

Service rates for micro-Raman, infrared, and Mössbauer spectroscopy Laboratories

The service rates for measurements in the micro-Raman and Infrared spectroscopy laboratories are calculated on a per hour basis. Due to the time and effort needed for startup and calibration, a one hour setup time will be charged to any measurement session in addition to actual measurement time even if the session lasts less than one hour. The actual measurement time will be counted per ½ hour units.

For graduate students from the Department of Earth and Planetary Science who desire to use these two techniques for their research projects, they may choose to be trained by lab staff to operate the spectrometers. A minimum hourly rate will be calculated toward their works in the labs after they have demonstrated a satisfactory level of operating safety and skill.

Full service will be the normal working mode to meet the needs within and beyond Washington University, which includes both the sample measurement and the interpretation of spectra. Systematic study of the samples and spectra need to be handled as collaboration.

The service rate for Mössbauer spectroscopy measurements is calculated on a per sample basis because analysis times vary according to age of the source and Fe content. Depending on the Fe concentration in the sample, a minimum of 24 or 48 hrs of integration time is needed for Fe-oxides (& Fe-hydroxides), or silicates at the peak strength of the Mössbauer source. Additional integration time will be needed after the first half-life of the source. Full service is the normal working mode, which includes the sample measurement, deconvolution of spectra, and the basic assignment of Fe oxidation state and site coordination.

A. Fee Schedule for in-situ Planetary Raman Spectroscopy Laboratory (532 nm excitation wavelength)

Per hour rate	Trained User	Assisted	Full service
Inside EPSc Dept.	\$20	\$35	\$50
Inside Wash. U., other Departments			\$80
Other Universities			\$100
Outside, Commercial Use			\$150

B. Fee Schedule for Infrared Spectroscopy Laboratory (available modes: transmittance, attenuated total reflectance, total and diffuse reflectance)

Per hour rate	Trained User	Assisted	Full service
Inside EPSc Dept.	\$20	\$35	\$50
Inside Wash. U., other Departments			\$80
Other Universities			\$100
Outside, Commercial Use			\$125

C. Fee Schedule for Mössbauer Spectroscopy Laboratory (backscattering mode)

Per sample rate	Measurement only	Full service
Inside EPSc Dept.	\$150	\$300
Inside Wash. U., other Departments		\$400
Outside Wash. U., Other Universities		\$500
Outside, Commercial Use		\$600