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Biocatalyst development for biodesulfurization

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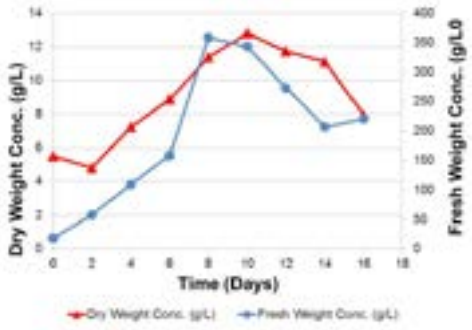
The global effort to make fossil fuel sulfur-free is growing day by day. An impurity such as sulfur reduces the quality of fuel and also contributes significantly to air pollution. Therefore, this research project will become part of the efforts to ensuring there is a path to zero-sulfur fuel. One important aspect of desulfurization is the use of biological catalysts which have little or no negative environmental impacts as opposed to chemical means. The use of plant and bacterial culture is a common practice for these important processes. This project is aimed to grow plant cell cultures and also increase the bio-catalytic surface area by hairy roots growth. This bioprocess will enable us to investigate the reaction mechanisms that lead to biodesulfurization of dibenzothiophenes via the metabolic pathways of the cells. The end marker of desulfurization of DBT is 2-hydroxybiphenol, which will be quantitatively expressed in the cultures).



Biography

Maha has got her bachelor degree from Saudi Arabia and Master from Manchester University in Biotechnology. Now she is doing her PhD in Biocatalyst. She has an experience in teaching in educational institutions. She was working as women activities manager of the Saudi Students in Manchester University. And now she is a member of the Arabic Forum for The Development of Creativity.

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