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CORRECTION

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Correction: Acid catalyst screening for hydrolysis of post-consumer PET waste and exploration of acidolysis

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Correction for 'Acid catalyst screening for hydrolysis of post-consumer PET waste and exploration of acidolysis' by Patrícia Pereira *et al.*, *Green Chem.*, 2024, **26**, 1964–1974, https://doi.org/10.1039/D3GC03906D.

The authors propose a correction to Fig. 6, Table 1 and several sentences in the original article.

The reaction temperature used to generate the data in Fig. 6 of the published paper was not 200 °C, as was reported. The authors have not been able to verify definitively the reaction temperature used, so they conducted a new set of polyethylene terephthalate (PET) depolymerization experiments in acetic acid and in propanoic acid. The yields of terephthalic acid (TPA) at 200 °C were always less than 3% in these new experiments. Experiments at 230 °C provided the yields in the figure below. The figure and associated caption shown below should replace Fig. 6 in the published article.

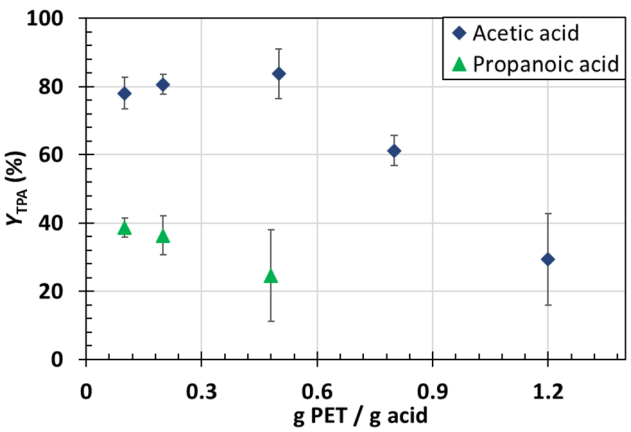

Fig. 6 Effect of PET/HOAc or propanoic acid ratio on TPA yield from PET acidolysis (230 °C, 2 h, 0.2 g_{PET}).

Several sentences in the published article require updating in consideration of the new reaction temperature and TPA yields.

In the second paragraph in section 3.3, "Y_{TPA} was above 80% at low PET/acetic acid ratios, but it decreased to almost zero as the ratio increased." should now read "Y_{TPA} was above 80% at low PET/acetic acid ratios, but it decreased to about 30% as the ratio increased." In addition, the sentence "Similar to acetic acid, the TPA yield with propanoic acid decreased from a high of 71 ± 13% at 0.1 g_{PET} g_{acid}^{-1} to 34 ± 4% at 0.48 g_{PET} g_{acid}^{-1}." has been changed to "Similar to acetic acid, the TPA yield with propanoic acid decreased as the PET/acetic acid ratio increased."

The entry in Table 1 for acetolysis has been updated, as shown below. Instead of 200 °C, the temperature should be 230 °C. The environmental energy impact value in the final column has been updated from 3.1 to 2.5.

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Table 1 Environmental energy impact metrics for PET depolymerization with different catalysts

Ref.	Reaction	Catalyst	Temp (°C)	Time (min)	$g_{PET}\ g_{solvent}^{-1}$	$\xi\ 10^4$ (°C min)
Below PET melting temperature						
This study	Hydrolysis	None	200	120	0.1	587
	Hydrolysis	Nitric acid, pH = 1.4	200	120	0.1	8.5
	Hydrolysis	TPA, 0.005 $mol_{TPA}\ g_{PET}^{-1}$	200	180	0.1	4.5
	Hydrolysis	4-FBA, 0.01 $mol_{4\text{-}FBA}\ g_{PET}^{-1}$	200	120	0.1	10.2
	Hydrolysis	Benzoic acid, 0.07 $mol_{BA}\ g_{PET}^{-1}$	200	120	0.1	7.0
	Hydrolysis	Acetic acid, 0.17 $mol_{AA}\ g_{PET}^{-1}$	200	120	0.1	4.4
	Hydrolysis	ZnI_2, pH = 5.0	200	120	0.1	4.0
	Acetolysis	None	230	120	0.2	2.5
Yang *et al.*[25]	Hydrolysis	PTSA, 16 $g_{catalyst}\ g_{PET}^{-1}$	150	90	0.05	6.1
Liu *et al.*[22]	Hydrolysis	$[HSO_3\text{-pmin}][HSO_4]^a$ 1/5 $g_{catalyst}\ g_{PET}^{-1}$	170	270	0.75	2.4
W. Yang *et al.*[7]	Hydrolysis	TPA, 0.005 $mol_{TPA}\ g_{PET}^{-1}$	220	180	0.125	5.6
Above PET melting temperature						
This study	Hydrolysis	None	270	30	0.1	5.7
	Hydrolysis	HY	270	30	0.1	1.3
Peng *et al.*[26]	Acetolysis	None	280	120	0.2	2.4

[a] Additional solvent [Bmim]Cl/water.

In the second paragraph of section 3.4, "The use of acetic acid as a solvent (with no catalyst) led to a value of $\xi = 3.1 \times 10^4$ °C min from acetolysis at 200 °C." should now read "The use of acetic acid as a solvent (with no catalyst) led to a value of $\xi = 2.5 \times 10^4$ °C min from acetolysis at 230 °C."

In the fifth paragraph of the Conclusions, "The present preliminary examination of acidolysis of PET showed that TPA yields of over 80% can be achieved at 200 °C from solid PET." has been changed to "The present preliminary examination of acidolysis of PET showed that TPA yields of over 80% can be achieved at 230 °C from solid PET."

The authors declare that neither the new data nor the updated text affects the primary conclusion from this portion of the article: acidolysis using acetic acid and propanoic acid shows promising results that merit further exploration.

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

