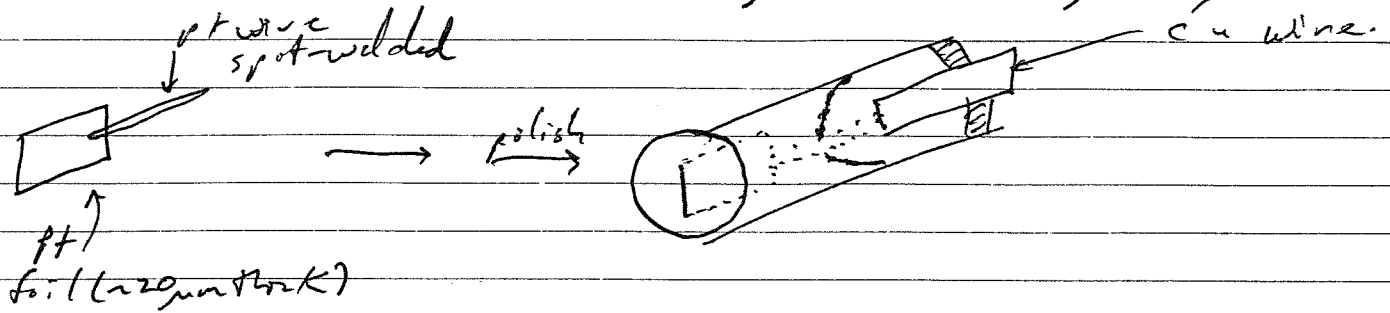
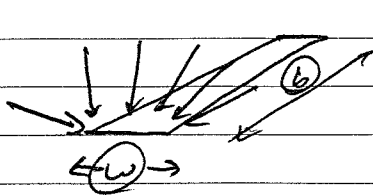
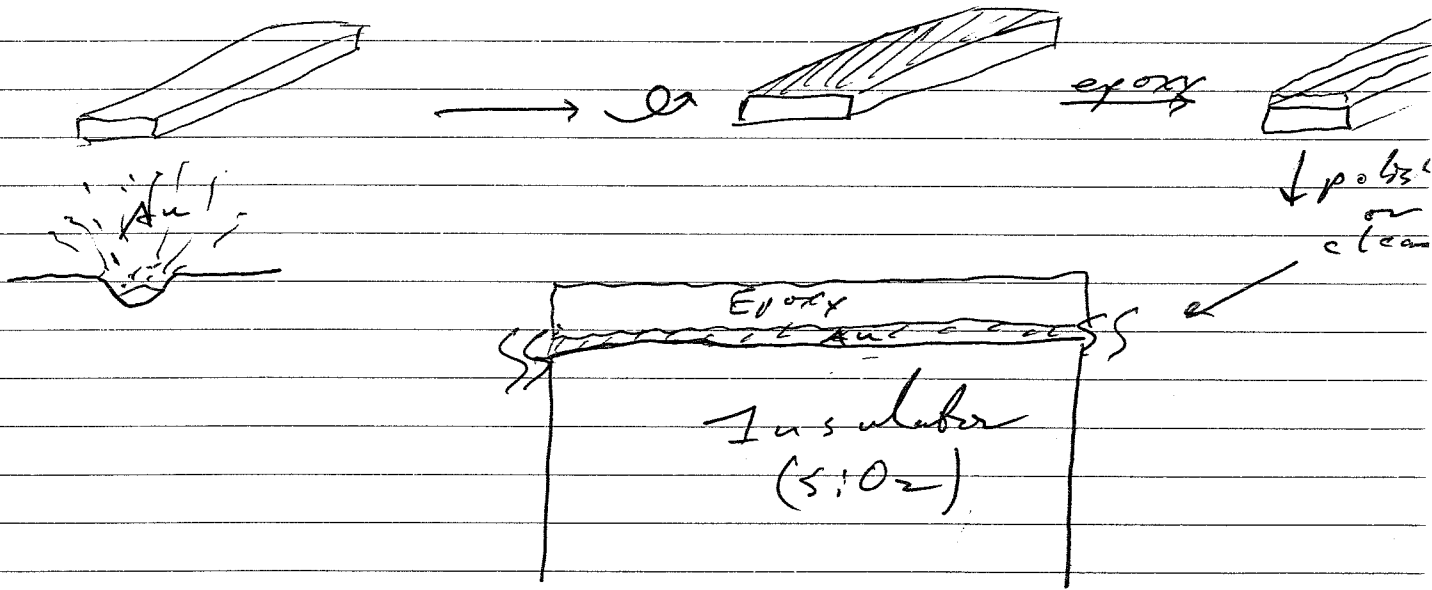


