘉義大學 機械與能源工程學系

林肇民 教授 研究室

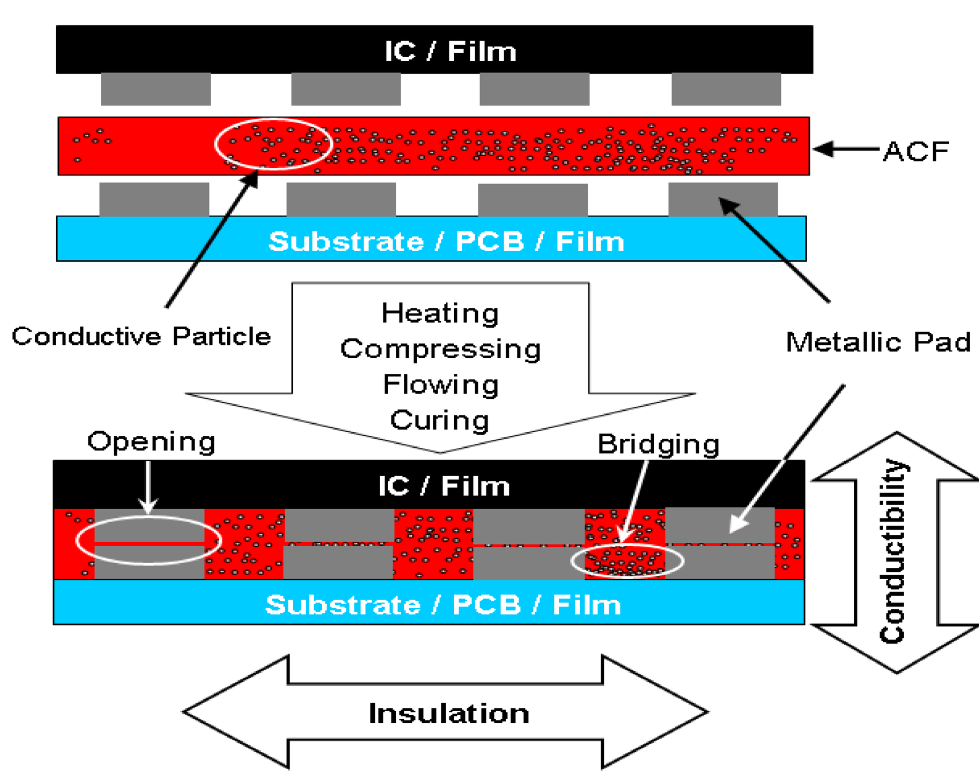


Materials R&D on the Anisotropic Conductive Film

