

Article Overview

Large-scale spectrometers range from \$50,000 for basic models to over \$2,500,000 for high-end, high-resolution systems, depending on type, configuration, and application.

Mass Spectrometers

Mass spectrometers vary widely in price based on technology and resolution:

- o Quadrupole MS: \$50,000-\$150,000; suitable for routine analysis in environmental and pharmaceutical labs .
- o Ion Trap MS: \$20,000-\$500,000; versatile for structural analysis and drug discovery .
- o Time-of-Flight (TOF) MS: \$100,000-\$500,000+; high resolution for proteomics and metabolomics .
- o Orbitrap MS: \$400,000-\$1,000,000+; advanced life sciences research with superior accuracy .
- o Fourier Transform MS: \$150,000-\$2,500,000; ultra-high resolution for complex molecular studies . Used instruments can be significantly cheaper, e.g., MALDI-TOF \$10,000-\$500,000, Q-TOF \$12,500-\$500,000, and Triple Quad \$15,000-\$250,000 .

Optical and Raman Spectrometers

Preconfigured optical and Raman systems are available for specialized applications:

- o LED Measurement Systems: Include VIS spectrometers, integrating spheres, and NIST-traceable calibration; prices vary by configuration .
- o Solar Measurement Systems: Cover 300-1100 nm with deep UV options; include fiber optics, cosine receptors, and calibration certificates .
- o Display SpectroRadiometers: For monitor and display analysis; include spectrometers, fiber optics, and radiance calibration .
- o Fluorescence Systems: For steady-state liquid sample analysis; prices depend on excitation sources and detectors .
- o Raman Spectrometers (785 nm): Complete systems with lasers, cooled spectrometers, probes, vials, and SERS substrates; suitable for liquid, solid, or powder samples .

UV/VIS and Laboratory Spectrophotometers

- o UV/VIS Spectrophotometers: Prices vary by resolution, wavelength range, and software packages; suitable for protein analysis, nucleic acid quantification, and environmental monitoring .
- o Luminometers and Custom Configurations: Can be tailored for specific research protocols, with pricing dependent on accessories and software integration .

Price List for Large-Scale Spectrometers

Additional Considerations

- o Operational Costs: Consumables, calibration, software licenses, and service contracts can add significantly to total investment .
- o Leasing Options: Some labs opt to lease high-end instruments to reduce upfront costs while maintaining access to advanced technology .
- o Customization: Many suppliers offer modular systems, allowing labs to scale spectrometer capabilities according to research needs . In summary, budgeting for large-scale spectrometers requires considering both the base instrument cost and ongoing operational expenses, with prices ranging from tens of thousands for basic systems to several million dollars for high-resolution, high-throughput instruments.

Edmund Optics offers a range of optical spectrometers and compatible accessories. Our selection includes gas cells, reflectance

Wondering how much a spectrophotometer costs? Explore pricing ranges, key features, and what to expect when

Discover the best Lab Spectrometers in Best Sellers. Find the top 100 most popular items in Amazon Industrial & Scientific Best Sellers.

Instrument Type Obviously the first factor we'll cover is instrument type, which plays a significant role in pricing:

This buyer's guide for spectrometers provides technical background, comparison of major types, selection

Find the best price on New and Used Raman Spectrometers, Microspectrophotometers and Raman

Online shopping for Spectrometers - Spectrometry from a great selection at Industrial & Scientific Store.

Find new and used Spectroscopy instruments for sale and wanted at LabX. Buy and sell Spectroscopy equipment with classified ads.

Price includes slit, UV detector upgrade, detector lens, integrated order sorting filters, composite grating mounted in large optical

Mass spectrometry is an invaluable tool across numerous scientific disciplines, and understanding its pricing and

Discover the top-rated NMR spectrometers of 2026 for research and industry. Compare high

Price List for Large-Scale Spectrometers

Examples of mass spectrometer prices: Basic benchtop mass spectrometers: These

Enhance your lab with top spectrophotometers like Eppendorf Biophotometer and Hamamatsu L6637. Unlock precision

Wondering how much a chromatography system costs? Discover pricing ranges, key technologies, and smart

Buy and sell, new and used infrared spectrophotometers. LabX is your online marketplace for new and

Mass Spectrometers Spectrometers that detect, identify, and quantify molecules within samples based on molecular mass-to-charge

Web: <https://www.kremgroup.co.za>

