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(54) METHOD FOR MANUFACTURING CAPACITOR ARRAY, CAPACITOR ARRAY, AND SEMICONDUCTOR DEVICE

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### **ABSTRACT**

A method for manufacturing a capacitor array includes: providing a substrate provided with a device area configured for forming a capacitor and a peripheral area located at a periphery of the device area; forming successively a first support layer and a first sacrificial layer on the substrate; etching the first sacrificial layer of the peripheral area to expose the first support layer, so as to form a first via; and filling the first via to form a support pillar.

201 A substrate provided with a device area configured for forming a capacitor and a peripheral area located at a periphery of the device area is provided 202A first support layer and a first sacrificial layer are successively formed on the substrate 203 The first sacrificial layer in the peripheral area is etched to expose the first support layer, so as to form a first via 204 The first via is filled to form a support pillar