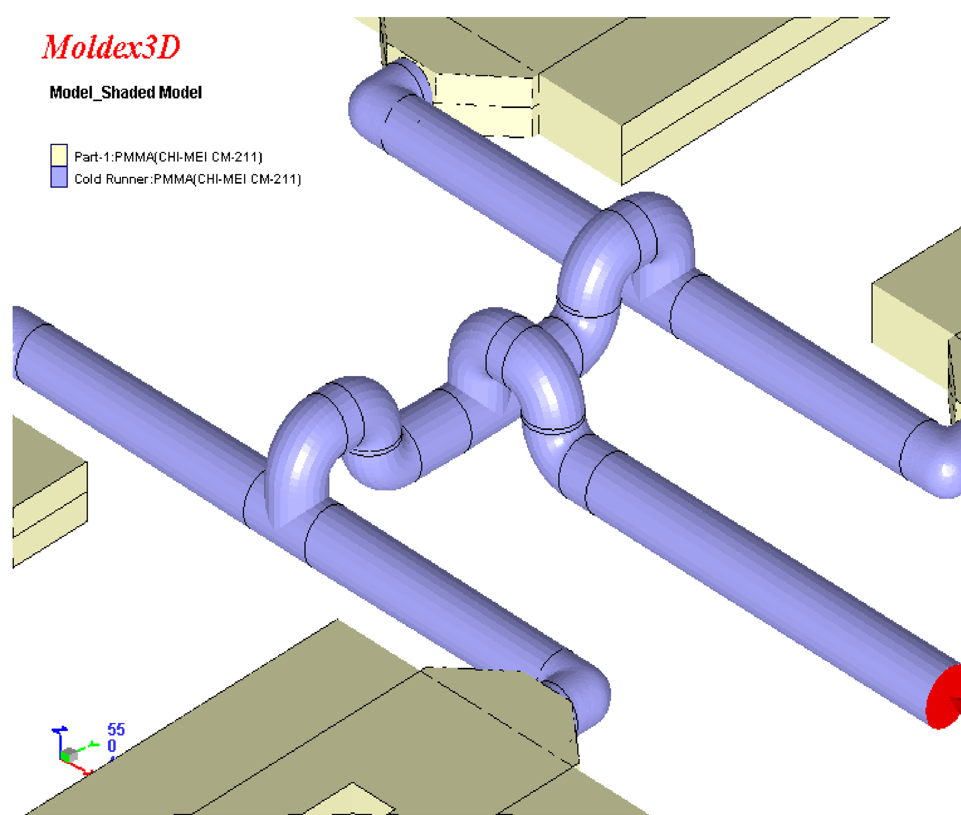


Injection Molding Processing Analysis

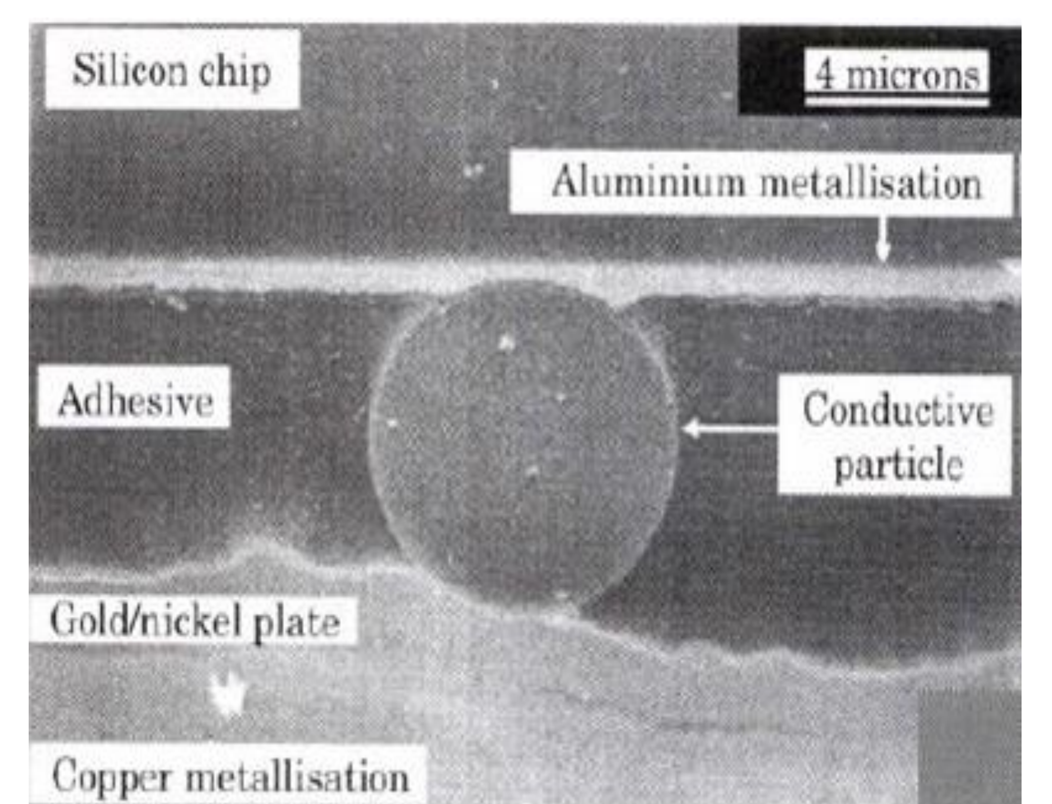
Micro-Channel Analysis: LabCD



