



SIRIUS™
Diffusion Furnace Systems



SYSTEM

Three quartz process tubes for up to 8" dia./156mm square processing (270x280mm dia.)

Tube Level 1 – N Type Deposition (POCl_3)

Tube Level 2 – Dry Oxidation

Tube Level 3 – P-Type Deposition (BBr_3) + Drive-In

System capabilities and details

Liquid dopant sources- POCl_3 , BBr_3 .

System Temperature Capability: 400-1100°C Temperature Repeatability: ± 1.0 , type "R" TC
18" (46cm) thermal flatzone, temperature stability full length of flatzone = $\pm 1.0^\circ\text{C}$

Mass Flow Controlled gas systems

Liquid source temperature controllers on POCl_3 and BBr_3 tube levels

Digital process and temperature controllers per tube level

HOST computer included Stainless steel scavenger per tube level

• Digital Temperature/Process Sequence Controller .

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IIT-B system



Reference diagram as given by Protemp