



Correction: Understanding cation effects in electrochemical CO₂ reduction

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Correction for 'Understanding cation effects in electrochemical CO₂ reduction' by Stefan Ringe et al., *Energy Environ. Sci.*, 2019, 12, 3001–3014.

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In the original version of the manuscript, the fit function presented in the caption of Fig. 7 for the hydrated ions was wrong. The correct function was $-2.2x + 7.2$ (change highlighted in bold). Therefore the x -axis positions of the different cations in Fig. S17 which were obtained from this correlation function were also wrong. The correct Figure is as follows:

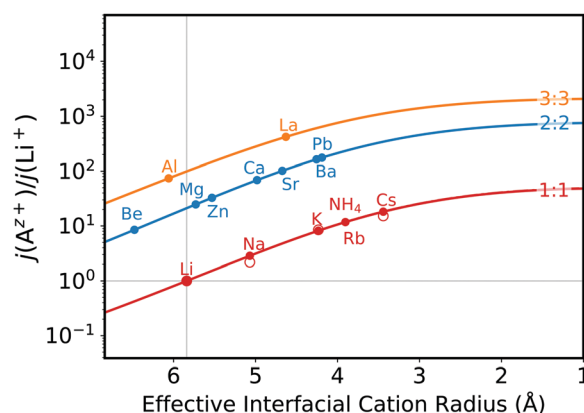


Fig. S17 Predicted cation effects for electrocatalytic CO₂ reduction at Ag(111) surfaces. The Figure depicts the predicted CO partial current density for A_xB electrolytes having a cation : anion charge ratio of z : z_x as a function of the hydrated cation size relative to that of TBA⁺ obtained from the linear fit in Fig. 7.

In addition, Fig. 6a used the wrong cation sizes for the organic cation data points. The updated Figure is given below:

Previous studies electrodeposited a Ag monolayer on Pt or Au and found the PZC to be up to 0.25 V more positive compared to Ag(111).²

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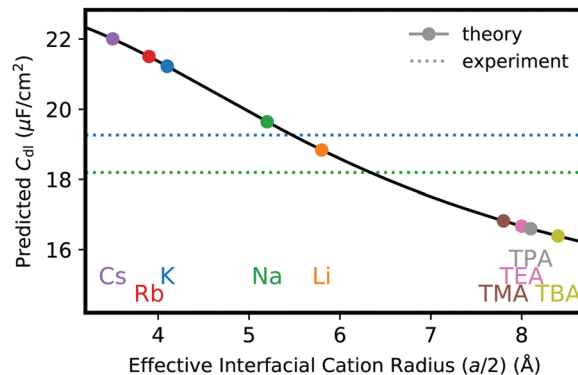


Fig. 6 (a) Double layer capacitance at the Au(111) single-crystal electrode using a 0.05 M KHCO₃ or NaHCO₃ electrolyte. (a) Potential-dependence of the double layer capacitance obtained from fitting a RC circuit to the impedance data. Filled circles denote the data points, the solid gray line the difference in surface charge density between both experiments under the assumption of the same PZC of 0.97 V vs. RHE.¹

The Royal Society of Chemistry apologises for these errors and any consequent inconvenience to authors and readers.

References

- 1 S. Trasatti and E. Lust in *Modern Aspects of Electrochemistry*, ed. J. O'M. Bockris, B. E. Conway and R. E. White, Kluwer Academic/Plenum Publishers, New York, 1999, vol. 33.
- 2 K. A. Soliman and L. A. Kibler, Variation of the potential of zero charge for a silver monolayer deposited onto various noble metal single crystal surfaces, *Electrochim. Acta*, 2007, 52(18), 5654–5658.

