13-1 09:00~09:25

[Invited] SELAX Technology for Poly-Si TFTs Integrated with Amorphous-Si TFTs
We developed the advanced LTPS (A-LTPS) manufacturing process. The a-Si TFT process was combined with selectively enlarging laser crystallization (SELAX) technology to improve the carrier mobility in the region where the peripheral circuits are to be fabricated. ...

13-2 09:25~09:45

Drain Induced Barrier Lowering and Impact Ionization Effects in Short Channel Polysilicon TFTs
G. Fortunato, A. Valletta, P. Gaucci, L. Mariucci, M. Cuscuña, L. Maiolo, and A. Pecora (IMM-CNR, Italy)
The effect of channel length reduction on the electrical characteristics of self-aligned polysilicon TFTs has been investigated by combining experimental characteristics and 2-D numerical simulations. The role of drain induced barrier lowering and floating body effects has been carefully analyzed using numerical simulations.

13-3 09:45~10:05

Nonvolatile Memory Devices with Oxide-nitride-oxynitride Stack Structure for System on Panel of Mobile Flat Panel Display
S. Jung, B.-D. Choi, and J. Yi (Sungkyunkwan Univ., Korea)
In this work, nonvolatile memory (NVM) devices for system on panel of flat panel display (FPD) were fabricated using low temperature polycrystalline silicon (LTPS) thin film transistor (TFT) technology with an oxide-nitride-oxynitride (ONOn) stack structure on glass. ...

13-4 10:05~10:25

Quad-functional Built-in Test Circuit for DRAM-frame-memory Embedded SOG-LCD
K. Takatori, H. Haga, Y. Nonaka, and H. Asada (NEC LCD Technologies, Ltd., Japan)
A quad-functional built-in test circuit has been developed for DRAM-frame-memory embedded SOG-LCDs. The quad function consists of memory test, display test, serial transfer test, and parallel transfer test which is the normal operation mode for our SOG-LCD. ...