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## **Growth of buried silicon oxide in Si–Si bonded wafers upon annealing**

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Properties of the buried silicon oxide layer in Si–Si bonded wafers upon annealing were studied using Infrared (IR) spectroscopy and high resolution transmission electron microscopy (HRTEM). IR spectra of chemically etched Si–Si bonded wafers allow the thickness of the buried oxide layers to be evaluated. The increasing thickness of the buried oxide layer with annealing temperature is determined via a curve fitting procedure of IR spectra measured in the spectral range of longitudinal optical and transversal optical phonons in silicon oxide. The behavior observed is in very good agreement with that obtained from HRTEM measurements. ©2001 American Institute of Physics.

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