Abstract: This experiment is an NVM of Oxide, Nitride, Oxide nitride, blocking, trapping, and tunneling in Poly-Si(SPC) NVM. The gate is made of SiO2 and the source/drain is made of amorphous Silicon nitride and Silicon dioxide. The channel length is 12.5nm/20nm/2.3nm. During the program process, the Poly Silicon dioxide is used in the oxide nitride tunneling layer. The erasing process involves trapping and poly Silicon dioxide. During the programming process, the positive voltage is applied to the poly Silicon dioxide, and the negative voltage is applied during the erasing process. The 1d-Vg feature is used to implement 10 years of data storage. This experiment, which is described in this paper, shows that the Poly-Si(SPC) NVM is a potentially useful technology.

Key Words: nonvolatile memory, MONOS, glass substrate, solid phase crystallization.