

## ERRATA

9781849731508 *Catalysis in Ionic Liquids*

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The following errors were present in the printed version of Chapter 3 of the above title:

On page 51, the phrase “the latter of which must have been derived from coupling” should read “the latter of which must have resulted from coupling”.

On page 56, the first reference to 53d should be 53c.

In the first paragraph of section 3.1.7, “Xmicromixers” should read “micromixers”.

On page 62, the phrase “the most efficient of which appear to be carboxyl-based systems” should read “the most efficient of which appear to be the carboxyl-based systems”.

On page 73, the phrase “Sonogoshira coupling-carbonylation-hydroaminatino sequence involving an 2-bromo-iodobenzene” should read “Sonogoshira coupling-carbonylation-hydroamination sequence involving a 2-bromo-iodobenzene”

On page 86, the first word of the penultimate line should read “enabled”.

On page 87, the phrase “This study demonstrated that, the nature of the applied ligand” should read “This study demonstrated that the nature of the applied ligand”.

On page 91, the phrase “a highly combination solvent” should read “a highly effective combination”.

On page 122, “is almost entirely selective towards benzylic alcohols but was essentially inactive towards aliphatic and secondary alcohols.” should read “was almost entirely selective towards benzylic alcohols but essentially inactive towards aliphatic and secondary alcohols.”

On page 130, “[ $(\text{CO}_2\text{H})\text{C}_1\text{mim}$ ]” should read “[ $(\text{CO}_2\text{H})\text{C}_1\text{mim}$ ]”.

On page 160, “the technology could be” should read “enable technology to be”.

On page 172, “ $\text{Sc}(\text{OTf})_3$  is crucial” should read “ $\text{Sc}(\text{OTf})_3$  was shown to be crucial”.

On page 178, the sentence “Brønsted acid modified halide-based ionic liquids have also been reported to act as acid based bifunctional catalyst for the solvent and metal-free fixation of  $\text{CO}_2$  with propylene oxide.” should read “Brønsted acid modified halide-based ionic liquids have also been reported to act as acid–base bifunctional catalysts for the solvent and metal-free fixation of  $\text{CO}_2$  with propylene oxide.”

On page 179, the phrase “fixation of  $\text{CO}_2$  with a range of epoxies” should read “fixation of  $\text{CO}_2$  with a range of epoxides”.

Also on page 179, the sentence “A structure efficiency study demonstrated that the hydroxyethyl group and bromide acts synergistically to facilitate the coupling.” should read “A structure–efficiency study demonstrated that the hydroxyethyl group and bromide act synergistically to facilitate the coupling.”

On page 180, “their high stable and gave good recyclability” should read “their high stability and good recyclability”.

Also on page 180, “1.5 mol% catalysts” should read “1.5 mol% catalyst”.

On page 183, “b-bromoalkoxide” should read “ $\beta$ -bromoalkoxide” and “bis(imidazolium) based” should read “bis(imidazolium)-based”.

On page 187, the phrase “the alkylation of *iso*-butane with 1-butene [Equation (3.4.17)] to give conversions, C8-selectivity and trimethylpentane/dimethylhexane (TMP/DMH) selectivity” should read “the alkylation of *iso*-butane with 1-butene [Equation (3.4.17)] to give conversions, C8-selectivities and trimethylpentane/dimethylhexane (TMP/DMH) selectivities”.

On page 201 the sentence “Although the use of ionic liquids for organocatalysed reactions has led to high ee’s and enabled catalyst loadings to be reduced leaching of the catalyst during extraction of the product often results in poor recyclability.” should read “Although the use of ionic liquids for organocatalysed reactions has led to high ee’s and enabled catalyst loadings to be reduced, leaching of the catalyst during extraction of the product often results in poor recyclability.”

On page 202, the phrase “even in the presence of acid additives<sup>466</sup> the same catalyst” should read “even in the presence of acid additives,<sup>466</sup> the same catalyst”.

Also on page 202, the phrase “recovered addition of diethyl ether” should read “recovered by addition of diethyl ether”.

On page 205, “and, in addition” should read “; in addition”.

On page 212, the units for level of ruthenium contamination in the organic phase should be  $\mu\text{g mg}^{-1}$ .

On page 213, the phrase “a much smaller drop in conversions from 85% to 75%” should read “a much smaller drop in conversion from 85% to 75%”.

On page 223, “[HSO4]” should read “[HSO<sub>4</sub>]”.

