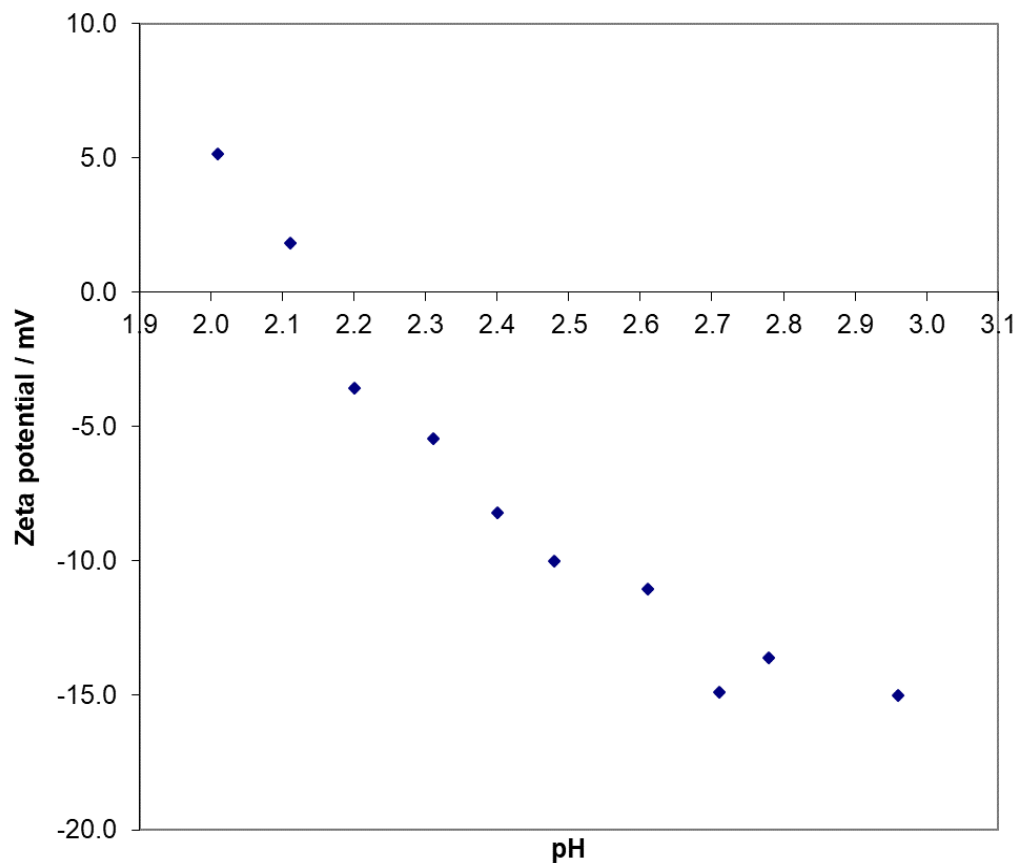


## Supplementary information on “Bacterial surface charge in “layers”: revealed by wash buffers of different ionic strength”

