

## Supplementary Information

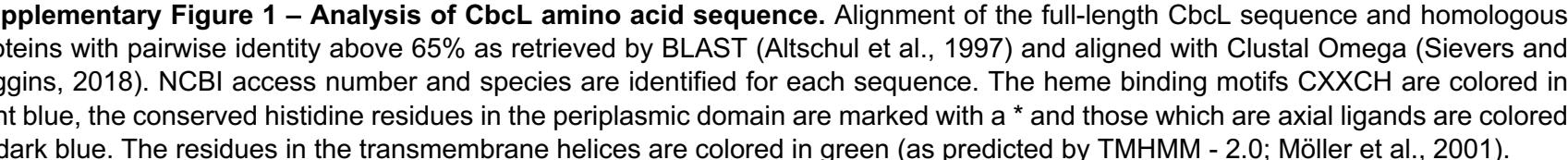
### **Electron flow from the inner membrane towards the cell exterior in *Geobacter sulfurreducens*: biochemical characterization of cytochrome CbcL**

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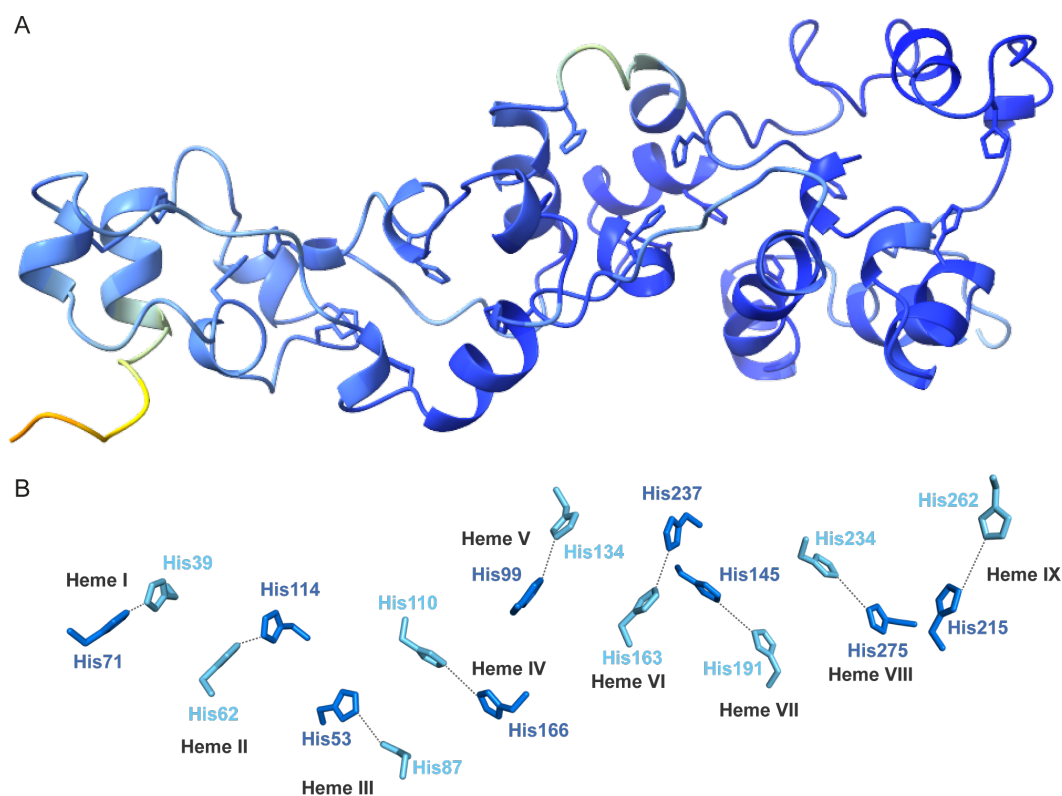
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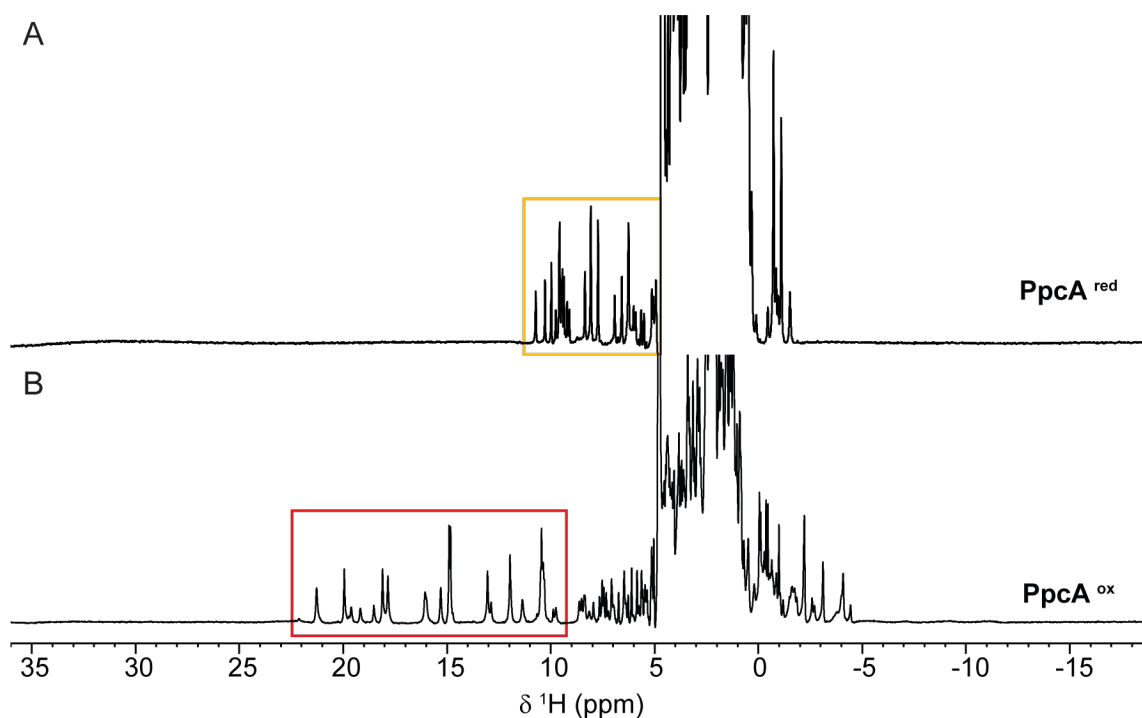


