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## Removal mechanisms in aerobic slurry bioreactors for remediation of soils and sediments polluted with hydrophobic organic compounds: An overview

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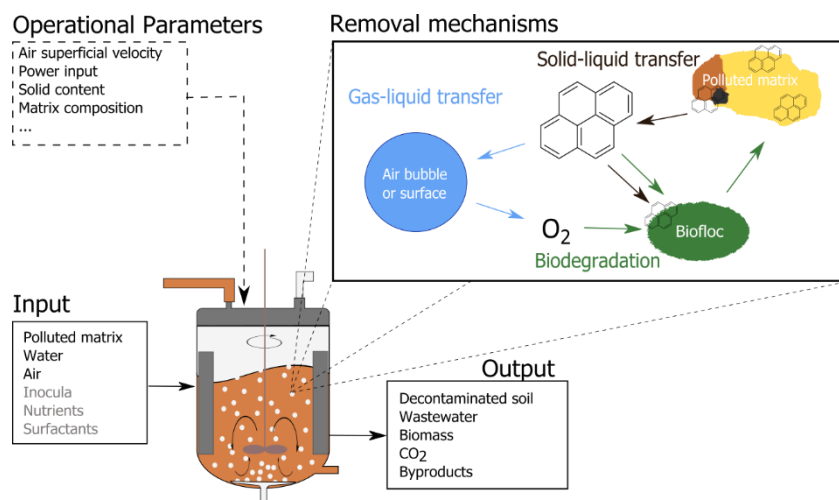
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### Highlights

- The HOC-contaminated soil treatment using soil slurry bioreactors is reviewed.
- The main HOC-removal mechanisms, such as biodegradation, gas-liquid and solid-liquid transfer are identified.
- These mechanisms compete to determine the pollutant removal rate. Their importance will depend on the pollutant type and nature, the soil or sediment characteristics and the operational parameters.
- HOC volatilization and oxygen transfer are the less studied processes in these systems. Researchers often neglect them, but, in some cases, they can control HOC removal.
- Research directions regarding bioslurry technology are identified.

### Graphical Abstract



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