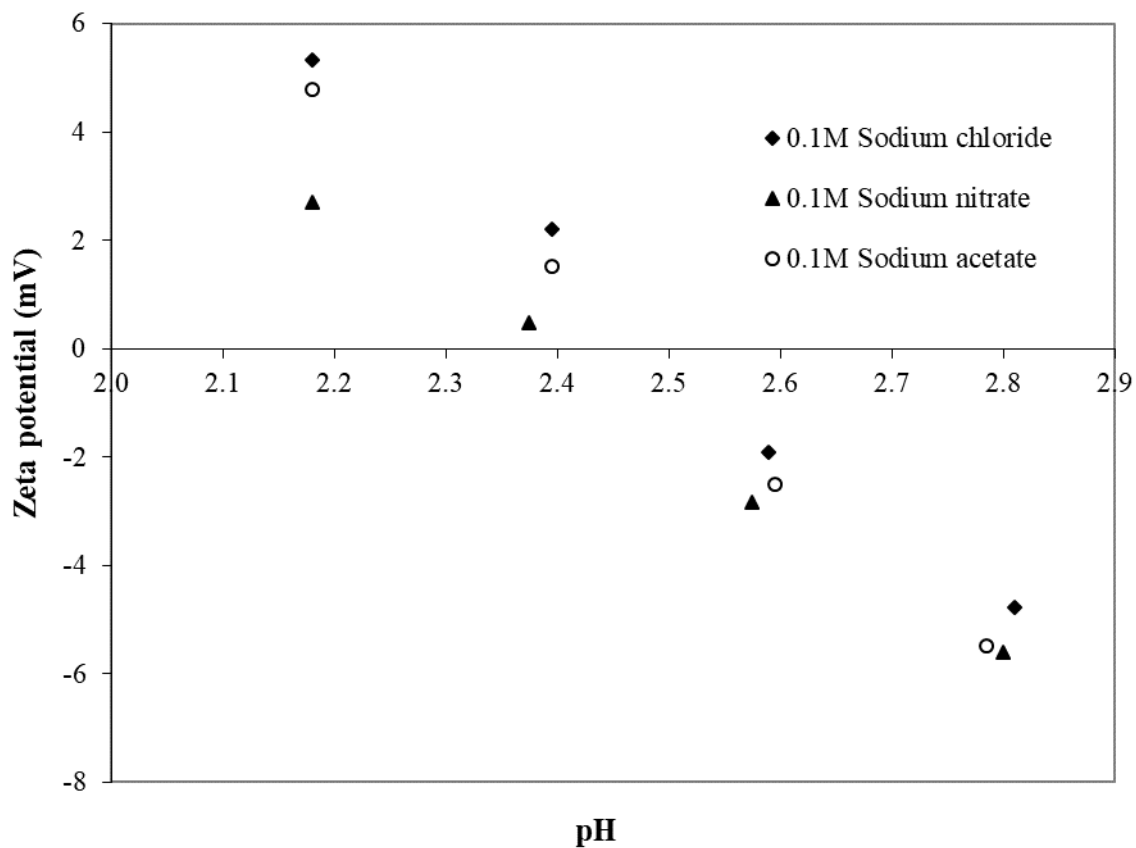
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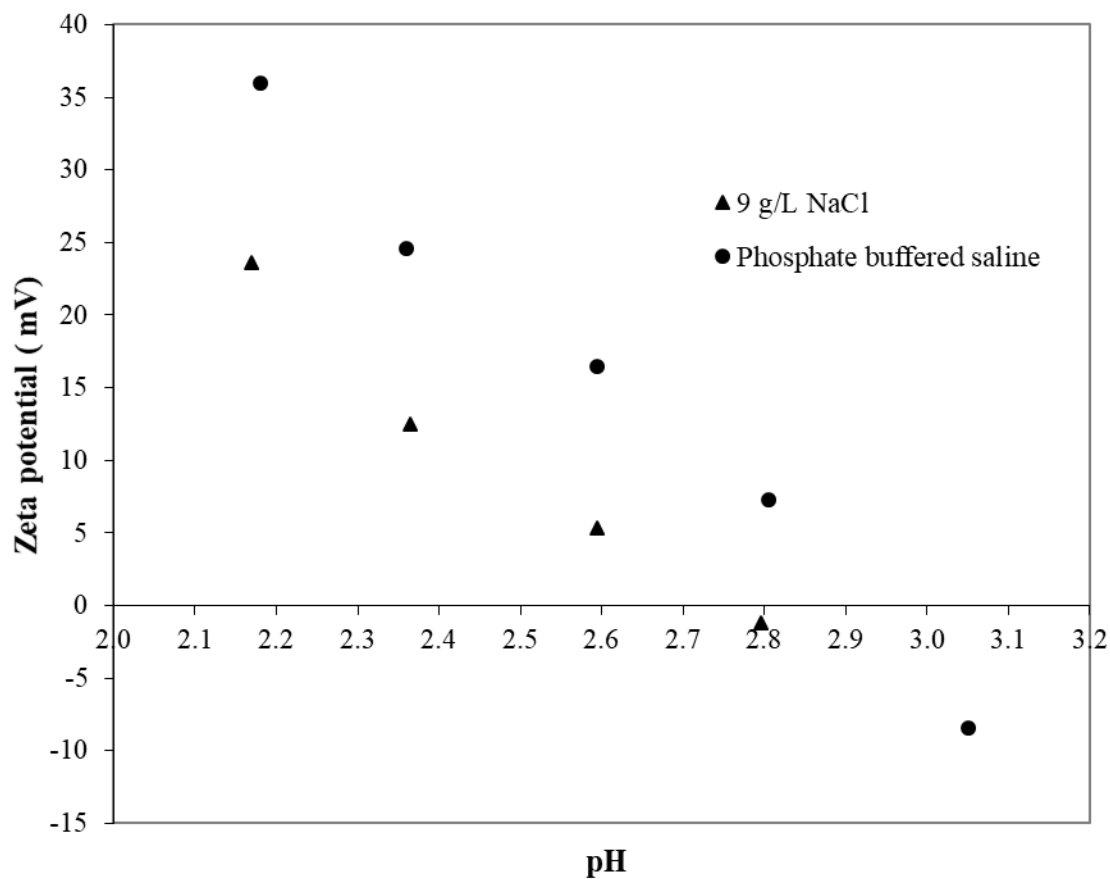
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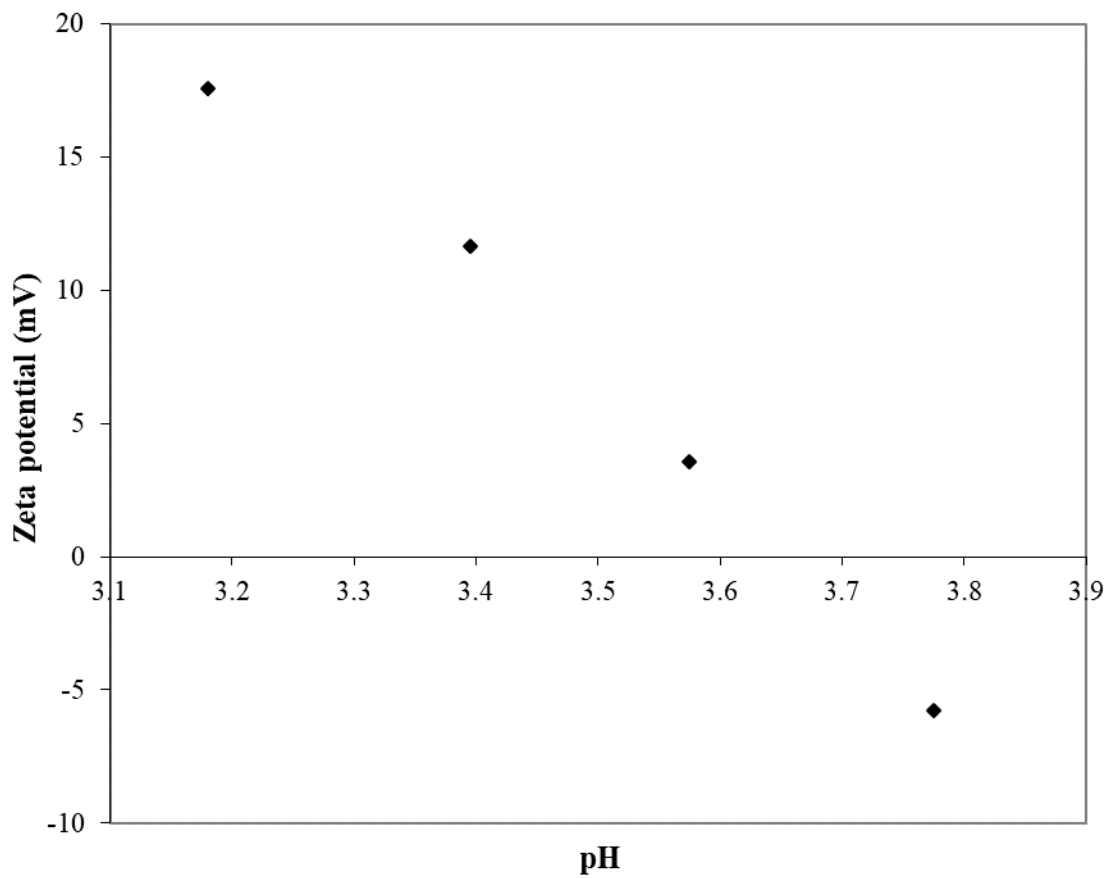
**Figure S1:** Variation of zeta potential with pH in search of point of zero charge ( $\text{pH}_{\text{zpc}}$ ) of *E. coli* DH5 $\alpha$  washed with deionized water. *E. coli* DH5 $\alpha$  cells were resuspended in deionized water for the measurement. The bacterium was grown in LB Lennox medium with 2 g/L glucose. The  $\text{pH}_{\text{zpc}}$  of cells washed with deionized water was estimated to be 2.15.



