

A Guide to Raman Spectroscopy

What Industries Is Raman Used In?

Almost every industry, in some way or another, can use Raman spectroscopy. The ease, speed, and damage-free platform allows scientists to learn more about their samples in an ideal way. Below are just a few of the booming industries that are experiencing a surge in demand for Raman spectroscopists.



Pharmaceuticals

Drug creators and manufacturers are looking for individuals capable of Raman to reveal important information about the chemicals being created and prescribed. Drug discovery and formulation are vital to this ever-growing industry.



Forensics

The identification of narcotics, the detection of counterfeits, and the analysis of materials is vital in the forensics field. Raman allows scientists to confidently uncover the truth.



Chemical Industry

A variety of companies are seeking individuals with knowledge of Raman so that the chemicals they manufacture can be analyzed. Determining the quality of mixtures and solutions is key to comprehending their reactions.

Why Do Industries Use Raman?

Raman spectroscopy delivers live results without inflicting any damage to the sample being analyzed. Oftentimes, analyzing samples with methods other than Raman can threaten the integrity of the material being studied. Raman spectroscopy offers a way to gather information without harm or significant wait time, making it an efficient means of testing. Now that this technology is becoming more widespread and affordable, it's replacing other inferior testing methods.

What Companies Use Raman?

All different types of companies use Raman spectroscopy, from well-known household names to automobile empires. Clorox, Ford, Kodak, and ExxonMobil are just a few of many industry giants that take advantage of Raman technology.

What Is an Example?

Plastic comes in many different forms, some of them safe for use and some on them not. One particular kind, polyvinyl chloride (PVC), has been banned in several countries due to its inclusion of phthalates and their negative environmental effects.¹ Raman spectroscopy allows manufacturers to instantaneously recognize if their plastic contains this component, saving them from creating or packaging goods in an unsafe material.

References

- (1) Raman Spectroscopy 101 for Plastics Identification. (2010, June 20). Retrieved from <https://knowledge.ulprospector.com/1365/pe-raman-spectroscopy-plastics-identification/>