

**Measurements of the Thermal Conductivity of Thin Film Amorphous Materials**

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We report on measurements of the thermal conductivity of a number of novel amorphous materials, including several that have a low dielectric constant and which are of current interest for use as insulators in computer chips. The samples were in the form of thin films deposited onto silicon substrates. Measurements were made using an optical technique in which the film is heated with a picosecond light pulse, and a time-delayed, probe light pulse is used to measure the temperature of the film as a function of time. We will compare the results with the conductivity of other amorphous dielectrics.