

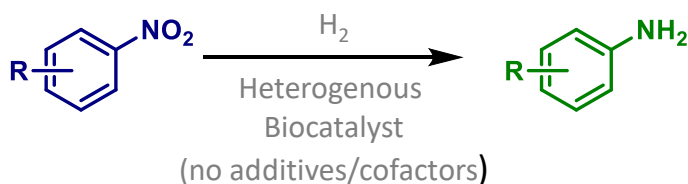
# Clean, simple nitro reductions

Biocatalytic hydrogenation for simple and sustainable precision chemical manufacturing



'Black powder' biocatalyst system for clean aromatic amine production via nitro group reduction.

- Clean conversion to amine product, no intermediates detected (e.g. no hydroxylamine)
- No additives or cofactors required
- Simplified analysis and product isolation
- Existing hydrogenation protocols and infrastructure can be used
- Broad substrate scope, proven chemo-selectivity
- Multi-day catalyst stability

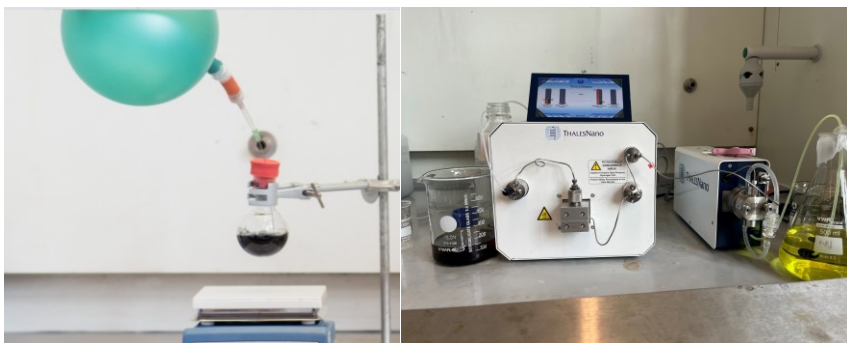


### Optimal conditions:

- pH 6-8 (inc. water)
- 0-10% cosolvent (more tolerated)
- 20-35 °C
- 1-4 bar H<sub>2</sub>

## Batch and Continuous Flow

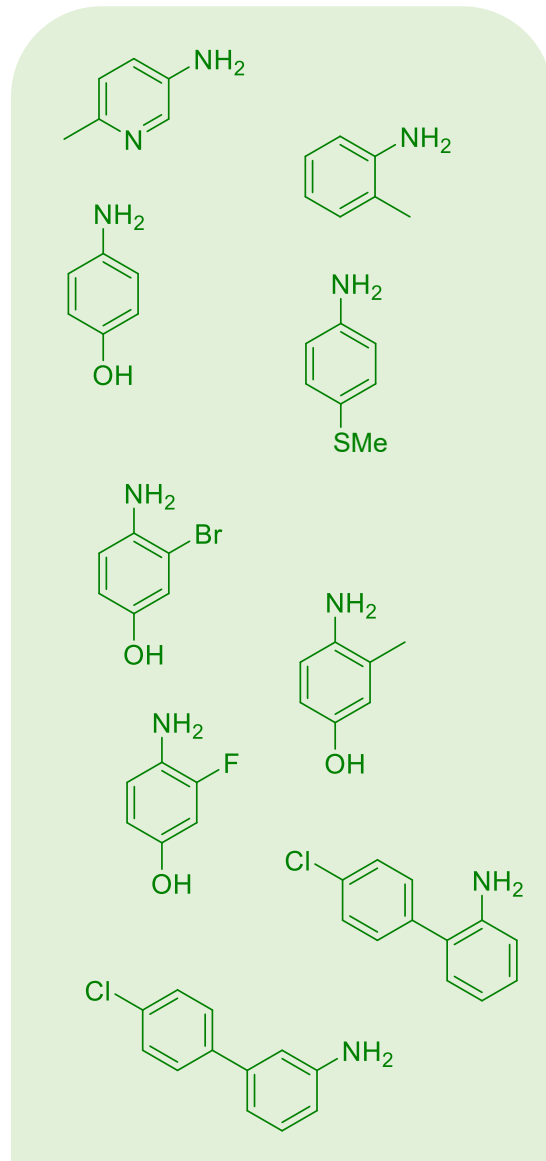
HydRegen will provide 'black powder' catalysts that slot into existing benchtop hydrogenation infrastructure, allowing you to make use of your existing equipment and expertise.



## Also ask us about

- Aliphatic nitro reduction
- Azide reduction
- NADH-dependent biocatalysis

We can provide biocatalyst samples and technical support for early evaluation partnerships, with a pre-organised feedback meeting to inform our ongoing product development.



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