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SEM Analysis of Glue Behavior When Bonding Glass Structures with Complex Geometries

Yuri Sikorski

Robert Cunningham

Herman Orgeron

Chris Schenck

Ali Zand

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Chair: Ernie Behringer, Eastern Michigan University

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Preview Abstract

← *Abstract*

Authors:
Yuri Sikorski
(Kettering University)

Robert Cunningham
(Kettering University)

Herman Orgeron
(Kettering University)

Chris Schenck
(Kettering University)

Ali Zand
(Kettering University)

Bonding of glass has been studied for many years and is a mature technology today. However, the recent advances in bio-photonics and micro-fluidics, such as lab-on-a-chip devices, accentuate a need to provide reliable adhesion and sealing of components with extremely complex surface geometries. In many cases it is necessary to prevent the adhesives from leaking into microscopic channels, capillaries and holes. We present the Scanning Electron Microscopy study of adhesion of glass samples with complex surface features. Variety of adhesion conditions and procedures were tried and studied. The results demonstrate the possibility of controlled reliable adhesion and sealing without filling/obstructing the microstructures.

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