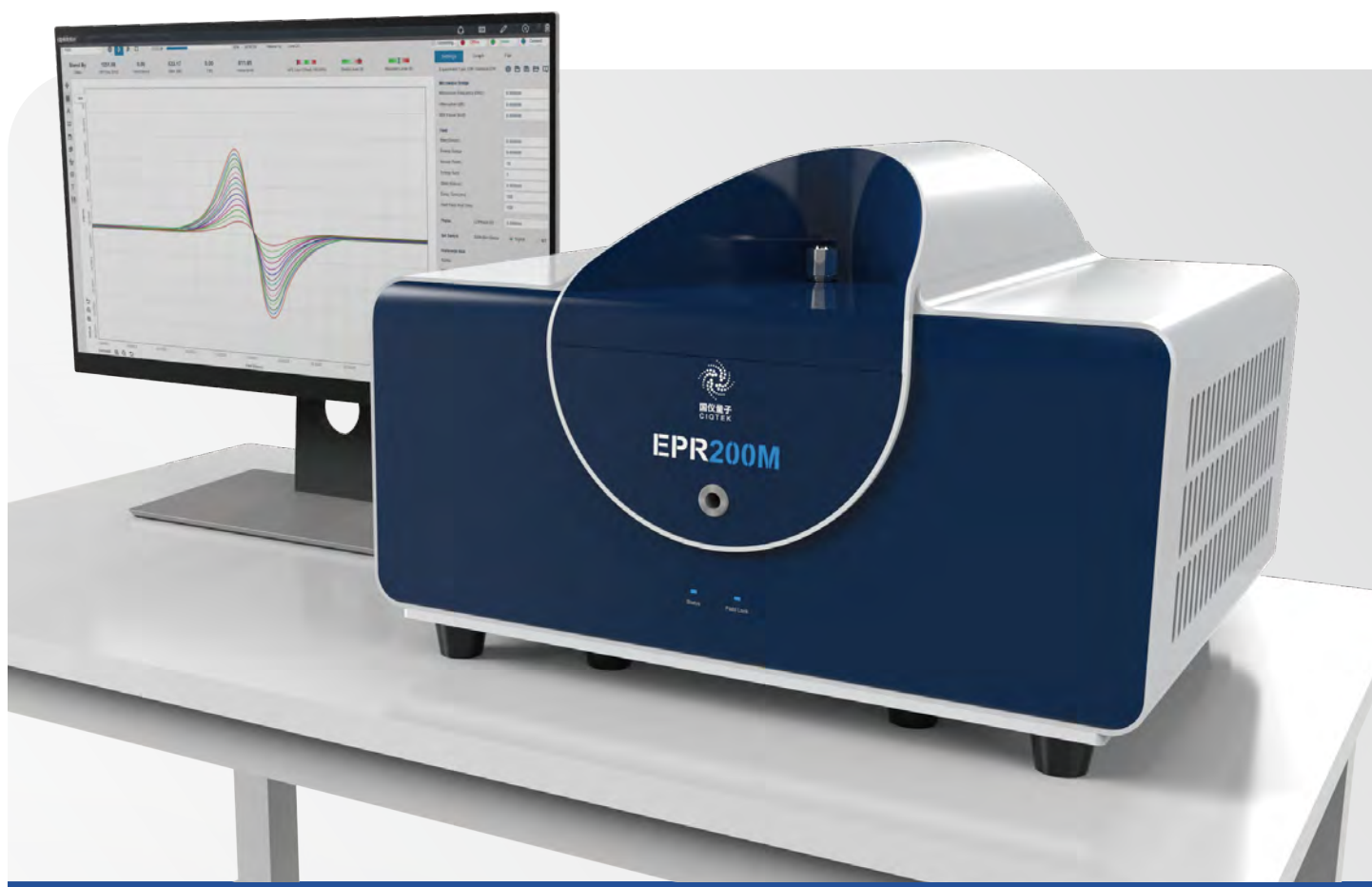




Electron Paramagnetic Resonance Spectrometer

Desktop Electron Paramagnetic Resonance spectrometer EPR200M

Product Introduction

The EPR200M is a newly designed and engineered desktop electron paramagnetic resonance spectrometer. On the basis of dedicating to high sensitivity and high stability, it provides a super cost-effective, low-maintenance, simple and friendly experience for every scientific researchers or industrial users who need EPR test.

