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**BOOK OF ABSTRACTS**



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**Toxicity of decolourisation products of synthetic textile effluents by a selected yeast** **PC 18**

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### **Abstract**

The textile sector is a worldwide industry that produces high volumes of harmful effluents that are discharged in the environment. They are resistant to biodegradation and potentially damaging to the ecosystems [1]. Classic treatment methods are not very effective and biological methods are generally considered more environmentally friendly and of major relevance [2, 3]. Nonetheless, due to variability of biological processes, it is important to assess the toxicity of the decolourisation products.

The aim of this work was to assess the ability of a selected yeast strain to decolourise specific synthetic textile effluents, with a minimum culture medium, and to assess the toxicity of the resulting decolourisation products.

Yeast LIIS36B was previously selected and the synthetic textile effluents used were representative of major classes of dyes. Yeast was cultivated in a minimum culture medium containing glucose (20 g/L) supplemented with 2.5 g/L of each synthetic textile effluent selected and incubated at 25 °C/100 rpm during 48 h. After decolourisation, cultures were centrifuged at 5000 rpm for 15 minutes and the supernatants were tested for its toxicity. Toxicity assays are being performed using organisms of different trophic levels.

Decolourisation of the synthetic effluents tested was efficient only with a minimum culture medium. Different trophic levels seem to show different results for toxicity. Different classes of dye effluents showed similar results.

### **Bibliography**

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