



AN 376

Identifying Contaminants Using Raman:
Organic Particles

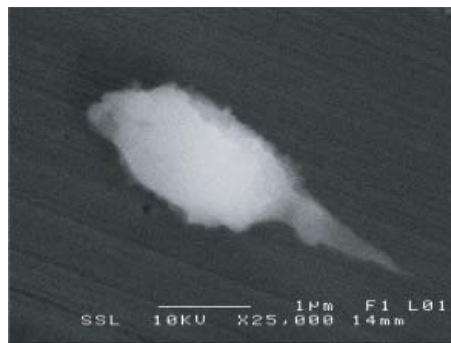
May 7, 2007 (Version 3.0)

Discussion

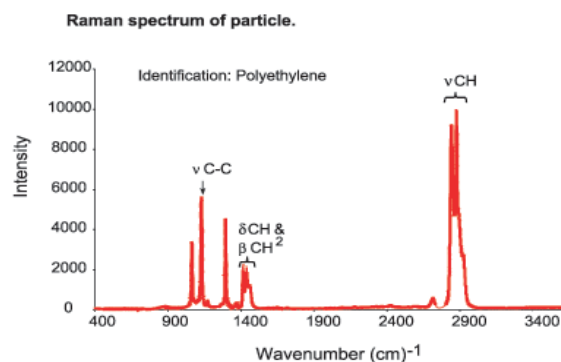
Learning the chemical composition of contaminants is important in order to determine the source of contamination. For organic particles, specific identification of the type of material is essential because there are often many possible sources present in the system.

Small organic particles (i.e., those less than 5 μm) pose particularly difficult problems because most techniques used for organic analysis cannot effectively identify samples this small. Raman spectroscopy is often the best approach to this type of problem.

In this example, a particle that was approximately 1 μm in diameter was found on a surface. Raman analysis of the sample indicated that it was composed of polyethylene.



SEM image of particle found on surface



Raman spectrum of particle

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