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## Correction: Improving the selectivity of hydrogenation and hydrodeoxygenation for vanillin by using vacancy-coupled Ru–N<sub>3</sub> single atoms immobilized on defective boron nitride

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Correction for 'Improving the selectivity of hydrogenation and hydrodeoxygenation for vanillin by using vacancy-coupled Ru–N<sub>3</sub> single atoms immobilized on defective boron nitride' by Haoxiang Fan *et al.*, *J. Mater. Chem. A*, 2023, <https://doi.org/10.1039/d3ta01384g>.

The authors regret that the synthesis method for Ru-SA/C<sub>3</sub>N<sub>4</sub> listed in Section 2.2. in their manuscript is incorrect, as it mistakenly repeats the synthesis protocol of Ru-SA/pBN in Section 2.1. The authors also regret that the wording for the synthesis of Ru-SA/NC in Section 2.3. is slightly unclear. The corrected synthesis methods for Ru-SA/C<sub>3</sub>N<sub>4</sub> and Ru-SA/NC are provided herein.

### 2.2. Synthesis of Ru-SA/C<sub>3</sub>N<sub>4</sub>

First, the g-C<sub>3</sub>N<sub>4</sub> was synthesized by heating urea in a closed alumina crucible in a muffle furnace at 600 °C (heating rate, 5 °C min<sup>-1</sup>) for 2 hours. Ru-SA/C<sub>3</sub>N<sub>4</sub> was prepared by adding 0.5 mL ruthenium acetylacetonate ethanol solution (1 mg mL<sup>-1</sup>) to a dispersion of g-C<sub>3</sub>N<sub>4</sub> (50 mg g-C<sub>3</sub>N<sub>4</sub> in 50 mL ethanol). The remaining steps were the same as the preparation of Ru-SA/pBN-V<sub>N</sub>.

### 2.3. Synthesis of Ru-SA/NC

First, trimesic acid (0.12 g) and DCDA (1.2 g) were mixed by grinding and heat-treated from room temperature to 900 °C with a heating rate of 5 °C min<sup>-1</sup> under a N<sub>2</sub> flow. After calcining for a further 2 hours at the desired temperature, the sample was naturally cooled to room temperature, denoted as NC. Ru-SA/NC was prepared by adding 0.5 mL ruthenium acetylacetonate ethanol solution (1 mg mL<sup>-1</sup>) to a dispersion of NC (50 mg NC in 50 mL of ethanol). The remaining steps were the same as the preparation of Ru-SA/pBN-V<sub>N</sub>.

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

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