AERO ENGINE MATERIAL CHARACTERIZATION FACILITIES

Faculty –in- charge : Dr. B.T.N. Sridhar

Instron make UTM type 3367 for testing materials for aero engines and airframes (-70 to 250^{o}C) Capacity 3 ton.

Weiss Technik make Climatic Chamber for studying environmental effects on materials for aero engines and airframes. Capacity 990 lr.

100 kW Plasma arcjet for thermal erosion Studies of aerospace materials (Max heat Flux is 10 MW/m^{2})

Dilatometer of NETZSCH make for thermal expansion studies of gas turbine blade and other aero engine & airframe materials up to 2000^{o}C

NETZSCH make simultaneous thermal analyzer for thermal analysis studies of aerospace materials up to 1400^{o}C.

Netzsch make laser flash apparatus for measurement of thermal diffusivity of aerospace materials including gas turbine TBC. Measurements can be made up to 2000^{o}C

CEAST make Instrumented Impact Tester for determining impact strength of materials for aero engines and airframes.

01dB Metravib make Dynamic Mechanical Analyzer 50N. Temperature range -120^{o}C to 600^{o}C. DM analysis Is done for a variety of aerospace materials used for aero engines, airframes and seals.