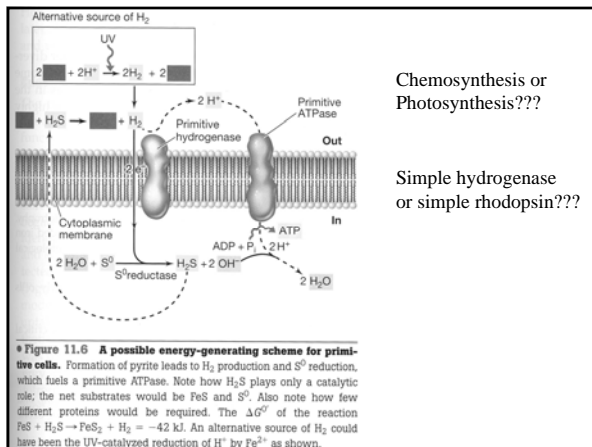


AMO is backwards and requires a friend

Angie Borstis and Armin Gesske

Reaction	Organism	ΔG <sup>0</sup> (kJ)
CH <sub>4</sub> + 2 H <sub>2</sub> O → CO <sub>2</sub> + 4 H <sub>2</sub>	Methanogen	+131
SO <sub>4</sub> <sup>2-</sup> + 4 H <sub>2</sub> + H <sup>+</sup> → HS <sup>-</sup> + 4 H <sub>2</sub> O	Sulfate-reducer	-156
Sum: SO <sub>4</sub> <sup>2-</sup> + CH <sub>4</sub> → HCO <sub>3</sub> <sup>-</sup> + HS <sup>-</sup> + H <sub>2</sub> O	Syntrophic reaction	-25



Chemosynthesis or Photosynthesis???

Simple hydrogenase or simple rhodopsin???