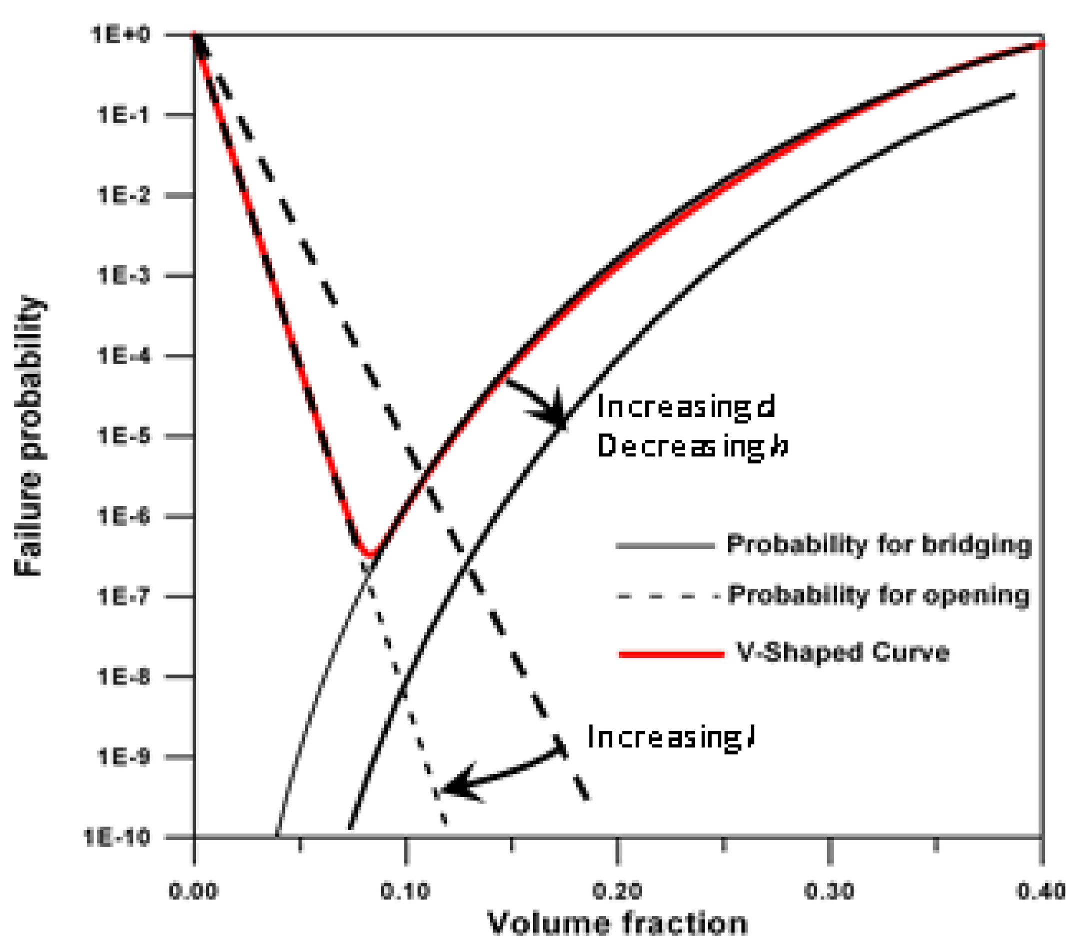
Processing Analysis on the Fine-Pitch Interconnection of Microsystem Packaging