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WP_039744678.1	G. <i>pickeringii</i>	HAE-HHVDPDGHKVVYRRFKRRHIFLHLHLVIFSLLLLSLGLPLKFS							AGAGITFVYFVGSLSLSFHFVLRKDIKGNWLMRMFGPDSLM				
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WP_214186053.1	G. <i>hydrogenophilus</i>	PNFRD IKDVAGMVRWF LFRGPKPTFERWYWEKDFIAVFWGMFA							AGAGITFVYFVGSLSLSFHFVLRKDIKGNWLMRMFGPDSLM				
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WP_053649256.1	Desulfuromonas sudanensis	PNFRD IKDVAGMVRWF LFRGPKPTFERWYWEKDFIAVFWGMFA							AGAGITFVYFVGSLSLSFHFVLRKDIKGNWLMRMFGPDSLM				
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WP_153304744.1	G. <i>lovleyi</i>	PNFRD IKDVAGMVRWF LFRGPKPTFERWYWEKDFIAVFWGMFA							AGAGITFVYFVGSLSLSFHFVLRKDIKGNWLMRMFGPDSLM				
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WP_010940947.1	Cbcl G. <i>sulfurreducens</i>	QMPKHEFIEERGDQWKRYEELGITEFAAKKTSQGVYDFIVKAFGFC	560	570	580	590	600	610	619				
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WP_145018723.1	G. <i>argilaceus</i>	QMPKHEFIEERGDQWKRYEELGITEFAAKKTSQGVYDFIVKAFGFC							AGAGITFVYFVGSLSLSFHFVLRKDIKGNWLMRMFGPDSLM				
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WP_092058298.1	Desulfuromonas acetigenis	QMPKHEFIEERGDQWKRYEELGITEFAAKKTSQGVYDFIVKAFGFC							AGAGITFVYFVGSLSLSFHFVLRKDIKGNWLMRM				

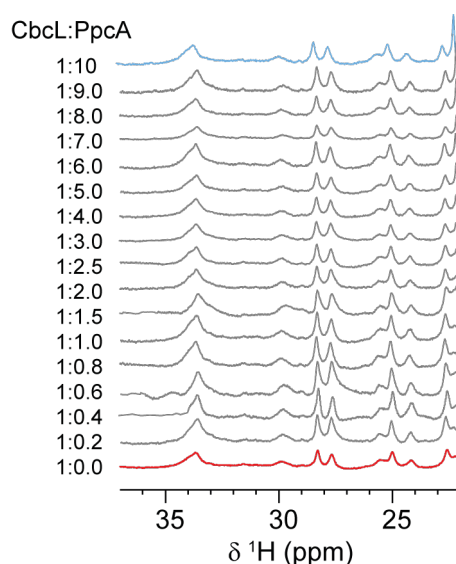


**Supplementary Figure 2 – AlphaFold prediction of CbcL periplasmic domain structure** (Jumper et al., 2021). (A) Structural model in cartoon representation colored by prediction confidence (B-factor). (B) Heme axial ligands. Histidine residues from the heme binding motifs CXXCH are colored in light blue (proximal ligands) and distal ligands in dark blue.





**Supplementary Figure 3 – 1D  $^1\text{H}$  NMR spectrum of cytochrome PpcA in the reduced (A) and oxidized (B) forms.** Spectra were acquired at 25 °C with 100  $\mu\text{M}$  of PpcA in 10 mM sodium phosphate pH 8. The yellow and red rectangles highlight the PpcA fingerprints in the reduced and oxidized states, respectively.



**Supplementary Figure 4 – NMR chemical shift perturbation experiments of CbcL in the presence of PpcA.** 1D  $^1\text{H}$  NMR spectra of CbcL acquired with increasing amounts of PpcA (ratio CbcL:PpcA indicated on the left side of each spectrum). Spectra were acquired at 25 °C with 100  $\mu\text{M}$  of CbcL in 10 mM sodium phosphate pH 8.

## References

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