Product Features



High sensitivity, accuracy, stability



Support manual and automatic tuning



Integrated instrument control software, data software and spectrum fitting software



Customized software package: application for radiation dosimetry



Standard sample for accurate g measurement and quantitative EPR measurement



Multifunctional accessories: low temperature measurement, angle device, light

Small size, unique design

Simple and fast sample preparation and maintenance

Fast and accurate data collection and analysis

Friendly software interface

Strong technical support and after-sales team



Product Parameters

Parameter	Value
Frequency Range	9.2~9.9 GHz
Modulation Field Amplitude	10 Gauss
Magnetic Field Range	- 100~6500 Gauss (Support zero acrossing)
Uniformity of Magnetic Field in Sample Area	Better than 50mG
Detection SN ratio	Better than 600:1
Absolute spin Number Sensitivity	5×10^9 spins/(G $\cdot\sqrt{\text{Hz}}$)
In-situ Illumination	Support
Variable Temperature System	100-475 K (optional)
Auto Tuning	Support
Scan Speed	10ms/P~5s/P
g-value Standard Sample	Internal
Quantitative EPR Test	Internal standard sample Mn
Microwave Power Range	1 uW~100 mW
Modulation Field Frequency	10 kHz / 100 kHz
Weight	50 kg
Size	530 mm×415 mm×350 mm

Product Applications

Electron paramagnetic resonance is the only spectrometer technique that can directly detect and study unpaired electrons. Unpaired electrons are widely distributed, such as isolated single atoms, conductors, magnetic molecules, transition metal ions, rare Earth ions, ion clusters, doping materials, defective materials, biological free radicals, metal proteins, etc.; many substances do not contain themselves unpaired electrons will produce unpaired electrons after being excited by light. Therefore, electron paramagnetic resonance technology is widely used in physics, chemistry, biology, materials, industry and other fields.

Environment Science: Environmental monitoring such as air pollution, sewage treatment, transition metal heavy metals, EPRFs.

Chemistry: Coordination compound structure research, catalytic reaction, free radical detection, reactive oxygen species detection, chemical reaction kinetics, etc.

Physics & Material: Single crystal defects, magnetic material properties, semiconductor conductive electrons, solar cell, materials, polymer properties, fiber defects, etc.

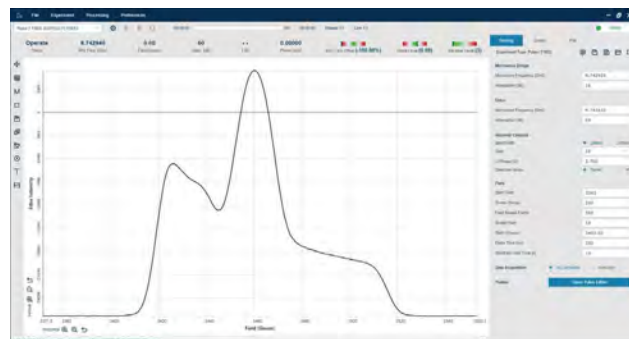
Biomedical: Antioxidant characterization, nitrogen oxide detection, reactive oxygen species ROS, occupational disease protection research, nuclear radiation emergency medical rescue diagnostic classification, cancer chemotherapy and radiation related research.

Industry: Coating aging research, cosmetic free radical protection coefficient, diamond defect identification, tobacco filter efficiency, free matrix controlling petrochemical industry.

Food Science: Agricultural product irradiation dose, beer flavor preservation period, edible oil rancidity test, alanine dosimeter, food and beverage antioxidant.

Product Software : EPR-PRO

EPR-PRO is the operating software of EPR Spectrometer, which provides fast experimental operation procedures and scientific data analysis functions.



Software Features

01 Modern style, simple and elegant interface

02 Separate data analysis software for offline use

03 Scientific data analysis function

04 Automatic experiment report generation

Accessories



Liquid nitrogen variable temperature



Liquid nitrogen dewar



Light system



Standard sample



4 mm outer diameter sample tube, flat cell



Automatic corner device