# Band Electrodes - Construction 13 of

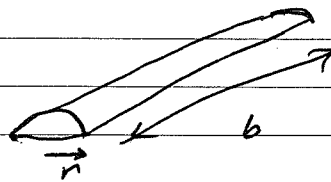
① Seal thin foil in glass or epoxy



② Evaporated metal film -



$$A_{band} = w \cdot b$$



$$A_{hemis} = \pi r b$$

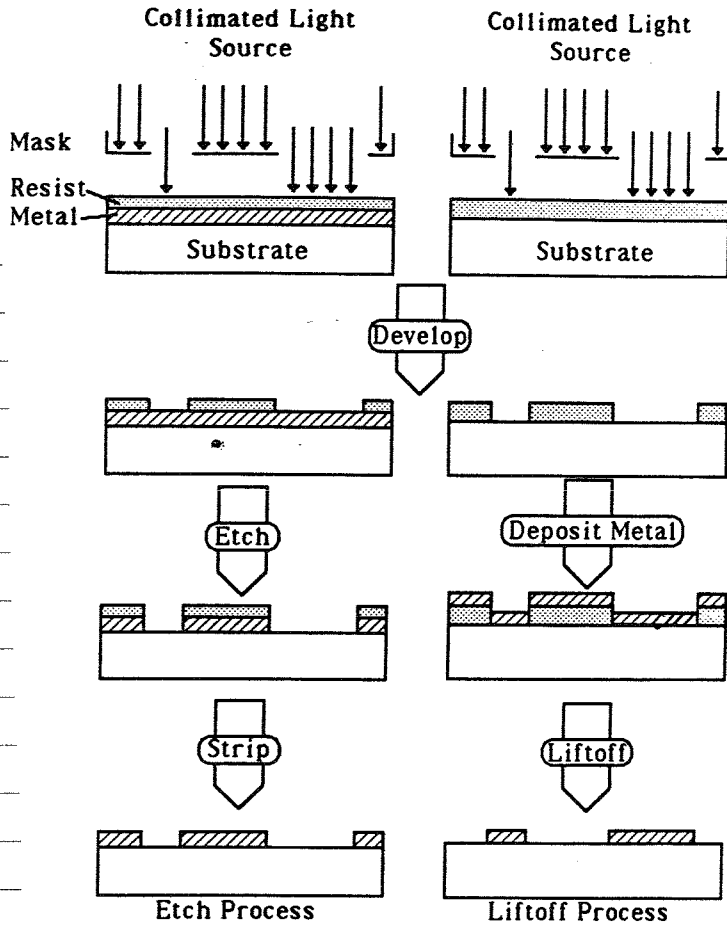
so, 
$$t = \frac{2\pi b n F C_0 D_0}{\ln(4Dt/r^2)}$$

