

Reaction name	Reaction
H <sub>2</sub> transport	H <sub>2</sub> → H <sub>2</sub> (e)
NO <sub>2</sub> <sup>-</sup> transport	NO <sub>2</sub> <sup>-</sup> → NO <sub>2</sub> <sup>-</sup> (e)
NO <sub>3</sub> <sup>-</sup> transport	NO <sub>3</sub> <sup>-</sup> → NO <sub>3</sub> <sup>-</sup> (e)
Acetate transport	Acetate + H <sup>+</sup> → Acetate(e) + H <sup>+</sup> (e)
NO <sub>3</sub> <sup>-</sup> reductase	2NO <sub>3</sub> <sup>-</sup> + 2QH <sub>2</sub> → 2NO <sub>2</sub> <sup>-</sup> + ATP + 2Q + 2H <sub>2</sub> O
NO <sub>2</sub> <sup>-</sup> reductase	NO <sub>2</sub> <sup>-</sup> + 3QH <sub>2</sub> + 2H <sup>+</sup> → NH <sub>4</sub> <sup>+</sup> + 3Q + 2H <sub>2</sub> O
H <sub>2</sub> reductase	H <sub>2</sub> + Q → QH <sub>2</sub>
Biomass Reaction	30ATP + 2.2NH <sub>4</sub> <sup>+</sup> + 4.84Acetate → Biomass