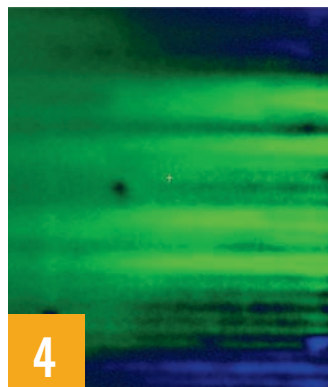


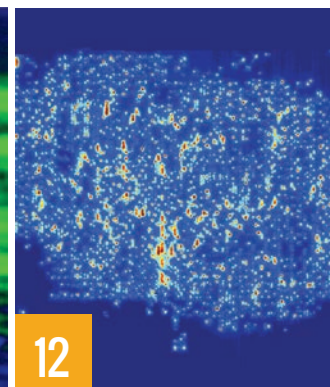
4 Emerging Techniques in Atomic Force Microscopy: Diamond Milling and Electrostatic Force Microscopy

Stephen Ippolito, Sean Zumwalt, and Andy Erickson

Read about diamond milling and electrostatic force microscopy to enhance FA turnaround time and success rate.



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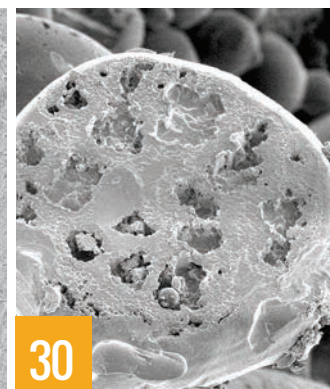
12 Automated High-Resolution Imaging of Very Large Fields of View (FOV)

Franco Stellari, Chung-Ching Lin, and Peilin Song

A method for automated mapping of very large chips has important applications for circuit testing, FA, and security.



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30

20 A Process for Thinning and Polishing Highly Warped Die to High Surface Quality and Consistent Thickness: Part I

Kirk A. Martin

This article describes a thinning and polishing process that results in minimal surface imperfections and a very constant die thickness.

30 A Case Study of Encapsulated IC Accelerated Failure due to the Kirkendall Effect on Downhole Circuits

John Bescup

Application of analysis methods can provide understanding of the mechanisms behind component failures in the downhole environment.

ABOUT THE COVER

Electrical overstress damage generated from the substrate up to the metallization. The challenge was to take care of the tungsten plugs during deprocessing in order to visualize the energy flow direction. The technique—SEM backscatter electron detector in low-vacuum mode—provided high color contrast of the fused contact. The shape, color, and contrast are similar to natural structures created by erosion in the Nevada desert. *Photo by Yann Weber, Freescale Semiconducteurs SAS, France. First Place Winner in False Color Images, 2014 EDFAS Photo Contest.*

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