

Chose your equipment wisely!

Metal Deposition at IITBNF

Sputtering

1. Not good for Lift off
2. Good Step Coverage
3. High Temperature Material ok.
4. Less radiation Damage
5. Plasma Damage/ Contamination
6. Alloys are doable.
7. Good for ohmic but not Schottky Diodes
8. May be porous

Evaporation - Ebeam

1. Good for lift off
2. Best Purity
3. Poor step coverage
4. High Temperature Material ok.
5. Radiation Damage Sensitive
6. Alloys are Difficult

Evaporation - Thermal

1. Good for lift off
2. Simple, Consistent, and Reliable
3. Poor step coverage
4. Limited Materials [No high temperature]
5. Alloys are difficult

Sputtering	Evaporation-Ebeam	Evaporation- Thermal
Sputter Orion [Gold C.]	4TEBE [Gold C.]	Thermal Cr/Au
Sputter ATC [Semi clean b]	6TEBE [Gold C.]	Thermal Al
Nordiko Sputter [Gold C.]	4TEBE (GaN) [clean]	In Thermal Evaporator
AMAT PVD Al [Semi clean a]	NCPRE 4TEBE [Semi clean b]	
AMAT PVD Ti [Semi clean a]	New 6TEBE [Not yet arrived]	

Notes:

1. For chosen equipment please check substrates, targets and materials allowed with access policy, from *Equipment Status* page under *Online Modules* tab on CEN website.