SPUTTERING

MANUFACTURER : Kurt J. Lesker

MODEL : CMS-18 Sputtering System

Samples

- Sample size : maximum 152 mm (6 in.)
- Temperature : ambient to 850 °C
- Wafer uniformity : 5% on 152 mm
- Sample holder: rotation up to 20 rpm, polarization RF or DC

Characteristics

- Source 1 and 2: 75 mm target with AC source
- Source 3: 75 mm target with DC source
- Source 4: strong magnet-enhanced cathode for magnetic materials
- Quick loading via loadlock
- Gas feed for reactive sputtering
- Recipes completely computer programmable
- Arcing elimination via pulsed DC sputtering
- Crystal-based thickness measurement
- Pressure: ~ 10^{-6} Torr

ROUTINE PROCESS

Deposition via sputtering

- Materials : Al, Ag, Cr, Cu, Mg, Au, Pd, Pt, Ti, W, Al_2O_3, SiO_2, MgO, ITO, $YBA_2Cu_3O_7$
- Thickness: from 10 nm to 1 µm (depending on film stress)

MATERIALS SYNTHESIS AND SURFACE FUNCTIONALIZATION