

## Fabrication of nc-Si/SiO<sub>2</sub> Multi-Layer Structure by using LPCVD

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It is necessary to decrease the switching speed and the operating voltage of the floating-gate non-volatile memories. We thought the development of the floating gate is very important to improve the property of the floating-gate non-volatile memories. So we carried out the experiment about developing the storage layer containing nano-crystal silicon dots. In this work, Si nano-crystals are deposited on SiO<sub>2</sub> repeatedly by Low Pressure Chemical Vapor Deposition, using standard semiconductor equipments<sup>(1)</sup>. We expected this structure would be improved the property of the floating gate and observed the property of multi-level device.

[참고문헌]

1. B. De Salvo et al., "How far will silicon nanocrystals push the scaling limits of NVM's technologies?", in IEDM Tech. Dig. 2003, 597 (2003).