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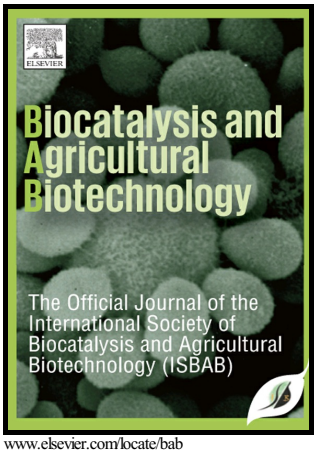

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Insights into the microbial degradation pathways of the ioxynil octanoate herbicide

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Abstract

This paper describes the biodegradation of the ioxynil octanoate herbicide by indigenous microorganisms isolated from herbicide impacted soil-enrichment cultures. Eleven positive hits out of twenty-nine microorganisms screened for nitrile hydratase, nitrilase and amidase activity were further evaluated based on their growth in microtiter plates containing liquid medium with increasing concentrations of herbicide (0.97 to 250 mM). Two strains were selected from this assay for