



AN 375

Identifying Contaminants:
White Powder on Electrical Pins

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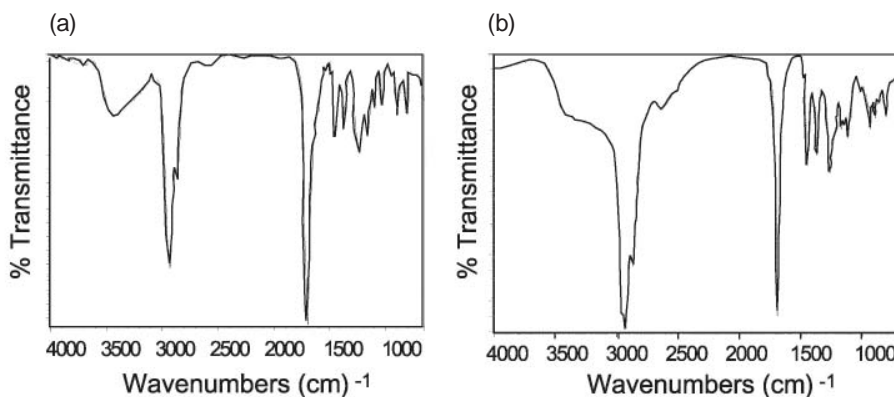
Discussion

Identifying the chemical composition of contaminants often depends on determining its chemical composition. For organic contaminants, it is particularly important to identify the specific compound that is present because there are many thousands of possibilities. Fourier Transform Infrared Spectroscopy (FTIR) is a powerful tool because it can provide fingerprint spectra that can be compared to extensive libraries of reference compounds.

In this example, a white powder was observed on electrical pins. The powder was removed and analyzed using FTIR. The spectrum of the powder matched a reference spectrum from a solder flux sample, indicating that the flux was the source of the contamination.



Photograph showing white powder contamination on pins.



FTIR spectra from the white powder (a) and a solder flux reference sample (b).

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