

Title: Fluorescence spectroscopy of calcofluor stained yeast cell suspensions

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Abstract: We were finding and we found fast and easy fluorescence spectroscopy method which we can use for cell wall research of different yeast types that were cultivated on various medium. Gauging was under way in solution of different ionic forces. The growth medium has the greatest effect on quality of cell wall. We use calcofluor as fluorescent colour. After exposing calcofluor by UV ( $\lambda_{ex} \approx 365 \text{ nm}$ ) calcofluor emits blue fluorescence with maximum intensity around  $420 \text{ nm}$  in dependence on suspension concentration. We must be careful about inner filter that can influence our result during research. We validated diversity of cell wall structures in various yeast types by ratio spectral method (spectral fingerprint).

Keywords: Fluorescence, spectroscopy, cell wall, calcofluor, inner filter.