

Sophisticated Instrumentation Centre for Applied Research and Testing (SICART)

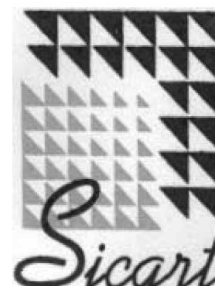
(Sponsored by Department of Science & Technology, Govt of India, New Delhi)
Sardar Patel Centre for Science & Technology

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For Students, Researchers, R&D Centers and Industries:

Sophisticated Instrumentation Centre for Applied Research and Testing (SICART), sponsored by Department of Science and Technology, Government of India, New Delhi is a state-of-the-art instrumentation centre providing services at reasonable charges to industries, academic institutes and R&D centres since 2000. SICART is involved in testing and analysis of samples, providing solutions for specific R&D problems, conducting short term courses, consultancy and training and collaborative research programmes. In the last 14 years of its existence, SICART's dedicated and trained staff has provided valuable services to a large number of students, researchers and industries all over India and abroad.

The instruments available are:

- Nova Nano FEG-SEM 450 with EDAX (Mapping System) facility to study sample size, shape, surface features at nano scale level along with elemental analysis.
- Philips Tecnai 20 TEM (20–200 kV) to look at the finer details of particulate and sectioned samples up to one million magnification.
- 400 MHz FT-NMR Spectrometer for structural identification of organic, inorganic and polymer samples using liquid and solid Multi Nuclei Probe.
- LC–MS–MS (ion Trape and Triple Quadrapole) to identify drugs, pesticides, proteins and non-volatile compounds for applications in pharmaceuticals, food safety, clinical research, forensics, etc.
- WD–XRF to determine the complete composition of both known and unknown materials from ppm level to 100% level.
- X-ray diffractometer to analyse pharmaceutical drugs, polymers, crystal structure.
- Inductively coupled plasma spectrometer (ICP–OES) for estimation of precious metals at low level and heavy metals at sub ppm level.
- Particle Size Analyser to find the particle size and distribution range from 0.1 to 875 μm .
- Thermal Analysis System (DSC, TGA) for measurement of melting behaviour, Tg temperature, mass loss, decomposition temperature of drugs, polymers, resins, waxes, pigments, etc.

SICART is also equipped with: UV–VIS–NIR spectrometer, GC (with head space) and GC-MS, HPLC, GPC, HPTLC, C–H–N–S Elemental Analyser, Universal Testing Machine (UTM), Mercury Porosimeter, Gas Permeability Tester, Ion Chromatography (IC) and Liquid Nitrogen Plant. Analysis of Total Organic Content, Waste water, Solid waste, Soils, Heavy metals, Air quality, etc. is also carried out at SICART.

For more information visit our website: www.sicart.res.in