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DEGRADATION OF SUGAR COLOURANTS BY THE WHITE ROT FUNGUS PHANEROCHAETE CHRYSOSPORIUM

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Abstract

Colour in sugar industry consists in a complex mixture of different types of colourants. The most important being : (1) phenolic compounds coming from the cane plant, (2) **caramels** which are produced by thermal degradation and condensation reactions of **sugars** and (3) melanoidins formed from sugar-amino acid reactions via the Maillard **reaction**. During refining process colourants are removed, at least in part, from the **sugar liquor** by anion-exchange resins. The regeneration of the resins produces an **effluent** containing those colourants. In order to study the ability of *P. chrysosporium* to degrade each family of colourant, different culture media specifically enriched with **teach** colourant type were assayed. The results showed that the organism was able to degrade all kinds of tested colourants.