一种基于压控型忆阻器的忆容器模型

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摘 要：分析了忆阻器与忆容器之间的关系，提出了基于电压控制型忆阻器的忆容器模型. 用 Pspice 软件对该模型进行了仿真实验，发现该模型中忆容器的忆容值与忆阻器的忆阻值成线性关系，忆容器的电压—电荷曲线呈现典型的非线性迟滞回线特性. 在验证了所提出忆容器模型正确性的基础上，进一步分析了忆容器的电气特性.

关键词：忆容器；忆阻器；模型；Pspice
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A Memcapacitor Model Based on Voltage-controlled Memristor

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Abstract: In this paper , a model for transferring a voltage-controlled memristor into memcapacitor is described, of which the realization is on the basis of an analysis of the relationship between memristor and memcapacitor. Results of Pspice simulation indicate that: in the model the relationship between memristance and memcapacitance is linear , and the v-q characteristic of the memcapacitor is a typically non- linear pinched hysteretic loop. After conforming the correctness of the model , a further Pspice simulation is conducted in order to analyze and observe the characteristics of memcapactor.

Key words: memcapacitor; memristor; model; Pspice

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