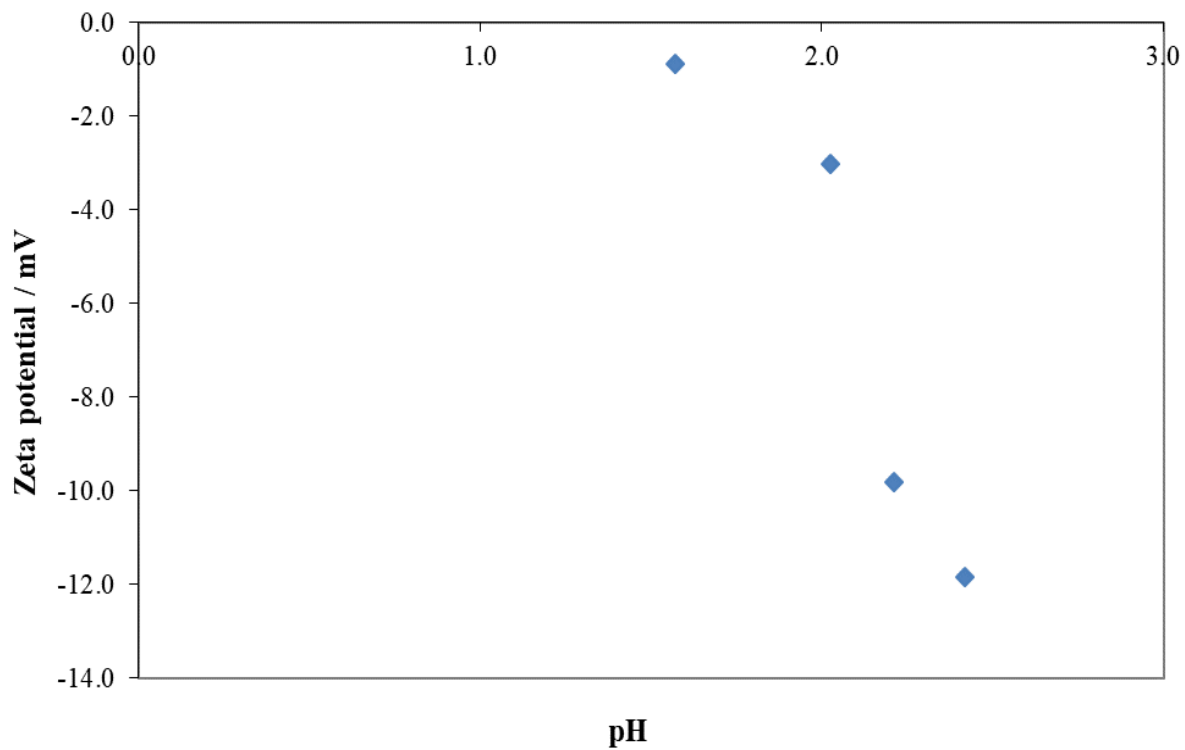
**Figure S2:** Variation in zeta potential with pH for search of point of zero charge ( $\text{pH}_{\text{zpc}}$ ) of *E. coli* DH5 $\alpha$  cells washed with 0.1M sodium chloride, 0.1M sodium nitrate, and 0.1M sodium acetate. Cells were resuspended in deionized water for the measurement. *E. coli* DH5 $\alpha$  was grown in LB Lennox medium with 2 g/L glucose. The  $\text{pH}_{\text{zpc}}$  of cells washed with 0.1M sodium chloride, 0.1M sodium nitrate, and 0.1M sodium acetate was estimated to be 2.5, 2.4, 2.45, respectively.



