

Chalcogenide 기반 메모리 소자의 스위칭 특성 향상을 위한 광학패턴 형성

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Programmable Metallization Cell (PMC) Random Access Memory is based on the electrochemical growth and removal of electrical nanoscale pathways in thin films of solid electrolytes. In this study, we investigated the nature of thin films formed by the photo doping of copper ions into chalcogenide materials for use in programmable metallization cell devices. These devices rely on metal ions transport in the film so produced to create electrically programmable resistance states. The results imply that a Cu-rich phase separates owing to the reaction of Cu with free atoms from chalcogenide materials.

