

PRODUCT SPEC GUIDE : ALD

PROBLEM

- < Traditional quartz crystal microbalances (QCM's) do not work in ALD systems because the crystal surface must be at the decomposition temperature of the gaseous precursors
- < Traditional quartz crystal microbalances (QCM's) do not work in ALD systems because the sensor head does not have temperature measurement or control

SOLUTION

- < Heated sensors with integral temperature measurement and specially constructed high temperature quartz crystals can be operated up to 500C, duplicating ALD conditions identical to the substrates being coated
- < Waterless unheated sensors that can withstand up to 500C
- < Temperature controlling and monitoring instrumentation

RECOMMENDED PRODUCTS

- < RC™ Quartz crystals (up to 250C)
- < SuperQuartz™ (up to 1000C)
- < Heated 100C - 500C Sensor Heads (Tempe™)
- < Eon™ Monitor

PROBLEM

- < Low temperature ALD (<150C) cannot be accomplished with quartz due to high noise

SOLUTION

- < Our patented, noise resistant crystals that can be operated at 200C with or without an integral heater in the sensor head, allowing real-time ALD measurement
- < Temperature compensating crystal instrumentation eliminate rate noise

RECOMMENDED PRODUCTS

- < RC™ quartz crystals or SuperQuartz
- < Tempe™ Sensor Head
- < Eon™ Monitor

