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Characterization of a topologically unique oxygenase from *Sphingobium* sp. PNB capable of catalyzing a broad spectrum of aromatics

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Highlights

- Characterization of polycyclic aromatic hydrocarbon dioxygenase in *Sphingobium* sp.
- *In silico* analysis of large catalytic pocket and unique substrate access channel
- Cloning and expression of multi-component dioxygenase
- Evaluation of broad substrate specificity, guided by molecular docking analysis