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MANUFACTURING ELECTRONIC DEVICE**

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(57)

ABSTRACT

A method for manufacturing an electronic device including a semiconductor memory may include forming a first carbon electrode material, surface-treating the first carbon electrode material to decrease a surface roughness of the first carbon electrode material, and forming a second carbon electrode material on the treated surface of the first carbon electrode material. The second carbon electrode material may have a thickness that is greater than a thickness of the first carbon electrode material.

