

Nickel Nanocrystals embedded in MANOS Low Temperature Poly-Silicon Thin
Film Transistor with Low Programming/Erasing Voltage for Non-Volatile
Memory Application

劉育成, 吳建宏, Terry Tai-Jui Wang, 呂天麟, Cheng-Tzu Kuo, 謝昶家

Electronics Engineering

Engineering

rossiwu

Abstract

In this work, a MANOS thin film transistor nonvolatile memory with Ni-nanocrystals was fabricated. Ni-NCs size ranges and density were approximately 5 ~ 13 nm and $5 \times 10^{11} \text{ cm}^{-2}$, respectively. After the low gate voltage stressing, the large memory window was obtained by current-voltage measurements.

Keyword : thin film transistor non-volatile memory application