SESSION 4: ENVIRONMENTAL APPLICATIONS

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APPLICATION OF IMMOBILIZED FUNGI IN ENVIRONMENT

This short overview aims to provide some examples of the immobilized cell technology as applied for bioremediation of the environment. A vast collection of literature exists in this area of research. The scope of this presentation is limited to aerobic systems in the liquid phase; particular emphasis is put on two topics: decolourisation/detoxification of dyes and biodegradation of phenolics.

In this respect, a range of fungi from yeasts to filamentous fungi and basidiomycetes is considered.

The immobilization techniques include both entrapment and adsorption using variety of matrices. Reactor types and modes of fermentation are described.

Over more than 5 decades cell immobilization technology has matured remarkably. However, commercial application of this technology has been limited only to very few areas. The potential and the direction of cell immobilization for environmental usage is subject to further discussion.

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