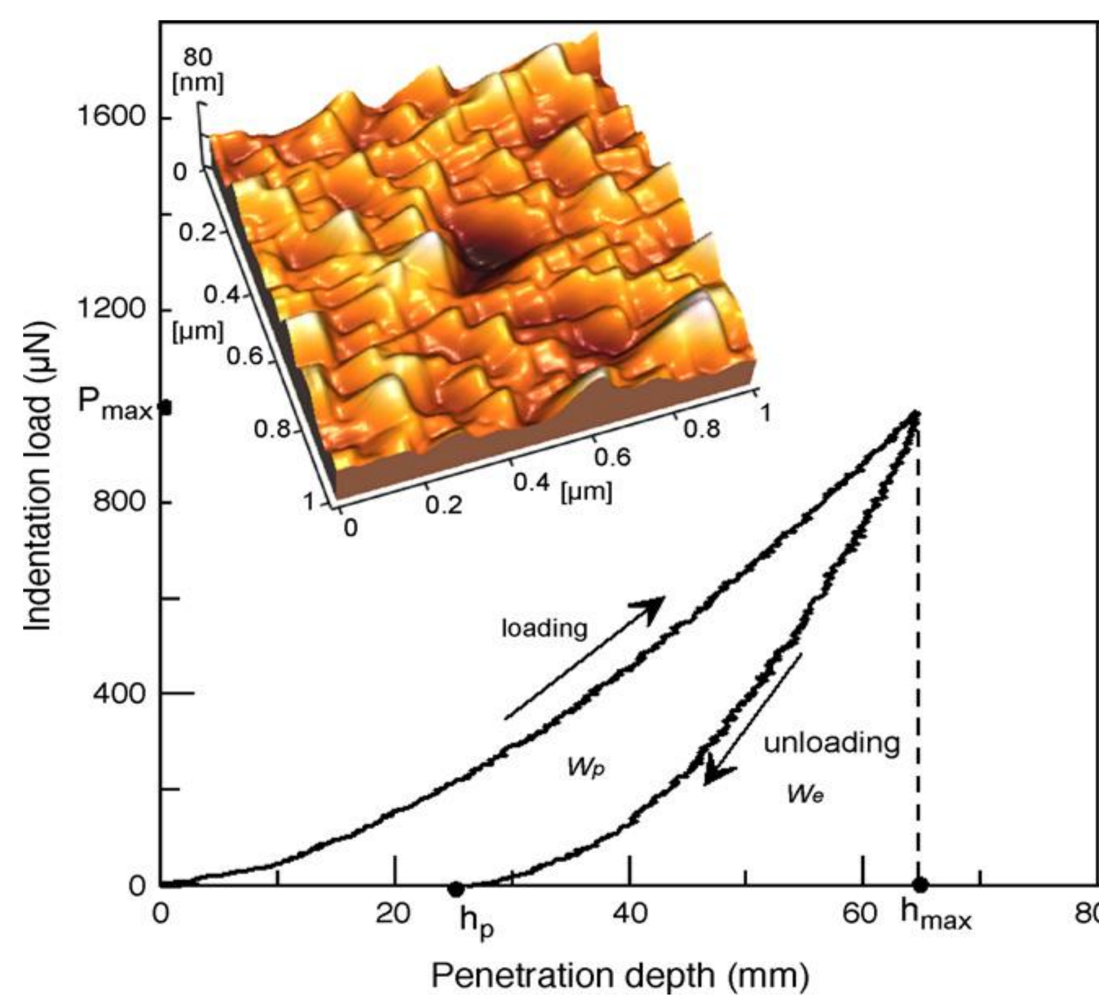
Innovation on Runner System Design: Melt-Flipper Simulation



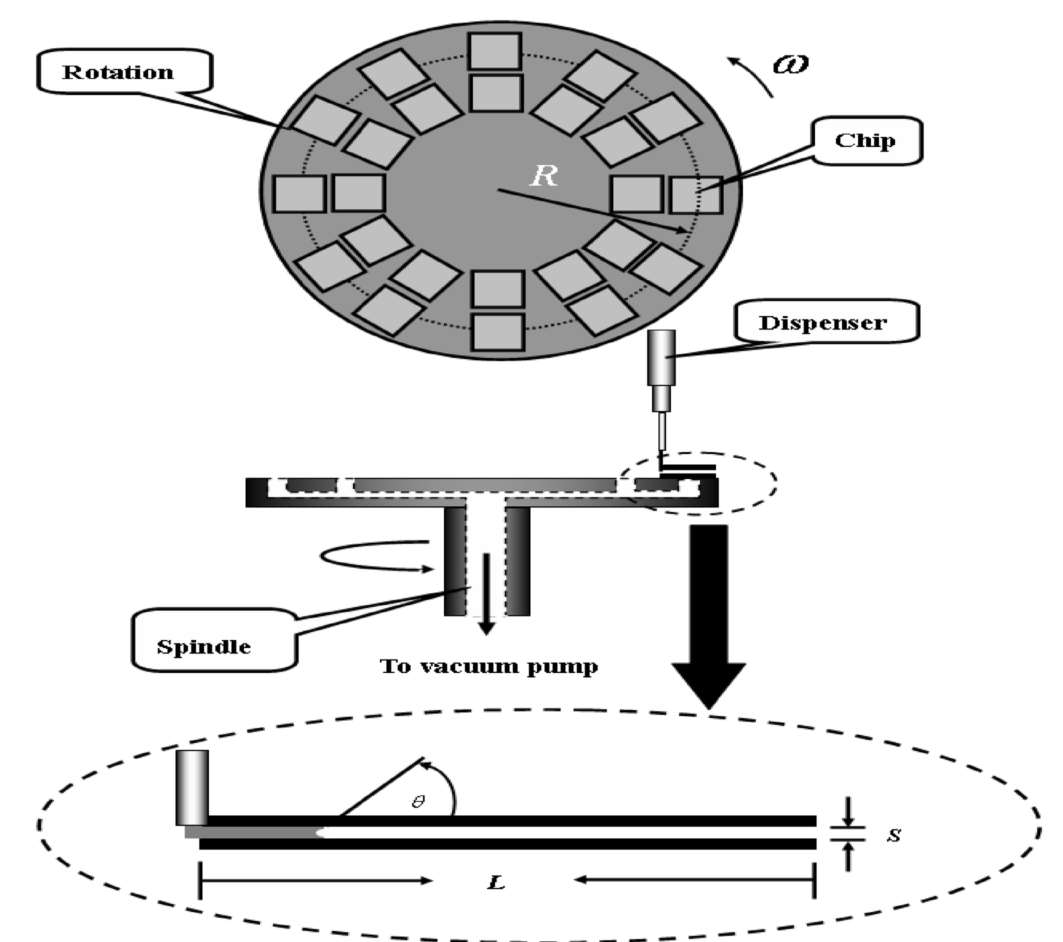
Performance Analysis: Conductive Particles



