

FIG. 1A

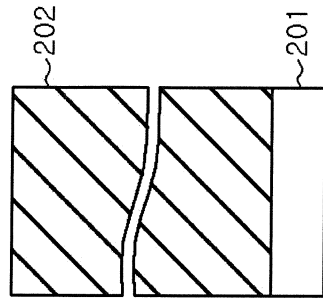


FIG. 1B

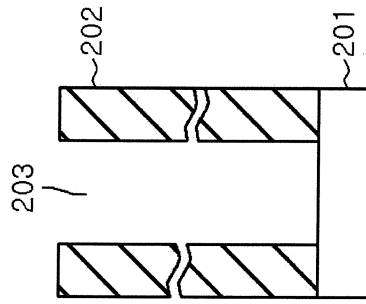


FIG. 1C

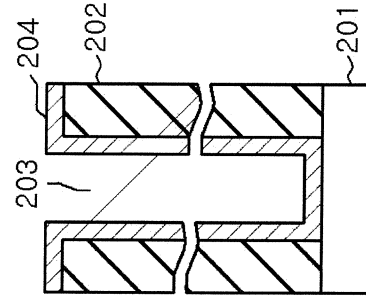


FIG. 1D

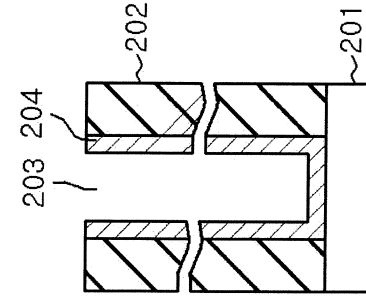


FIG. 1E

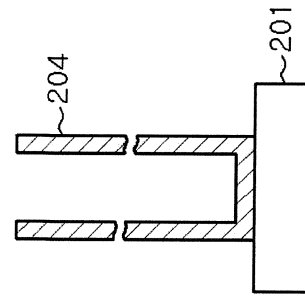


FIG. 1F

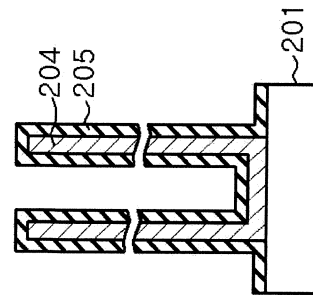


FIG. 1G

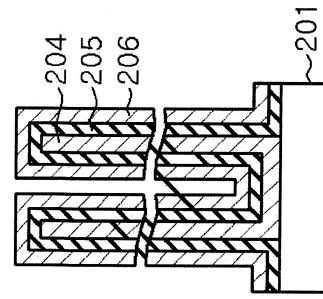


FIG. 2

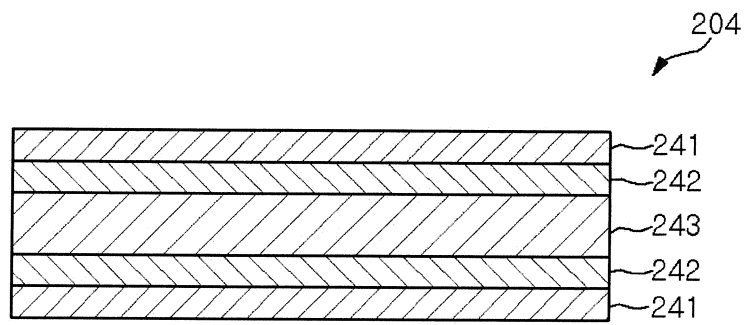


FIG.3

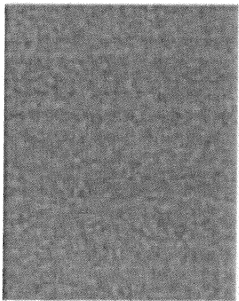
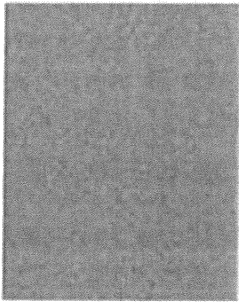
