

Refined process category	Gas /										
	CF ₄	C ₂ F ₆	CHF ₃	CH ₃ F ₂	C ₃ F ₈	c-C ₃ F ₈	NF ₃	SF ₆	C ₄ F ₈	C ₅ F ₈	C ₆ F ₁₀
PATTERNING/ETCHING											
Oxide etch											
1-U ₁	0.2-0.8	0.2-0.7	0.2-0.7	0.02-0.3	N/A	0.1-0.3	0.1-0.4	0.1-0.4	0.05-0.5	0.05-0.3	N/A
PCF ₁	N/A	0.05-0.5	0.01-0.8	0.05-0.1	N/A	0.01-0.3	N/A	N/A	0.02-0.4	0.02-0.4	N/A
PCF ₂	N/A	N/A	N/A	N/A	N/A	0.01-0.3	N/A	N/A	0.02-0.3	0.02-0.3	N/A
PCF ₃	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Nitride etch											
1-U ₁	0.2-0.8	0.2-0.7	0.1-0.7	0.02-0.3	N/A	0.05-0.3	0.1-0.4	0.1-0.4	0.05-0.2	0.05-0.3	N/A
PCF ₁	N/A	0.05-0.5	0.01-0.8	0.05-0.1	N/A	0.02-0.3	N/A	N/A	0.02-0.4	0.02-0.4	N/A
PCF ₂	N/A	N/A	N/A	N/A	N/A	0.005-0.3	N/A	N/A	0.02-0.3	0.02-0.3	N/A
PCF ₃	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Silicon etch											
1-U ₁	0.2-0.8	0.2-0.7	0.2-0.7	0.02-0.3	N/A	0.1-0.3	0.1-0.4	0.1-0.4	0.05-0.2	0.05-0.3	N/A
PCF ₁	N/A	0.05-0.5	0.01-0.8	0.05-0.1	N/A	0.01-0.3	N/A	N/A	0.02-0.4	0.02-0.4	N/A
PCF ₂	N/A	N/A	N/A	N/A	N/A	0.01-0.3	N/A	N/A	0.02-0.3	0.02-0.3	N/A
PCF ₃	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Metal etch											
1-U ₁	0.2-0.8	0.2-0.7	0.2-0.7	0.02-0.3	N/A	0.1-0.3	0.1-0.4	0.1-0.4	0.05-0.2	0.05-0.3	N/A
PCF ₁	N/A	0.05-0.5	0.01-0.8	0.05-0.1	N/A	0.01-0.3	N/A	N/A	0.02-0.4	0.02-0.4	N/A
PCF ₂	N/A	N/A	N/A	N/A	N/A	0.01-0.3	N/A	N/A	0.02-0.3	0.02-0.3	N/A
PCF ₃	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
CHAMBER CLEANING											
In situ plasma cleaning											
1-U ₁	0.8-0.95	0.4-0.8	N/A	N/A	0.2-0.6	0.05-0.3	0.05-0.2	N/A	N/A	0.05-0.2	0.05-0.2
PCF ₁	N/A	0.05-0.2	N/A	N/A	0.05-0.2	0.05-0.2	0.05-0.1	N/A	N/A	0.05-0.2	0.05-0.2
PCF ₂	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
PCF ₃	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.02-0.08
Remote plasma cleaning											
1-U ₁	N/A	N/A	N/A	N/A	N/A	N/A	0.005-0.03	N/A	N/A	N/A	N/A
PCF ₁	N/A	N/A	N/A	N/A	N/A	N/A	0.0001-0.2	N/A	N/A	N/A	N/A
PCF ₂	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
PCF ₃	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
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	CF ₄	C ₂ F ₆	CHF ₃	CH ₃ F ₂	C ₃ F ₈	c-C ₃ F ₈	NF ₃	SF ₆	C ₄ F ₈	C ₅ F ₈	C ₆ F ₁₀
In situ thermal cleaning											
1-U ₁	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
PCF ₁	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
PCF ₂	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
PCF ₃	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
WAFER CLEANING											
Bevel cleaning											
1-U ₁	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
PCF ₁	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
PCF ₂	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
PCF ₃	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Ashing											
1-U ₁	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
PCF ₁	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
PCF ₂	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
PCF ₃	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A