

JSR Multi-layer Hardmask Materials

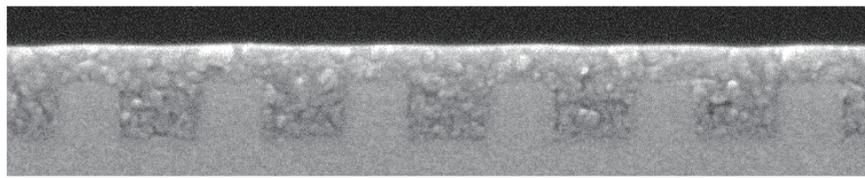
Planarization and Gap-filling UDL for Topography Process

Planarization

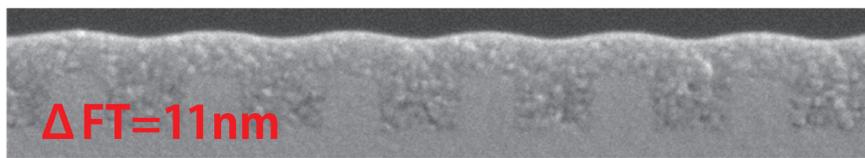
100nm Open Area



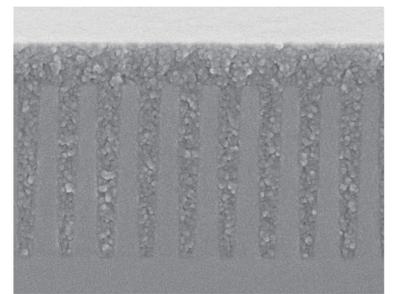
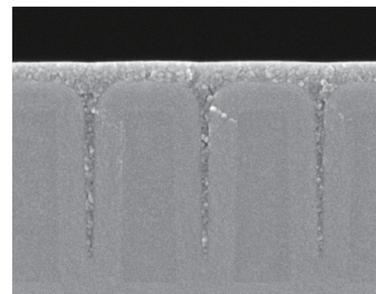
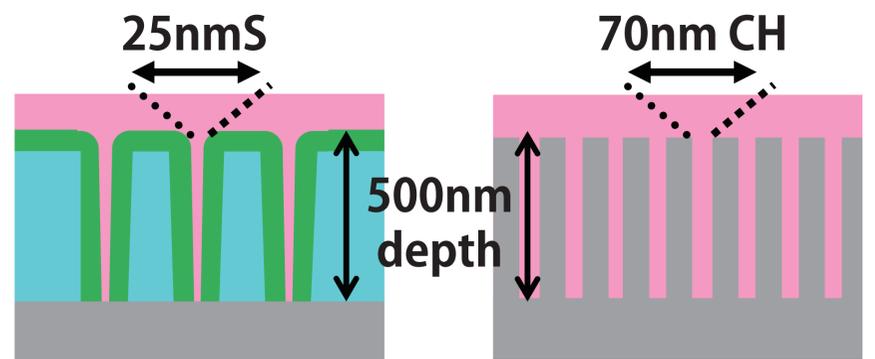
◆ Latest UDL



◆ Standard UDL

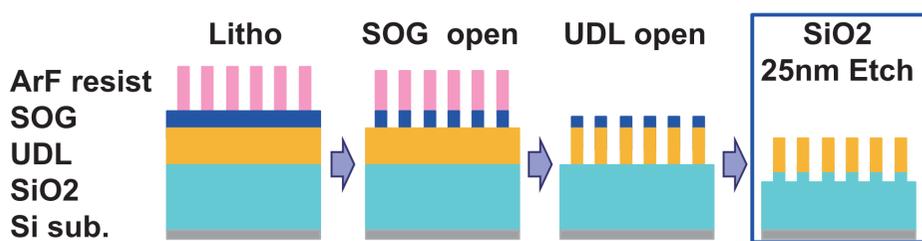


Gap-filling



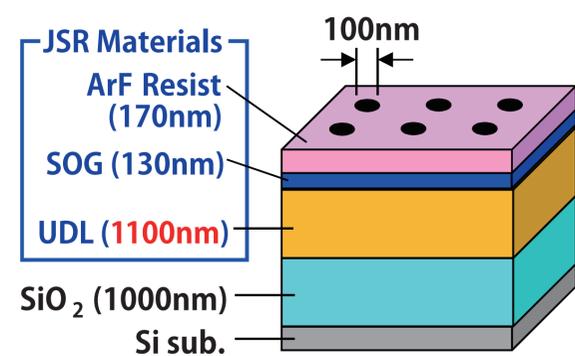
Demonstration of Pattern Transfer with UDL

Wiggle Resistance (LS)

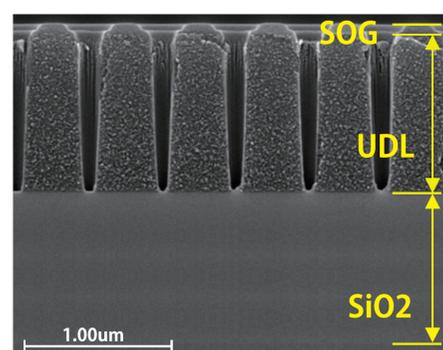


Line CD after etch	20.0nm	18.0nm	16.0nm
Latest UDL	LER=1.8	2.0	2.8
Standard UDL	LER=3.1	4.0	wiggling

Deep Pattern Transfer (CH)

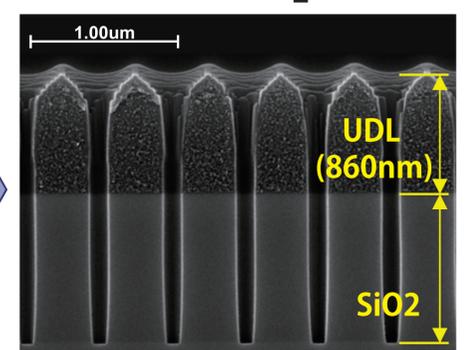


◆ After UDL Etch



Si sub.

◆ After SiO₂ Etch



Si sub.