In-line Raman spectroscopy was used to monitor granule homogeneity at the AMANRXN analyser utilising PhAT technology from Kaiser. High-performance liquid chromatography (HPLC) was used as the standard assay method. Raman data of granule blend uniformity shows 100.5% mean potency (RSD = 2.3%), and HPLC analysis of tablet content uniformity at 40% tablet compression shows 103.2% mean potency (RSD = 2%). The slightly higher RSD from Raman may arise from different sample sizes, effective API concentrations, or the use of different instruments. The results also indicate that Raman spectroscopy is appropriate for monitoring and control of continuous processing and real-time release testing.

**Conclusion**

This study demonstrates that Raman spectroscopy can be successfully implemented as an in-line monitoring tool for pharmaceutical blending processes and tablet compression. The quality output that compares favorably with off-line QC testing but enables real-time process corrections, such as a longer blend time, that are not possible with off-line QC testing such as HPLC or transmission Raman. The results also indicate that Raman spectroscopy is appropriate for monitoring and control of continuous processing and real-time release testing.

**Reference**


**Application Notes & Whitepapers 2016**

Application Notes & Whitepapers 2015

- **In-line Raman spectroscopy for content uniformity**
- **Kaiser Optical Systems, Inc.**
- **www.kosi.com**

Further information:
- Kaiser Optical Systems, Inc.
- www.europeanpharmaceuticalreview.com

**Deadlines**

To take advantage of this opportunity contact the team today.

- **Booking:** ASAP
- **Copy Deadline:** 26 November 2016

**Added Benefits**

1. Your App Note / Whitepaper will be uploaded onto europeanpharmaceuticalreview.com
2. Your entry will be promoted on a dedicated App Note/ Whitepaper supplement 2016 e-Blast
3. You will receive the data from everyone who has downloaded your application note from the website.

When you publish 2 pages or more...

Dedicated e-Blast promoting your individual app note to our entire database (worth over £1,500 alone).

**Page App Note / Whitepaper Costs**

The cost to be part of the supplement is lower than our normal page rates.

<table>
<thead>
<tr>
<th>NUMBER OF PAGES</th>
<th>1</th>
<th>2</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td>COST</td>
<td>£1,750</td>
<td>£2,995</td>
<td>£3,995</td>
</tr>
</tbody>
</table>

4 pages or more on application

**Contact**

Rizwan Chaudhrey | Sales Director  
T: +44 (0)1959 563311  
E: rchaudhrey@russellpublishing.com

Ryan Clarke | Sales Executive  
T: +44 (0)1959 563311  
E: rclarke@russellpublishing.com

**To find out more contact:**