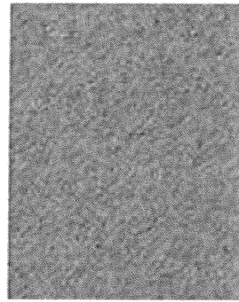
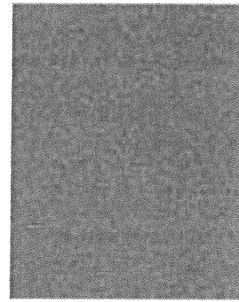
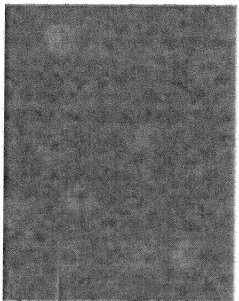
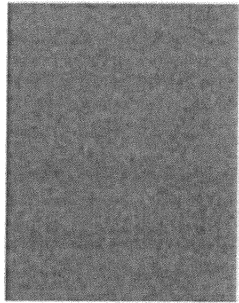
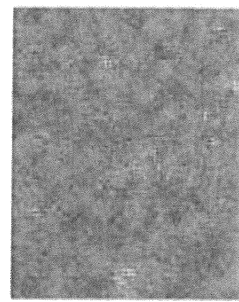
	TiN	LOW OXYGEN CONCENTRATION TION (33~38at.%)	INTERMEDIATE OXYGEN CONCENTRATION TION (46at.%)	HIGH OXYGEN CONCENTRATION TION (55at.%)
	HARDLY CHANGED	HARDLY CHANGED	CORRODED	FILM LOST
OPTICAL MICROSCOPE x50				
				N/A

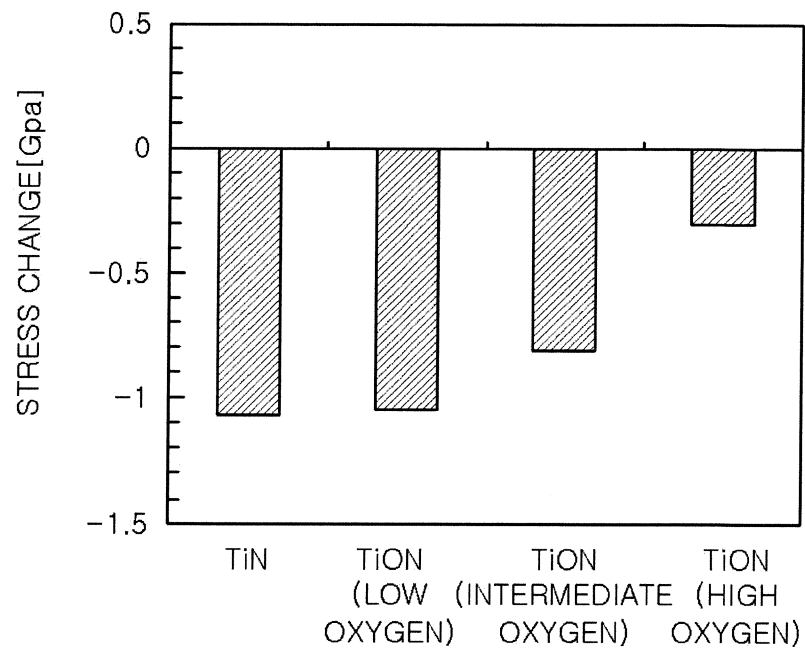
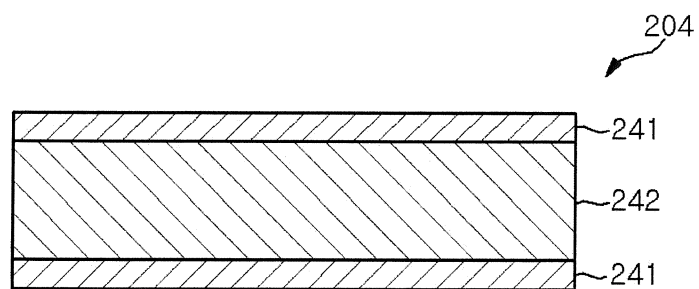
FIG. 4*FIG. 5*

