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CORRECTION

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Correction: Biomass-derived interconnected carbon nanoring electrochemical capacitors with high performance in both strongly acidic and alkaline electrolytes

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DOI: 10.1039/c7ta90196hCorrection for 'Biomass-derived interconnected carbon nanoring electrochemical capacitors with high
performance in both strongly acidic and alkaline electrolytes' by Xianjun Wei *et al., J. Mater. Chem. A*, 2017,
5, 181–188.

The authors regret that eqn (3) in the published article is incorrect. The equation should appear as follows:

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$$E = \frac{0.125V^2C_1}{3.6}$$
(3)

As a result of this error, the calculated values for energy density and power density are also incorrect. The values for energy density and power density given in the article should appear as follows:

Abstract

"...and a high energy density of 12.9–6.0 W h kg⁻¹ with a power density of 124.8–6534.0 W kg⁻¹ in 1 mol L⁻¹ H₂SO₄ aqueous electrolyte. In 6 mol L⁻¹ KOH electrolyte, they still exhibit high specific capacitances of 350.0 F g⁻¹ (1 A g⁻¹) and 246.9 F g⁻¹ (30 A g⁻¹), excellent cycling stability (95.06% and 91.1% of capacitance retention after 1000 (1 A g⁻¹) and 10 000 (30 A g⁻¹) cycles, respectively), a high energy density of 12.3 W h kg⁻¹ and a power density of 6459.0 W kg⁻¹."

Introduction

(page 2, left hand column, 2nd paragraph)

"Until now... high energy densities (12.9 W h kg⁻¹ and 12.3 W h kg⁻¹) and high power densities (6534.0 W kg⁻¹ and 6459.0 W kg⁻¹) in 1 mol L⁻¹ H₂SO₄ and 6 mol L⁻¹ KOH, respectively."

Results and discussion

(page 5, right hand column, 1st paragraph)

"The TDICN-based capacitor presents energy densities of 12.9–6.0 W h kg⁻¹ at power densities of 124.8–6534.0 W kg⁻¹..." (page 5, right hand column, 2^{nd} paragraph)

"The Ragone plot (the inset of Fig. 4B) shows energy densities of 12.3–5.4 W h kg⁻¹ at power densities of 124.5–6459.0 W kg⁻¹..."

Conclusions

"That is to say, TDICNs can show high performance in the full pH range: as high as 532.5 F g⁻¹ and 350.0 F g⁻¹ specific capacitance, 12.9 W h kg⁻¹ and 12.3 W h kg⁻¹ energy density, and 6534.0 W kg⁻¹ and 6459.0 W kg⁻¹ power density in 1 mol L⁻¹ H₂SO₄ and 6 mol L⁻¹ KOH. Such a supercapacitor with high power density up to 12.9 W h kg⁻¹ has enough energy to power some electronic equipment such as a commercial pedometer."

Additionally, on page 2, right hand column, last line, the sentence "And 1.03 is obtained in our case, suggesting a weakly ordered graphitic microstructure with a relatively good electronic conductivity" should read "And 1.03 is obtained in our case, suggesting some graphitic domains rather than an ordered graphitic microstructure with a relatively good electronic conductivity".

Finally, in the ESI, Table S1 has been updated to show the corrected values of power density (P) and energy density (E) for the TDICN samples reported in the article (final 4 entries).

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

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