

ABSTRACT

A semiconductor device forming method includes a step for forming a coating
5 layer (Ps) and a step for performing etching. In the step for forming a coating layer
(Ps), the coating layer (Ps) is formed. The coating layer (Ps) selectively covers a
portion of a recess(R) provided in a stacked structure (L) supported by a base member
(S). The portion of the recess is located on a front surface side of the recess. In the
step for performing etching, a deep portion (Rf), which is deeper than the coating layer
10 (Ps), of the recess (R) is etched with a chemical liquid (C) so as to widen a diameter of
the deep portion (Rf).