$$r = \frac{w}{\pi}$$

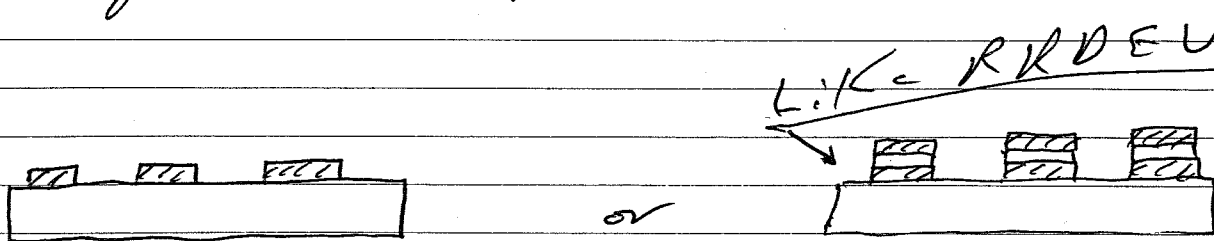
$$t = \frac{RT}{nFV}$$

Parallel Microband, too!  $\rightarrow [RRDEU]$

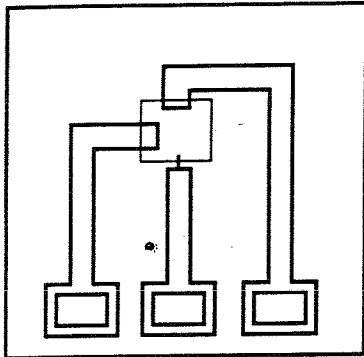
③ Li Photoresist



This allows sub-micron sized features to be produced. Insulation of metal or other conductors using  $\text{Si}_3\text{N}_4$  or photo resist.

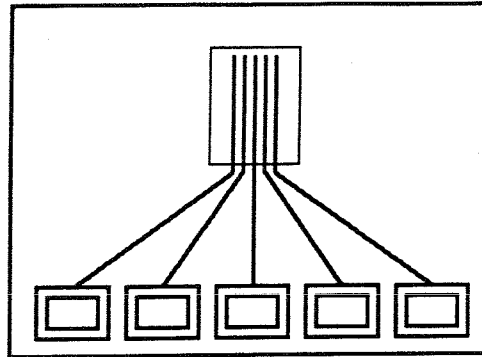


a. Microsquare

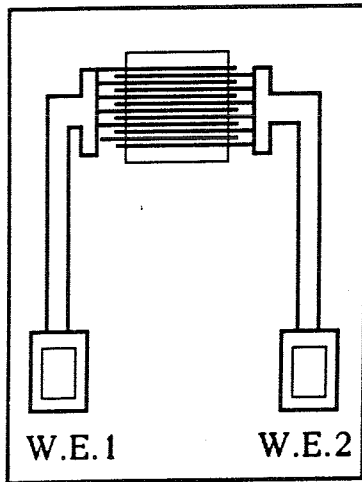


REF W.E. AUX

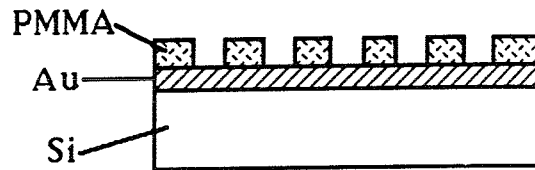
b. Multiple Parallel Bands



c. Interdigitated Array



d. Microhole Array



Holes are developed in poly(methylmethacrylate) by  $e^-$  beam lithography

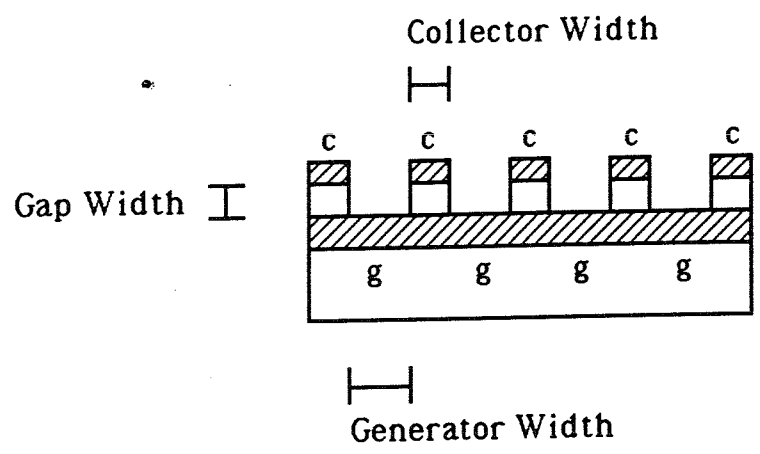




Niwa  
Collection Efficiency

Stacked IDA:

Ferrocene in  $\text{Et}_4\text{NPF}_6$  / Acetonitrile



$W_{\text{gen}}$ ( $\mu\text{m}$ )	$W_{\text{coll}}$ ( $\mu\text{m}$ )	$W_{\text{gap}}$ ( $\mu\text{m}$ )	#pairs	$\phi_{\text{ss}}$
10	5	0.5	50	97.6%
5	5	0.5	100	99.5%
3	5	0.5	100	99.5%
3	2	0.5	100	100.0%