Table 2. Changes of Gibbs free energies under standard conditions in hydrogen-consuming reactions involved in interspecies hydrogen transfer.

	G_0' (kJ per mol rct.)	G_0' (kJ per electron pair)
$4H_2 + 2\ CO_2 \rightarrow CH_3COO^- + H^+ + 2H_2O$	–94.9	–23.8
$4H_2 + CO_2 \rightarrow CH_4 + 2H_2O$	–131.0	–32.7
$H_2 + S^0 \rightarrow H_2S$	–33.9	–33.9
$4H_2 + SO_4^{2-} + H^+ \rightarrow HS^- + 4H_2O$	–151.0	–37.6
$H_2C(NH_3^+)COO^- + H_2 \rightarrow CH_3COO^- + NH_4^+$	–78.0	–78.0
$Fumarate^{2-} + H_2 \rightarrow succinate^{2-}$	–86.0	–86.0

All calculations are based on published tables (see Thauer et al., 1977; Dimroth, 1983). For H_2S and CO_2, values for the gaseous state were used.