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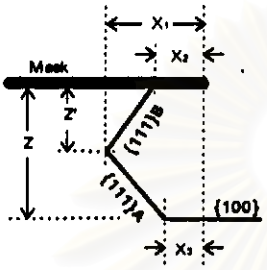
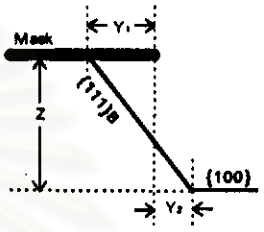
APPENDIX

Cross-sectional etched profile of GaAs by various etchants



(011) CROSS SECTION



(01$\bar{1}$) CROSS SECTION

ACID	VOLUME RATIO *	CONCENTRATION (mol / l)		RATIO OF DIMESION TO ETCH DEPTH			ETCH RATE (100) (um / min)	CROSS-SECTIONAL PROFILES	
		ACID	H_2O_2	Z'/ Z	X_1/ Z	Y_1/ Z		(011) SECTION	(01$\bar{1}$) SECTION
H_3PO_4	1 : 8 : 1	2.1	8.0	0.76	0.86	0.48	7.0		
(85%)	1 : 8 : 80	0.23	0.90	0.45	0.95	0.64	0.48		
	1 : 8 : 40	0.42	1.6	0.53	0.90	0.61	0.84		
	1 : 4 : 44	0.42	0.8	0.52	0.89	0.70	0.33		
	1 : 16 : 32	0.42	3.3	0.65	0.68	0.57	1.7		
H_2SO_4	1 : 8 : 1	1.8	8.0	0.84	0.85	X	12.5		-
(96%)	1 : 8 : 80	0.20	0.90	0.58	0.88	0.58	0.60		
	1 : 8 : 40	0.36	1.6	0.70	0.92	0.52	1.41		
	1 : 4 : 44	0.36	0.82	0.68	0.99	0.59	0.59		
	1 : 16 : 32	0.36	3.3	0.77	0.92	0.51	2.94		
NH_4OH	1 : 1 : 15	1.5	0.59	-	0.82	0.30	1.38		
(30%)	3 : 1 : 15	4.0	0.53	-	0.73	0.31	1.63		
	5 : 1 : 15	6.1	0.48	-	0.88	0.29	1.38		

* ACID (CONC.) : H_2O_2(30%) : H_2O

LIST OF PUBLICATION

1. Kridsada P., Suwat S., Somchai R., Tara C., and Somsak P. **The study of GaAs chemically-etched pattern.** *Proceeding of the 19th conference on electrical engineering, Khon Kaen University* (7-8 November 1996): EL142-EL147.

BIOGRAPHY

Kridsada Pornpitakpong was born on the first Thursday of September, in a year which February had 29 days, at a hospital in Bangkok. Completed secondary school from Wat Suthiwararam and undergraduate degree from Department of Electrical Engineering, Faculty of Engineering, Chulalongkorn University. He worked as a test engineer in a semiconductor plant before returning to study in graduate degree at Semiconductor Device Research and Laboratory (SDRL), Chulalongkorn University.