

Figure ESI S1 : Effect of reaction time and temperature on sialic acid derivatisation.



Figure ESI S2: Linearity response of derivatised sialic acid standards.



Figure ESI S3: Linearity response of sample injection volume of sialic acid.



**Figure ESI S4:** HPLC chromatograms obtained from the analysis of the yeastolate samples overlaid with a sialic acid standard. Chromatographic conditions are as described in Figure 4.5. Peaks: (1) sialic acid, (2) 2-deoxy-D-ribose.



**Figure ESI S5:** Selected HPLC chromatograms obtained from the analysis of the in-process samples overlaid with a sialic acid standard. Chromatographic conditions are as described in Figure 4.5. Peaks: (1) sialic acid, (2) 2-deoxy-D-ribose.