



## Terminal oxidation models postulated in alkaliphilic (upper) and neutralophilic (lower) bacilli.

Some alkaliphilic bacilli produce much cytochrome *c* responsible for their growth at high pHs. Based on the difference in the midpoint redox potential between cytochrome *c* and cytochrome *a* in alkaliphiles in contrast to neutralophiles, H<sup>+</sup>-coupled electron transfer of cytochrome *c* is probably demonstrated to play a crucial role in the adaptation of alkaliphiles at high pHs.

Related article: Goto, T., Matsuno, T., Hishinuma-Narisawa, M., Yamazaki, K., Matsuyama, H., Inoue, N., and Yumoto, I., "Cytochrome *c* and Bioenergetic Hypothetical Model for Alkaliphilic *Bacillus* spp.," *J. Biosci. Bioeng.*, vol. 100, 365-379 (2005).