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Supplementary Information

Investigation of factors affecting isolation of needle-shaped particles in a vacuum agitated filter drier through non-invasive measurements by Raman spectrometry

Peter Hamilton, David Littlejohn, Alison Nordon, Jan Sefcik, Paul Slavin, John Andrews and Paul Dallin

a WestCHEM, Department of Pure and Applied Chemistry and CPACT, University of Strathclyde, Glasgow, G1 1XL, UK
b Department of Chemical and Process Engineering, University of Strathclyde, 75 Montrose Street, Glasgow, G1 1XJ, UK
c GlaxoSmithKline, Gunnels Wood Road, Stevenage, Hertfordshire, SG1 2NY, UK
d Clairet Scientific, 17/18 Scirocco Close, Moulton Park Industrial Estate, Northampton, NN3 6AP, UK

* denotes authors to whom correspondence should be sent

David Littlejohn
Email: d.littlejohn@strath.ac.uk; tel: +44(0)141 548 2067; fax: +44(0)141 548 4212

Alison Nordon
Email: alison.nordon@strath.ac.uk; tel: +44(0)141 548 3044; fax: +44(0)141 548 4212
Assignment of Raman spectra of cellobiose octaacetate (COA) and methanol

Underivatised and 1\textsuperscript{st} derivative Raman spectra of COA and methanol are shown in Fig. S1a and Fig. S1b, respectively.

![Fig. S1. a) Underivatised and b) 1\textsuperscript{st} derivative Raman spectra of COA (red) and methanol (blue).](image)

The methanol peaks at 1036 and 1453 cm\textsuperscript{-1} in Fig. S1a can be attributed to the C-O stretch and CH\textsubscript{3} bending mode [Mammone et al., 1980]. As the samples were contained within glass
vials and analysed from above, there is a broad peak at approximately 1500 cm$^{-1}$, which arises from the base of the glass vial, evident in the spectrum of methanol. The COA peaks in Fig. S1a can be assigned as follows (VanderHart et al., 1996): i) 900 – 1120 cm$^{-1}$ arise from HCC and HCO bending at C6 and heavy-atom (C-C and C-O) stretching; ii) 1150 – 1330 cm$^{-1}$ arise from heavy-atom (C-C and C-O) stretching and HCC and HCO bending; iii) 1350 – 1410 cm$^{-1}$ arise from HCC, HCO and HOC bending; iv) 1420 – 1490 cm$^{-1}$ arise from HCH and HOC bending; and v) the peak at 1743 cm$^{-1}$ arises from the carbonyls in the acetyl groups.

References