FIG. 6

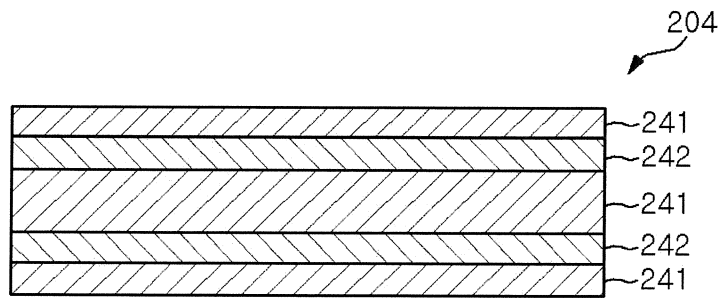


FIG. 7

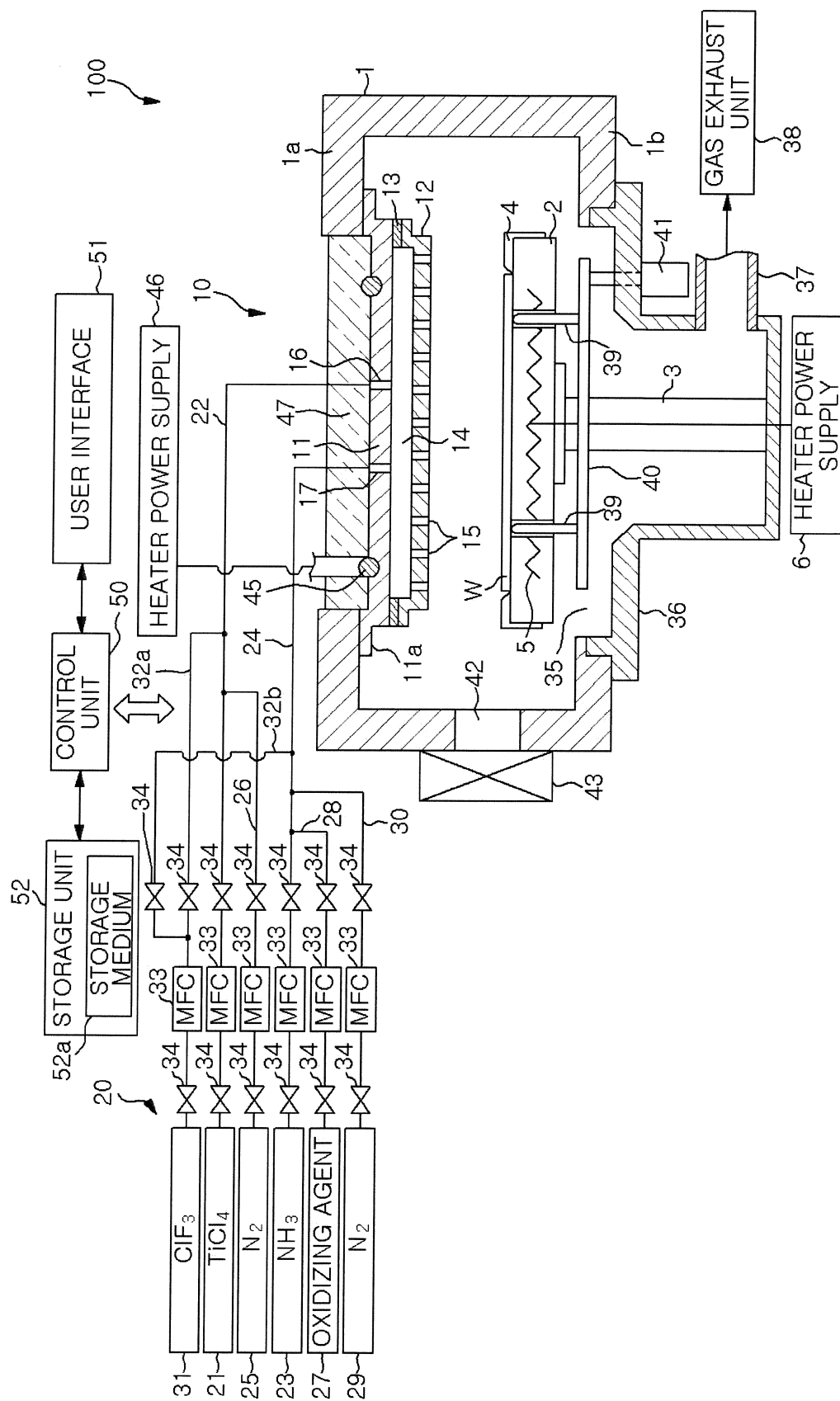


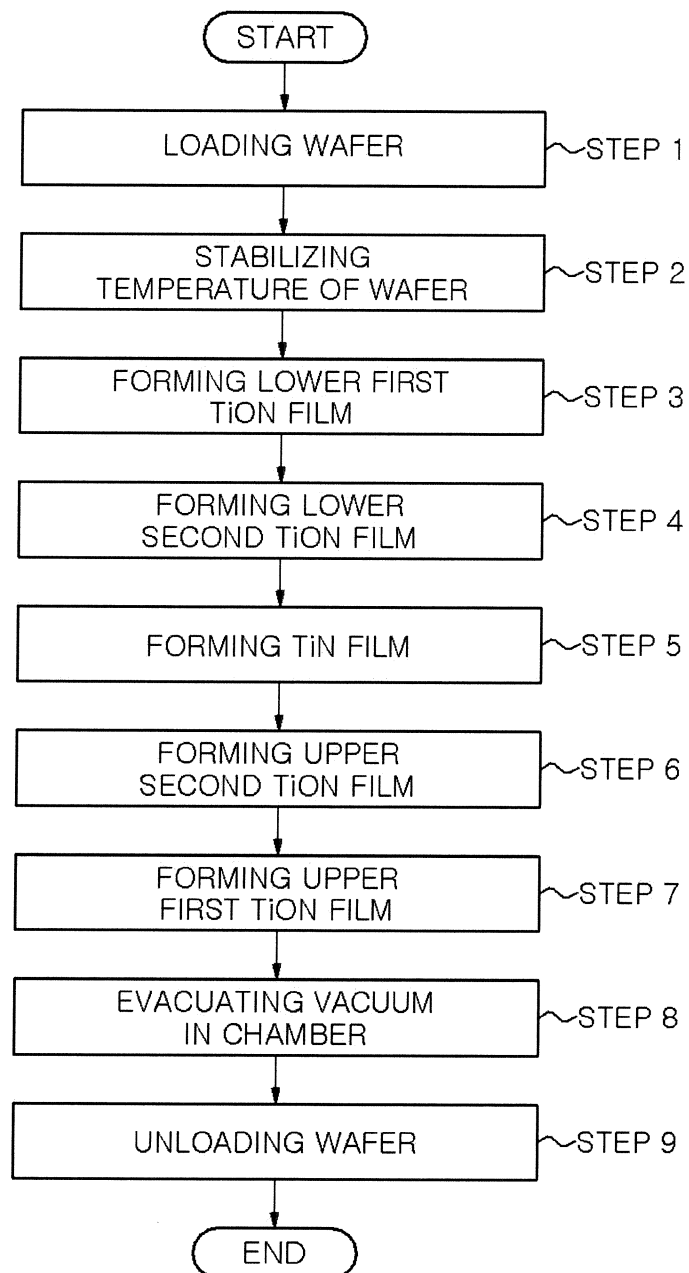
FIG. 8

