

The influence of Al₂O₃ layer growth temperature to the electrical properties of SWNT network Transistors

민신철¹, 김언정², 이은홍², 박완준¹

¹한양대학교, ²Frontier research lab. 삼성종합기술원

Alumina oxide(Al₂O₃) layers has been used on SWNT network transistors as top-gate dielectric material by atomic layer deposition. The influence of Al₂O₃ layer grown at a different growth temperature (150°C<T<350°C) to the electrical properties of SWNT network Transistors has been investigated. It seems that the polarity of SWNT network transistors changes from ambi-polar to N-type with higher deposition temperature.