

Rapid Raman Mapping for Chocolate Analysis

I. A. Larmour, K. Faulds and D. Graham*

Centre for Molecular Nanometrology, WestCHEM, Department of Pure and Applied Chemistry,
University of Strathclyde, 295 Cathedral Street, Glasgow, UK. E-mail: duncan.graham@strath.ac.uk;
Tel: +44 141 548 4701

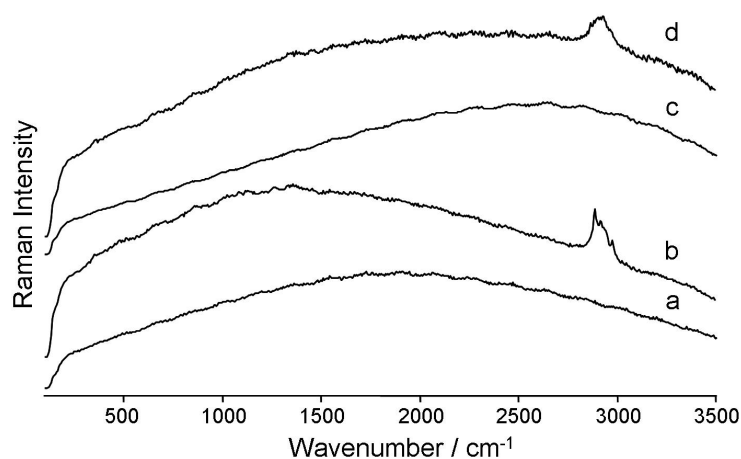


Figure S1. Reference spectra of the constituents which showed fluorescence at 532 nm laser excitation. a – lecithin, b – whey, c – cocoa mass, d – skimmed milk powder. Spectra were accumulated for 60 seconds apart from c which was accumulated for 5 seconds with a 10x objective, see main text.

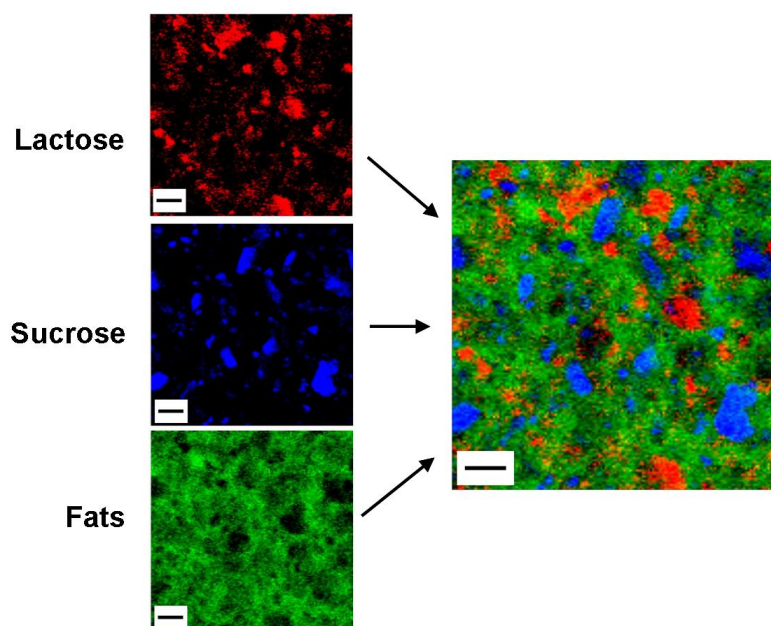


Figure S2. Raman mapping of a white chocolate sample measured at 785 nm, constituent maps and the combined Raman map which shows the lactose and sucrose particles within a matrix of ‘fats’. Scale bar in each image is 10 μm .