

Extremophiles as Source of Biosurfactants

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ABSTRACT

The surfactants are commercially very useful compounds used in detergent, soap and many other industries. They are amphipathic compounds having surface activities. They are traditionally chemically synthesized primarily from petroleum. But since chemically synthesized surfactants are cytotoxic, environment-polluting and non-sustainable, a sustainable alternative is of utmost importance. Extremophiles live in hostile conditions wherein they synthesize certain organic chemicals of amphipathic nature to protect themselves. These compounds are detected in the culture medium by their ability to lowering the surface tension. Current challenge is the cost of production, lower productivity, and inefficient downstream processing.

Keywords: Extremophiles, Surfactants, Biosurfactants

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