

Process		Bi-layer Process	
		LOR 20B	S1813
Dehydration Bake (hot plate)	temp (°C)	200	
	time (min)	5	
Spin coating LOR 20B	speed (rpm)	300	
	time (s)	5	
	speed (rpm)	3000	
	acceleration (rpm/s)	5000	
	time (s)	45	
Soft-bake (hotplate)	temp (°C)	185	
	time (s)	300	
Spin coating S1813	speed (rpm)		3000
	acceleration (rpm/s)		5000
	time (s)		30
Soft-bake (hotplate)	temp (°C)		115
	time (s)		120
Expose (12mW/cm ²)	mode		HC
	time (s)		6
Develop 1	developer		351 Dev:H2O
	developer: di water ratio		1:5
	time (sec) (approx.)		30
Rinse in DI water	time (min)		2
Bake (hot plate)	temp (°C)		125
	time (s)		120
Develop 2	developer	AZ400K: DI H2O	
	developer: di water ratio	1:4	
	time (sec) (approx.)	200-220	

NB:

1. SC: Soft Contact; HC: Hard Contact; VC: Vacuum Contact; LVC: Low Vacuum Contact
2. Thickness of LOR 20B is about 1.7 μ m; thickness of S1813 is about 1.4 μ m.
3. Development of LOR 20B is accomplished in a basic water solution (AZ 400K)
4. Develop 1 develops through S1813. Develop 2 develops through LOR 20B isotropically.
5. Develop 2 time can be varied to increase/decrease undercut. Also LOR 20B softbake temp is used to control the undercut etch rate. Higher softbake temp leads to lower undercut rate.
6. This process was used to lift-off 1000 \AA Au/100 \AA Ti with minimum feature size of 10 μ m.
7. LOR 20B does not dissolve well in acetone. Use 1165 heated to 80°C max. Remove wafer into a new stripper bath after most metal has been lifted off. Rinse in AMI before water rinse. Final O2 Clean can help.
8. These are results using a bare Silicon substrate. Films on substrates and/or use of other types of substrates may affect the exposure and/or development time. Adjust as needed.
9. Use of this process data should act as a guide to developing and/or refining your process rather than being adopted as is.