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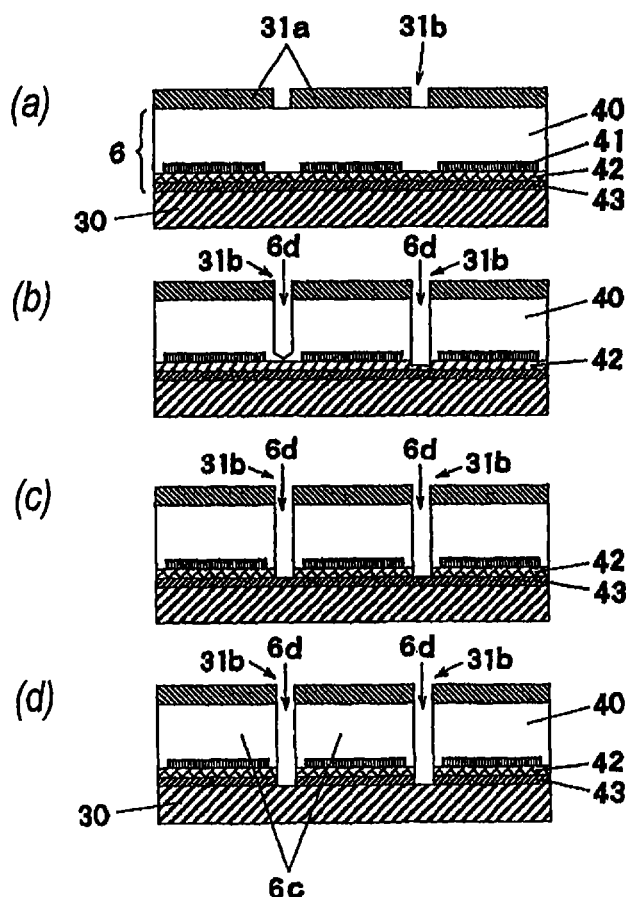
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(54) Title: METHOD OF MANUFACTURING SEMICONDUCTOR DEVICE AND CUTTING APPARATUS FOR CUTTING SEMICONDUCTOR WAFER



(57) Abstract: In the process of plasma dicing in which the semiconductor wafer (6) is divided into individual pieces by plasma, SiO<sub>2</sub> layer (42) and the protective layer (43), which are formed covering the active layer (41), are utilized as an etching stop layer for absorbing fluctuation of the etching rate in the first plasma dicing step in which the wafer base layer (40) is etched and cut off. Next, the second plasma dicing step is conducted in which the etching stop layer exposed by the first plasma dicing step is cut off with plasma of the second plasma generating gas capable of etching at a high etching rate, and heat damage is prevented which is caused when the protective sheet (30) is exposed to plasma for a long period of time.

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