

**Quenching rate controlled Laser Annealing (QLA) for poly-Si TFT fabrication**

Gyoo.W Han, Voronov Alexander, S. G Ryu, H. S Kim, C. L Roh

Production engineering Lab, Production engineering center, Samsung SDI

Shin-dong, 575-1, Youngtong-gu, Suwon, Gyeonggi-do, Korea, 443-391

**[Abstract]**

We report QLA (Quenching-rate controlled Laser Annealing) system as new concept using pulsed DPSSL and CW lasers. This process can control temperature quenching-rate of poly-Si crystallization by additional CW laser and fabricate high quality poly-Si with faster scanning speed than conventional processes. In this paper, QLA system, the experimental results and theoretical discussion will be introduced.