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Sreedevi VALLABHAPURAPU

School of Computing, University of South Africa (UNISA), Johannesburg

Resistive switching memory in Nano particle incorporated polymer & bio-degradable films

Abstract

Resistive switching in nano particle incorporated polymer and bio degradable films is now a fast growing field as it has memory applications. Further the conduction mechanisms involved that lead to switching are of great interest.

Giving a brief summary of the status of different emerging memory systems, I shall describe our work and recent results on resistive switching in :

1. PMMA-Al doped ZnO nano particles,
2. PVA-reduced graphene oxide
3. Gelatin-Graphene Oxide,
4. Gelatin-CdTe quantum dots and
5. Gelatin-Silver nano particles.

Through systematic I-V characterization, the conduction mechanisms in these systems have been established.