

A Guide to Raman Spectroscopy

When Is Raman Used?

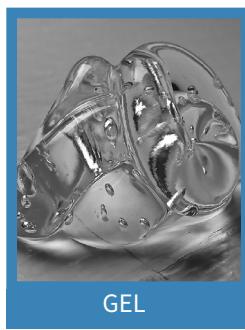
Raman spectroscopy is used whenever a company or industry needs to analyze something on a microscopic level, but needs to avoid damaging the sample being studied. Using Raman allows for vital information to be quickly and easily accessed so that chemists can gather information about the sample, both structurally and chemically.

What Type of Samples Can Be Analyzed?

The great part about using Raman spectroscopy is that a variety of sample forms can be analyzed, and with the Reva, consistency is guaranteed. Below are just a few sample forms that can be tested.



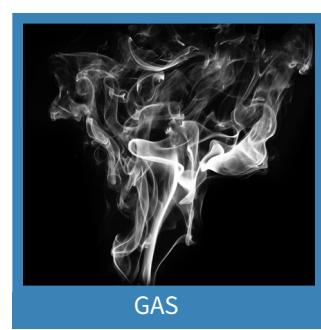
POWDER



GEL



LIQUID



GAS

Is It Really That Common for Industries to Use Raman?

Believe it or not, many products that a consumer buys has, at one point or another, been studied using Raman spectroscopy. From analyzing the cells of a cancer patient to developing effective solar panels, the utilization of Raman is used for both research and quality control.

This process has helped reveal the chemical compositions in medicines and prescriptions, from cold medicine to antibiotics. The plastic container that houses a ready-made salad has gone through this process for composition and identification purposes. The gas that a person uses to fill up their tank has been studied through Raman to ensure quality, and the diamond that's nestled within an engagement ring has had its stone checked to ensure authenticity through the very same process. Raman is a process that's only gaining popularity within a variety of industries.

If Raman Is That Important, Why Isn't It Talked About?

In the past, Raman technology was so expensive that it was hard for even the most well-known companies to afford the equipment. Now, with the advancement of the production of scientific manufacturing, Raman spectroscopy equipment is affordable without sacrificing any quality. The newfound adoption of this technology has opened up an entirely new segment of jobs, as employers are now focused on hiring Raman fluent employees.

Top colleges and universities are realizing this and adding Raman spectroscopy equipment into their labs and courses. Fordham, Columbia, Dartmouth, and Princeton are just some of the top schools that have started to train their students to develop these skills.

How Do I Move Forward With Raman?

Most schools offer some degree of training with Raman spectroscopy within undergraduate chemistry or biochemistry courses. Many of these offer laboratories and feature lab experiments that utilize Raman equipment. Colleges and universities often provide online descriptions of the courses they offer, so students can search potential schools online to determine if Raman is taught and to what extent.

If a student is interested in Raman but doesn't yet want to commit, speaking to an advisor or professor with Raman spectroscopy experience can help determine if deeper study should be pursued.