

Material : Commercial Pure Copper

Method No. : D01

Results

Since it is a soft material, it is recommended to use short times during mechanical preparation. By using polarized light, the oxide inclusions are easily visible. Twins are typical in annealed microstructure.



Commercial Pure Cooper, Brightfield Etching: $50ml\ H_2O + 50ml\ ammonia + 1-2\ drops\ H_2O_2$ Magnification: 180X

Preparation Method:

Cutting: Abrasive Cut-off machine with Metlab Abrasive wheel

Mounting: Mounting Press with Phenolic Powder

Mechanical Preparation: Metpol-A

Steps	Surface	Abrasive	Lubricant	Force per	Time min.	Disc Speed, rpm	Relative Rotation
1	S/C Paper Disc	180 Grit	Water	30/60	2 min. or until plane	300	Contra
2	S/C Paper Disc	400 Grit	Water	25/5	2	300	Contra
3	S/C Paper Disc	800 Grit	Water	25/5	2	300	Contra
4	S/C Paper Disc	1200 Grit	Water	25/5	2	300	Contra
5	Metlab Cloth	1μ Diamond Suspension	Blue Lube	15/3	4	150	Contra