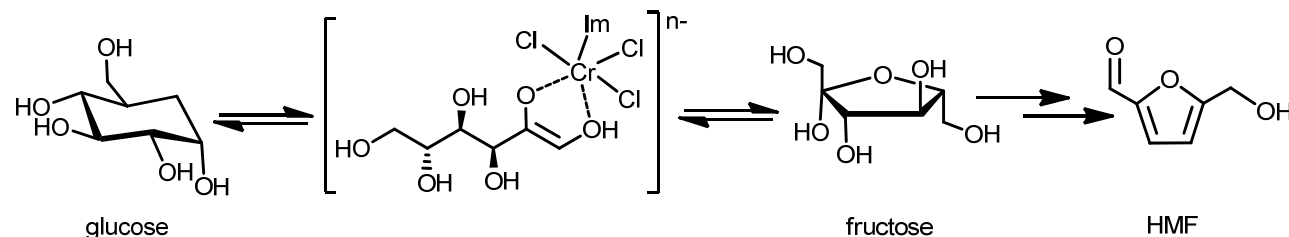
Also on page 223, the sentence “Phase separation of the polymer and ionic liquid phase separated enable the system recycled four times with no loss in efficiency” should read “Phase separation of the polymer and ionic liquid enabled the system to be recycled four times with no loss in efficiency”.

On page 237, “Naffion”, should read “Nafion”.

On page 239, *Miscanthus giganteus* should have been italicised.

Also on page 239, the phrase “that the rate determining H-migration” should read “the rate determining H-migration”.

The structure of the intermediate in Scheme 3.6.4 was incorrect. The corrected scheme is shown below:



**Scheme 3.6.4** Proposed CrCl<sub>2</sub>-catalysed isomerization of glucopyranose to fructofuranose followed by dehydration to HMF.

On page 241, the sentence “Brønsted acid ionic liquids in combination with metal salts catalyse the conversion of microcrystalline cellulose to HMF; the most efficient system of [SO<sub>3</sub>HC<sub>4</sub>mim][MeSO<sub>3</sub>] and CuCl<sub>2</sub> in [C<sub>2</sub>mim][OAc] gave 70% conversions.” should not be present.

On page 244, there is a comma missing after “these” on the first line of the second paragraph.

On page 254, “re-deposits” should read “deposited”.

On page 258, the phrase “may be due to different the solubilities” should read “may be due to the different solubilities”.

On page 267 the sentence “Ionic liquid-based biphasic hydrogenation of toluene in [C<sub>4</sub>C<sub>1</sub><sup>2</sup>mim][NTf<sub>2</sub>] showed a marked dependence of catalytic activity on the stabiliser and the phosphine-functionalised ionic liquid-stabilised RhNPs experienced an induction period over the first 3–4 cycles and then gave consistently high conversions to methylcyclohexane over the next seven runs with no loss in activity; this induction was proposed to be due to incomplete reduction of the rhodium precursor.” should read “Ionic liquid-based biphasic hydrogenation of toluene in [C<sub>4</sub>C<sub>1</sub><sup>2</sup>mim][NTf<sub>2</sub>] showed a marked dependence of catalytic activity on the nature of the stabiliser and even though the phosphine-functionalised ionic liquid-stabilised RhNPs experienced an induction period over the first 3–4 cycles consistently high conversions to methylcyclohexane were obtained over the next seven runs with no loss in activity; this induction was proposed to be due to incomplete reduction of the rhodium precursor.”

On page 268 “PAR<sub>3</sub>-type mono-and diphosphines” should read “PAR<sub>3</sub>-type mono- and diphosphines”.

On page 276 the text “For example, PdCl<sub>2</sub>/[N≡CC<sub>3</sub>mim][BF<sub>4</sub>] is stable and shows no sign of decomposition during the Suzuki–Miyaura cross-coupling between iodobenzene and phenyl boronic acid and recycles efficiently over six runs whereas its unfunctionalised counterpart PdCl<sub>2</sub>/[C<sub>4</sub>mim][BF<sub>4</sub>] turns black and is essentially inactive after three runs due to facile leaching of palladium (ICP analysis)” should read “For example, PdCl<sub>2</sub>/[(N≡CC<sub>3</sub>)mim][BF<sub>4</sub>] was stable and showed no sign of decomposition during the Suzuki–Miyaura cross-coupling between iodobenzene and phenyl boronic acid and recycled efficiently over six runs whereas its unfunctionalised counterpart PdCl<sub>2</sub>/[C<sub>4</sub>mim][BF<sub>4</sub>] turned black and was essentially inactive after three runs due to facile leaching of palladium (ICP analysis)”.

Also on page 276, the phrase “with PdCl<sub>2</sub> as catalyst precursors” should read “with PdCl<sub>2</sub> as catalyst precursor”.

On page 277 the catalyst Pd@[N≡CC<sub>3</sub>pyr][NTf<sub>2</sub>] should have been Pd@[N≡CC<sub>3</sub>pyr][NTf<sub>2</sub>] and the phrase “which typically required 2–5 mol%” should have been in parentheses.

The correct DOI for ref. 524 is DOI: 10.1039/c3gc42477d.

Part (d) of ref. 546 was missing and should read as follows: for a tutorial review on the conversion of glucose into value-added product in water and ionic liquid see: J. Song, H. Fan, J. Ma and B. Han, *Green Chem.*, 2013, **15**, 2619.

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