

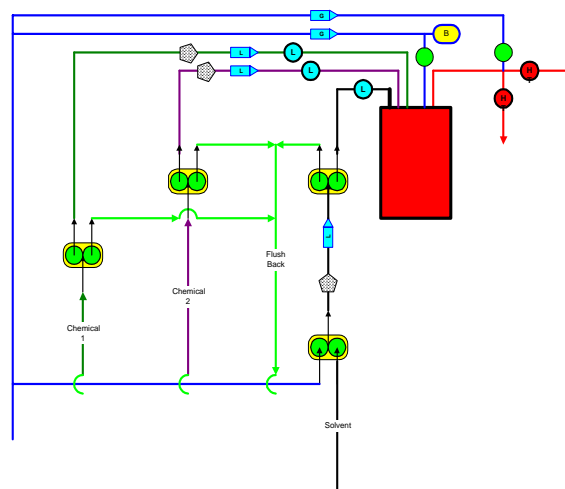
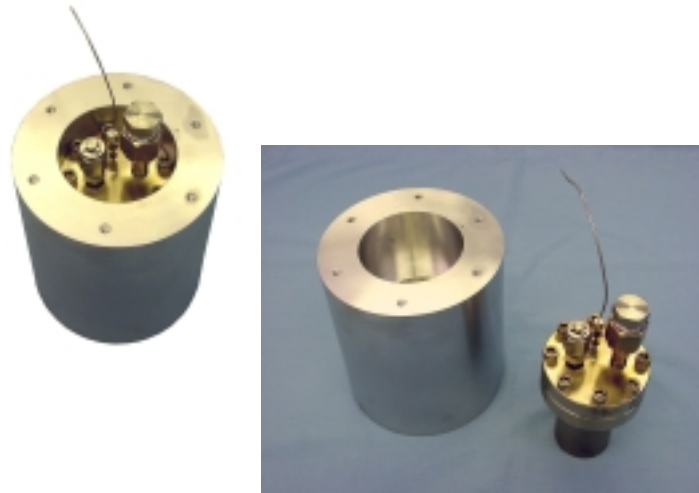
Flash Evaporators & Liquid/Vapor Delivery Systems

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MOCVD systems for complex oxides often utilize very low vapor pressure precursors that are also solids and decompose over time at temperatures that generate useful vapor pressures. One solution is to dissolve the precursor in a solvent (that is benign to the process/product) and transport such a “Cocktail” into a hot plenum where it “Flash Evaporates” and is then swiftly transported, in vapor form, into the reactor – minimizing the time at temperature and hence decomposition. Such systems can range from simple R&D arrangements to complex production units.

SMI offers a full range of Liquid Delivery-Flash Evaporation systems that can support R&D to manufacturing needs. Shown at right are the core flash evaporator, two computer interfactable monitor/control panels and a schematic of a production configured system.

SMI’s flash evaporator features inert all metal constructions, an open easily cleaned architecture, clean room compatibility and operability through >100ml/min flows and through 340°C vaporization temperatures. Versions with nebulizer liquid inlets are also available.



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