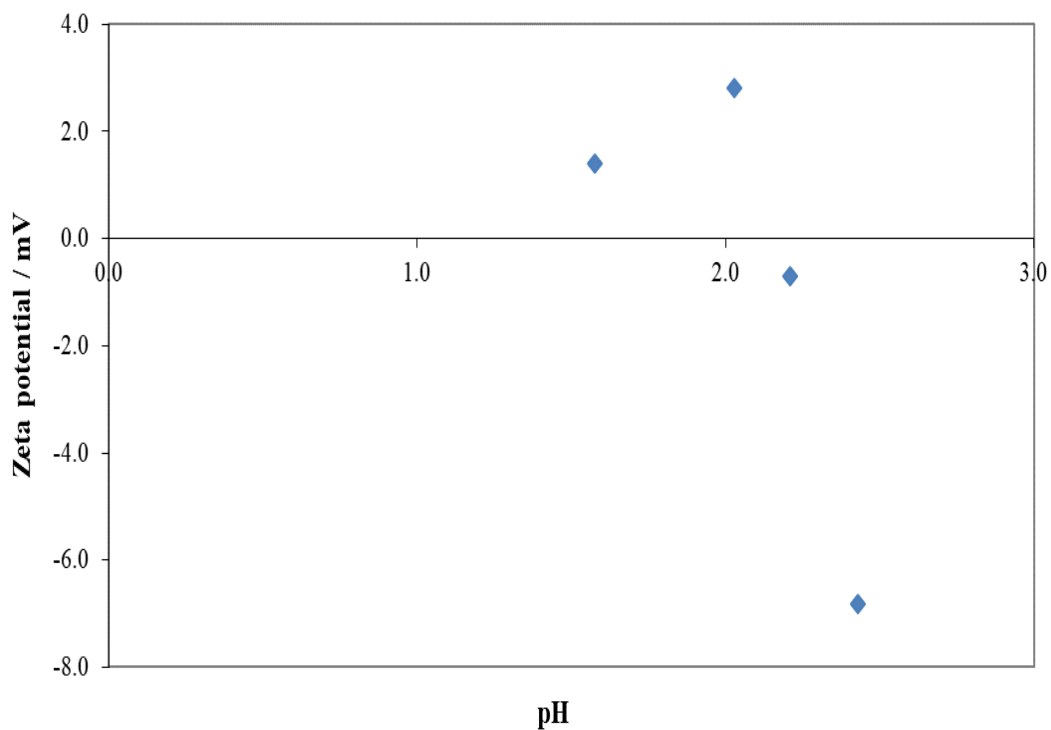
**Figure S3:** Variation of zeta potential with pH in search of point of zero charge ( $\text{pH}_{\text{zpc}}$ ) of *E. coli* DH5 $\alpha$  cells washed with 9 g/L sodium chloride and phosphate buffered saline (PBS). Cells were resuspended in deionized water for the measurement, and they were grown in LB Lennox medium with 2 g/L glucose. The  $\text{pH}_{\text{zpc}}$  of cells washed with 9 g/L NaCl and PBS was estimated to be 2.8 and 2.9, respectively.



