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**Title** Malic acid production through the whole-cell hydration of fumaric acid  
with immobilised *Rhizopus oryzae*

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**Highlights**

- *Rhizopus oryzae* demonstrated excellent malic acid production capabilities
- Biomass preparation was easier compared to existing processes
- No by-products were produced
- Maximum specific malic acid production was 3.78 g.g<sup>-1</sup>.h<sup>-1</sup>
- Production rate half-life was 40h

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