Chemical Science

ROYAL SOCIETY OF CHEMISTRY

CORRECTION

View Article Online
View Journal | View Issue

Cite this: *Chem. Sci.*, 2021, **12**, 12847

Correction: Suppressing carboxylate nucleophilicity with inorganic salts enables selective electrocarboxylation without sacrificial anodes

Nathan Corbin, Deng-Tao Yang, Nikifar Lazouski, Katherine Steinberg and Karthish Manthiram*

DOI: 10.1039/d1sc90196f

rsc.li/chemical-science

Correction for 'Suppressing carboxylate nucleophilicity with inorganic salts enables selective electrocarboxylation without sacrificial anodes' by Nathan Corbin *et al.*, *Chem. Sci.*, 2021, DOI: 10.1039/D1SC02413B.

We regret that there was a minor error in the structure of the benzyl chloride in Scheme 2, Fig. 2 and the ESI. The structure of the benzyl chloride should be 4-methyl benzyl chloride but was instead given as 3-methyl benzyl. The correct figure and scheme are shown below, and the ESI has been updated.

Department of Chemical Engineering, Massachusetts Institute of Technology, 77 Massachusetts Avenue, Cambridge, Massachusetts 02139, USA. E-mail: karthish@mit.edu

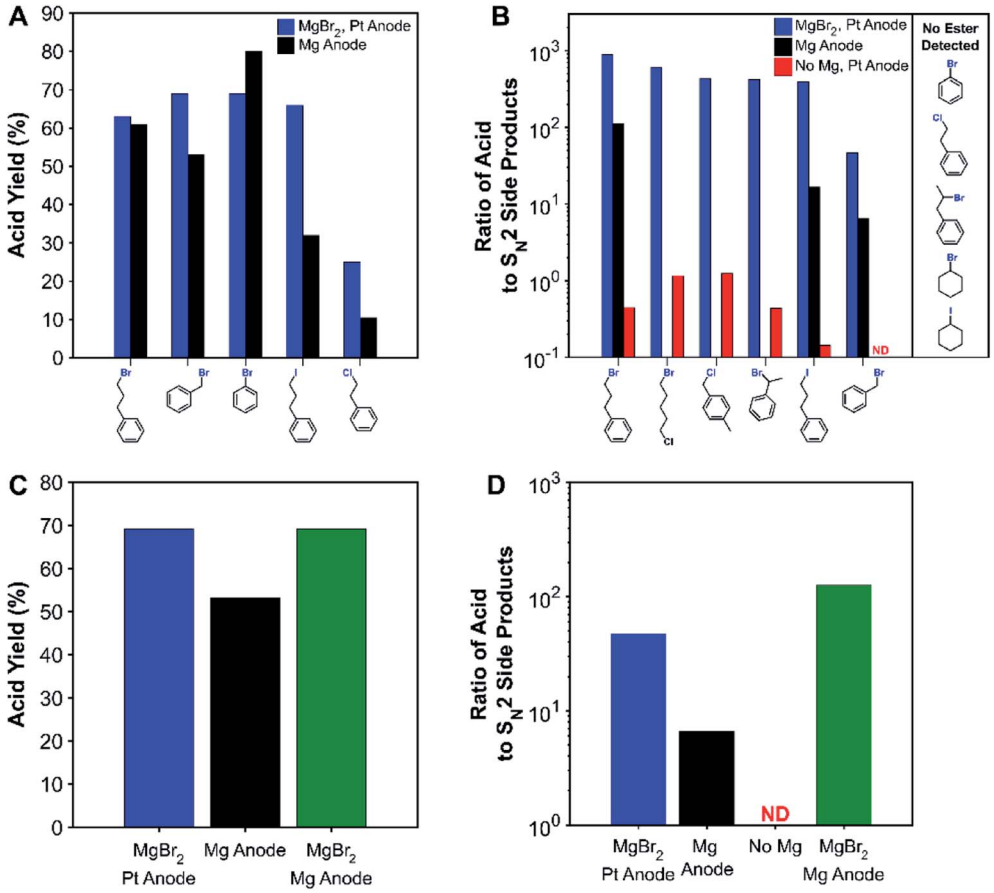
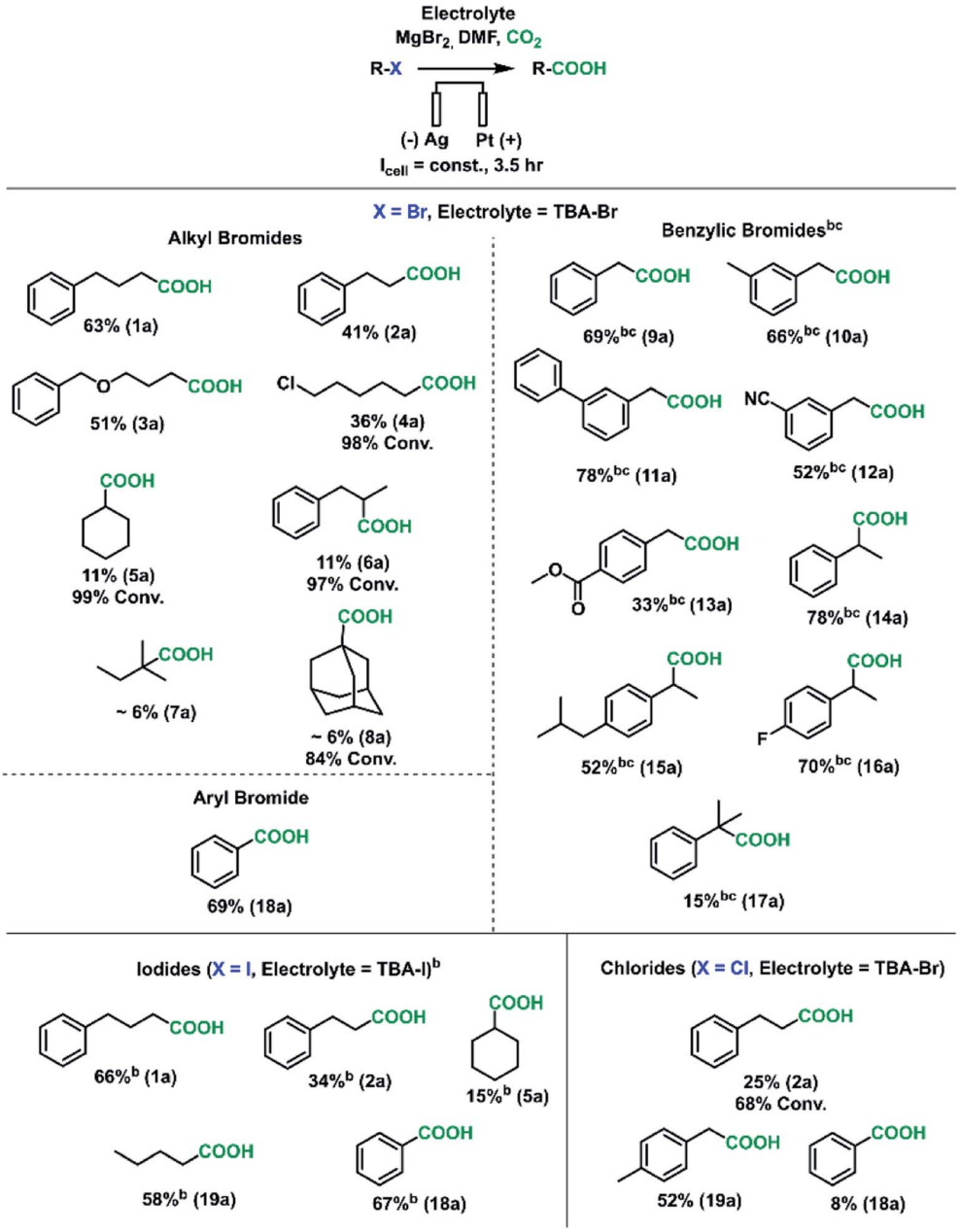