**Figure S4:** Variation in zeta potential with pH in search of point of zero charge ( $\text{pH}_{\text{zpc}}$ ) of *E. coli* DH5 $\alpha$  cells washed with 0.1M sodium citrate. Cells were resuspended in deionized water for the measurement. *E. coli* DH5 $\alpha$  was grown in LB Lennox medium with 2 g/L glucose. The  $\text{pH}_{\text{zpc}}$  of cells washed with 0.1M sodium citrate was estimated to be 3.65.



**Figure S5:** Variation of zeta potential with pH in search of point of zero charge ( $\text{pH}_{\text{zpc}}$ ) of *E. coli* DH5 $\alpha$  grown in formulated medium and washed with 9 g/L sodium chloride wash buffer. Cells were resuspended in deionized water prior to zeta potential analysis.  $\text{pH}_{\text{zpc}}$  of cells washed with 9 g/L sodium chloride was estimated to be 1.5.



**Figure S6:** Variation of zeta potential with pH in search of point of zero charge ( $\text{pH}_{\text{zpc}}$ ) of *E. coli* DH5 $\alpha$  grown in formulated medium and washed with phosphate buffered saline (PBS) wash buffer. Cells were resuspended in deionized water for zeta potential measurement. The  $\text{pH}_{\text{zpc}}$  of cells washed with PBS wash buffer was estimated to be 2.2.

### Conflicts of interest

The authors declare no conflicts of interest.

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