PHARMACEUTICAL EXCIPIENTS IDENTIFICATION WITH HANDHELD RAMAN

- Produce confident chemical ID
- Elevate quality programs

IDENTIFICATION OF EXCIPIENTS USING RAMAN ANALYSIS

It is critical and required for pharmaceutical manufacturers to have quality control procedures in place to ensure incoming raw materials are both correct and meet sufficient quality standards. Many have adopted Raman spectroscopy as an effective and efficient technique for raw material identification, in-process analysis, and final product authentication.

The new generation in handheld Raman analysis that streamlines your raw material ID workflow.

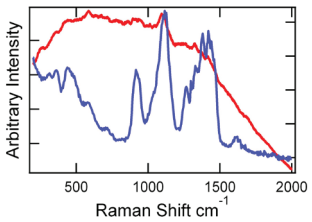

Figure 1. Sodium carboxymethyl cellulose 785nm and 1064nm

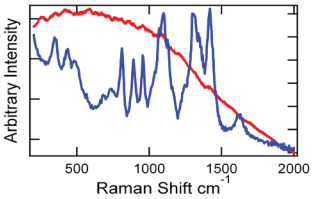

Figure 2. Alginic acid sodium salt 785nm and 1064nm

MINIMIZE SAMPLE INTERFERENCE WHILE MAXIMIZING EFFICIENCY

While analyzing excipients, fluorescence interference frequently prevents successful chemical identification and/or analysis. The Rigaku Progeny utilizes a 1064nm laser to minimize signal-blocking fluorescence. To demonstrate the advantages, four common excipients used in many pharmaceutical products were analyzed using 1064nm and 785nm analyzers (Figures 1-4). In all cases, excitation at 785nm yielded a strong fluorescence background and would be unlikely to provide any reliable information about the sample. In contrast, 1064nm spectra produced compound-specific "signature" Raman peaks used to produce confident chemical identification.

Progeny 1064nm Advanced Analysis Technology
- Increases sample throughput
- Ensures safety and efficacy of products
- Complies with 100% inspection

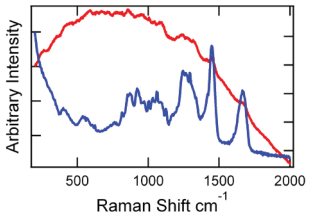

Figure 3. Gelatin 785nm and 1064nm

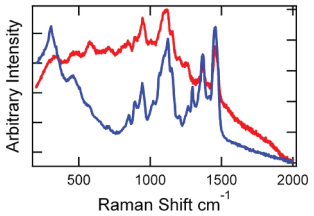

Figure 4. Hydroxyproyl methyl cellulose 785nm and 1064nm

CONCLUSION

Because of its ability to test the full range of materials covered by a 785nm system and the added ability to cover materials blocked by fluorescence, the Progeny 1064nm analyzer offers the most comprehensive material identification range in a handheld form. Manufacturers can now perform lab-quality analysis at any point in their production process, enabling stronger quality programs.

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