
Symposium (Oral) | Symposium | New functional memory devices with oxide materials and their physics

[14a-A401-1~5]New functional memory devices with oxide materials and their physics

Kazuhiko Yamamoto(KIOXIA Corporation)

Sat. Mar 14, 2020 9:15 AM - 11:55 AM A401 (6-401)

△ : Presentation by Applicant for JSAP Young Scientists Presentation Award

▲ : English Presentation

▼ : Both of Above

No Mark : None of Above

9:45 AM - 10:15 AM

[14a-A401-2]Resistive Switching Memory using Ferroelectric Tunnel Oxide

OMarina Yamaguchi¹, Shosuke Fujii¹, Kensuke Ota¹, Masumi Saitoh¹ (1.Kioxia)

Keywords:Ferroelectric HfO₂, Ferroelectric Tunnel Junction, Non-volatile Memory

A HfO₂-based ferroelectric tunnel junction memory (HfO₂ FTJ) is attracting much attention as a future non-volatile memory device. We have demonstrated the HfO₂ FTJ with excellent characteristics such as low operation current in nA-range. This presentation will provide a solid guideline for the performance and reliability improvement of the HfO₂ FTJ, and discuss about applications of this emerging ferroelectric memory.