Fig. 2 (A) Comparison of acid yields for non-sacrificial-anode and sacrificial-anode carboxylation of various substrates. (B) Ratio of carboxylic acid to nucleophilic side products (ester + carbonate + alcohol) for various systems and substrates. Effect of adding $MgBr_2$ to the sacrificial-anode system on the (C) acid yield and (D) ratio of acid to S_N2 side products for benzyl bromide. Acid yields are tabulated in Table S6.† ND: acid not detected (acid-to-S_N2 ratio <0.1).



Scheme 2 Substrate scope for the sacrificial-anode-free electrochemical carboxylation of organic halides. [a]Standard reaction conditions: 100 mM electrolyte, 100 mM substrate, 100 mM $MgBr_2$, silver cathode, platinum anode, 20 sccm CO_2, 2.2 mL DMF, -20 mA cm^{-2} for 3.5 h. TBA-Br was used for chlorinated substrates because bromide oxidizes more readily than chloride, and only a small amount of chloride was replaced by bromide (<1% for the alkyl chloride, ~4% for the benzylic chloride). Yields are referenced to the initial amount of substrate and were calculated from ^{1}H NMR spectroscopy using either 1,3,5-trimethoxybenzene or ethylene carbonate as internal standards. [b]-15 mA cm^{-2} instead of -20 mA cm^{-2}. [c]150 mM $MgBr_2$ instead of 100 mM $MgBr_2$.

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