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Biodegradation of isopropanol and acetone under denitrifying conditions by *Thauera* sp. TK001 for nitrate-mediated microbially enhanced oil recovery

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Highlights

- Nitrate-reducing, isopropanol- and acetone-degrading bacteria identified as *Thauera* sp. TK001 was isolated from oil field.
- Isopropanol and acetone were used as substrates for nitrate reduction by TK001 to improve production.
- Biodegradation of isopropanol and acetone were coupled to the biotechnological applications in enhancing oil production
- The technology requires less energy input and costs than other technologies using Microbially Enhanced Oil Recovery.

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