

ABSTRACT

A semiconductor package includes a first substrate including silicon, a first insulating layer in contact with the first substrate, the first insulating layer including silicon oxide, the first insulating layer having a first concentration of silicon, a second insulating layer in contact with the first insulating layer, the second insulating layer including silicon oxide, the second insulating layer having a second concentration of silicon, the second concentration lower than the first concentration, and a structure on the second insulating layer. The first concentration is a ratio of a weight of silicon in the first insulating layer to a total weight of the first insulating layer, the second concentration is a ratio of a weight of silicon in the second insulating layer to a total weight of the second insulating layer, and the first concentration is in a range from 20 wt% to 50 wt%.

FIG. 1