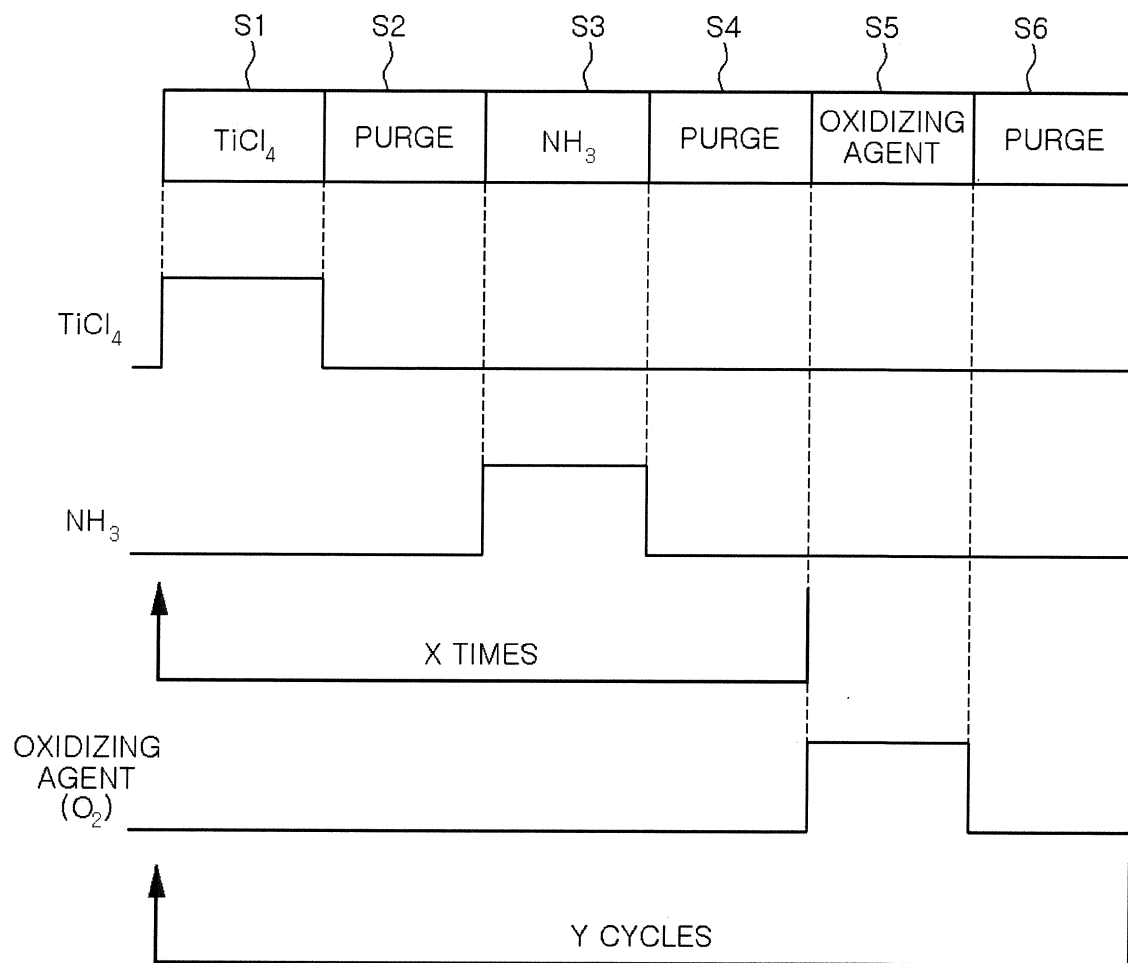
FIG. 9

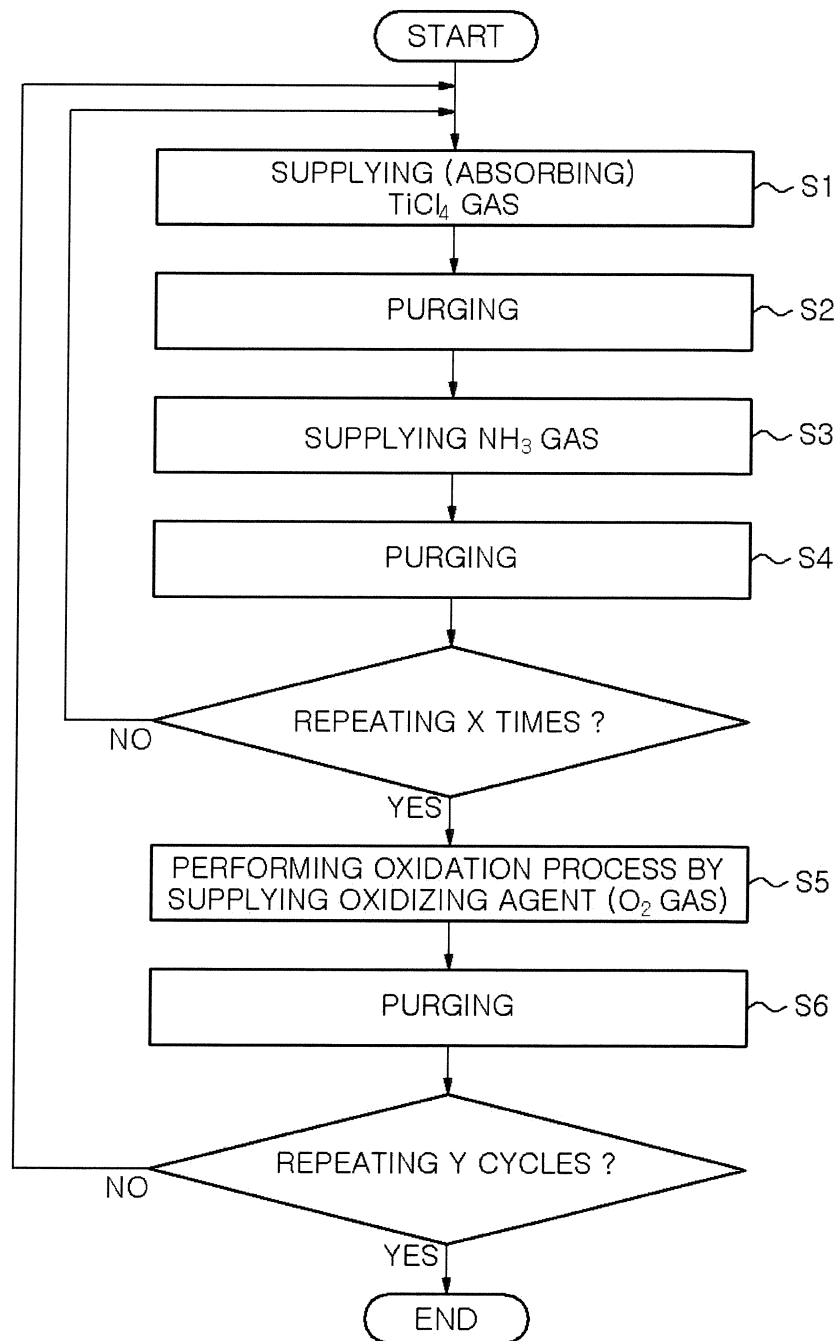