Developed Method by Dr. Lin: V-Shaped Curve Method



Nanotechnology using AFM indentation



IC Packaging Designation: Inertia Effect

Distinguished Publications by Chao-Ming Lin(C. M. Lin)-Masterpieces: Selected Ten SCI Papers

1. **C. M. Lin***, "Enhancement of Underfill Capillary Flow in Flip-Chip Packaging by means of the Inertia Effect", ***IEEE Trans. on Advanced Packaging***, vol. 27, no. 3, pp. 533-539, 2004.
2. **C. M. Lin***, M. H. Su, W. J. Chang, "The Prediction of Failure Probability in Anisotropic Conductive Adhesive (ACA)," ***IEEE Trans. on Device and Materials Reliability***, vol. 5, no. 2, pp. 255-261, 2005.
3. **C. M. Lin***, W. J. Chang, T. H. Fang, "Analysis of New Anisotropic Conductive Film (ACF)", ***IEEE Trans. on Device and Materials Reliability***, vol. 5, no. 4, pp. 694-700, 2005.
4. **C. M. Lin***, W. J. Chang, T. H. Fang, "Flip-Chip Underfill Packaging Considering Capillary Force, Pressure Difference, and Inertia Effects," ***ASME Trans. Journal of Electronic Packaging***, vol. 129, pp. 48-55, 2007.
5. **C. M. Lin***, "Effects of Systematic and Stochastic Errors on Estimated Failure Probability of Anisotropic Conductive Film," ***IEEE Trans. on Device and Materials Reliability***, vol. 7, no. 3, pp. 387-398, 2007.
6. **C. M. Lin***, T. C. Lin, T. H. Fang, K. S. Chao, "Failure Analysis of Pad-Height Effects in the Fine-Pitch Interconnection of the Anisotropic Conductive Films," ***Microelectronics Reliability***, vol. 48, no. 7, pp. 1087-1092, 2008.
7. **C. M. Lin***, C. M. Tan, T. H. Tasi, Y. C. Liu, "Failure Analysis of Anisotropic Conductive Film Packages With Misalignment Offsets," ***IEEE Trans. on Device and Materials Reliability***, vol. 10, no. 1, pp. 9-17, 2010.
8. **C. M. Lin***, T. C. Lin, T. H. Fang, Y. C. Liu, "Failure Probability Estimation of ACF Packages with Asy- U/L Pad Size and Misalignment Offsets," ***IEEE Trans. on Device and Materials Reliability***, vol. 11, no. 3, pp. 368-377, 2011.
9. **C. M. Lin***, "Effects of Pad Array Dimensions and Misalignment Offsets on Optimal Fraction of Conductive Particles in ACF Packages," ***IEEE Trans. on Device and Materials Reliability***, vol. 13, no. 1, pp. 301-309, 2013.
10. **C. M. Lin***, "Estimation of ACF Packaging Failure Probability for IC / Substrate Assemblies with Different Pad Array Dimensions," ***Journal of Materials Science: Materials in Electronics***, vol.25, no.2, pp. 618-626, 2014.