Investigation of Discrete Reactant Feeding for Atomic Layer Deposition of In₂O₃ Using Novel Alkyl-Cyclopentadienyl Indium precursor

Hae Lin Yang^a, Hye-Mi Kim^a, Takashi ONO^b, Sunao KAMIMURA^b, Aya EIZAWA^b, Takashi TERAMOTO^b, Christian DUSSARRAT^b, and Jin-Seong Park^{a,*}

^a Division of Materials Science and Engineering, Hanyang University, 222 Wangsimni-ro, Seongdong-gu, Seoul, 04763, Republic of Korea

^b Air Liquide Laboratories, Tokyo Innovation Campus, 2-2 Hikarinooka, Yokosuka, Kanagawa 239-0847, Japan

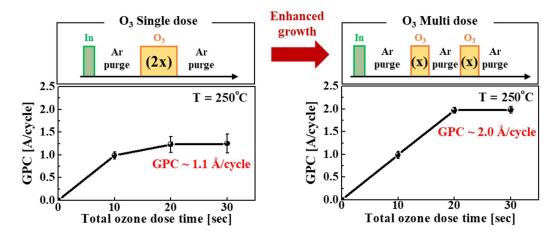


Figure 1. Boost the growth rate of ALD In₂O₃ films by applying the discrete reactant feeding method.

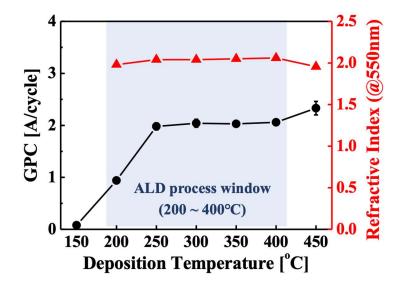


Figure 2. Broad ALD process window from 200°C to 400°C