

Abstract

In this work, The memory structures are Al / BZO / TaN and Ni / BZO / Ni thin films were deposited by using RF sputtering . Anneal 600°C by using RTA in N₂ for seven minutes. The electrical characteristics were studied including resistance switching, conduction mechanism , Many metal–insulator–metal systems show electrically induced resistive switching effects and have therefore been proposed as the basis for future non-volatile memories. They combine the advantages of Flash and DRAM (dynamic random access memories) while avoiding their drawbacks, and they might be highly scalable.

Keywords: resistance switching , conduction mechanism , boron doped ZnO (BZO) filament ◦