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(54) **Title:** METHODS FOR BONDING SEMICONDUCTOR SUBSTRATES

(57) **Abstract:** Methods for preparing a substrate and bonding two substrates together which include a bonding layer disposed directly over and in contact with a barrier layer in which the bonding layer has a higher water diffusivity than the barrier layer. A substrate and a bonded pair of substrates is also disclosed.

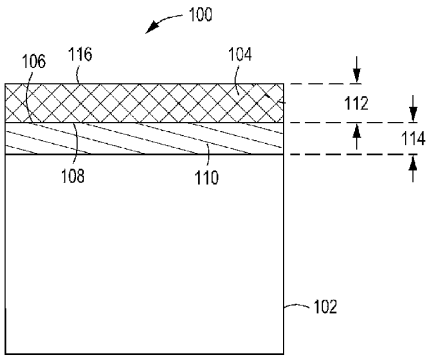


FIG. 1