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A semiconductor device includes a conductive pattern, and a capacitor electrically connected to the conductive pattern. The capacitor includes a first electrode structure electrically connected to the conductive pattern, a dielectric layer disposed on the first electrode structure, a second electrode structure disposed on the dielectric layer, and a plate electrode disposed on the second electrode structure. The second electrode structure includes a first electrode material layer including a first metal element and a nitrogen element, and a first protective material layer including a second metal element, a Group 14 element, and an oxygen element.

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