FIG. 10

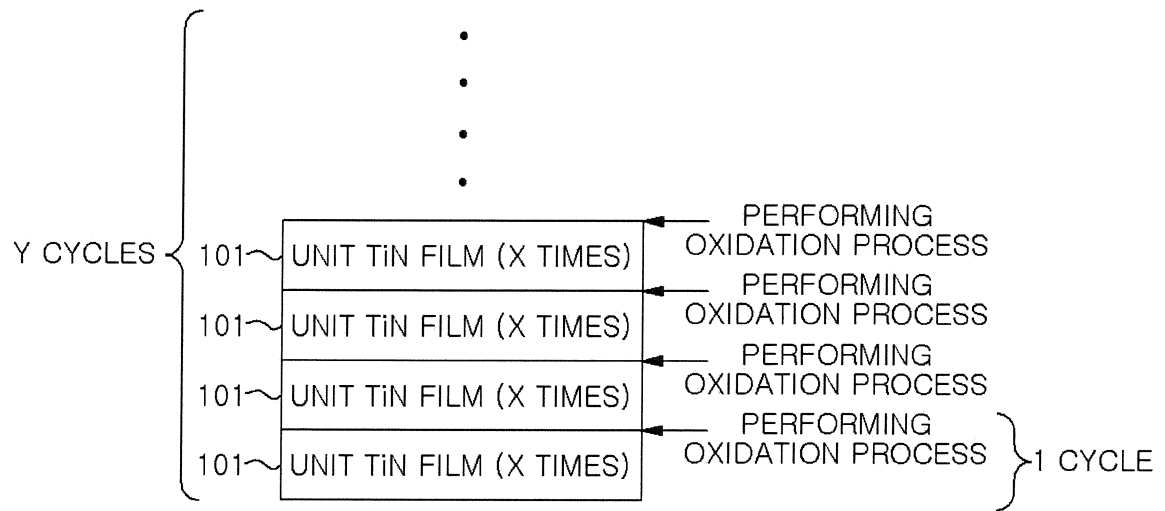
FIG. 11

FIG. 12