Supporting Information

Insights into sustainable glucose oxidation using magnetically recoverable biocatalysts

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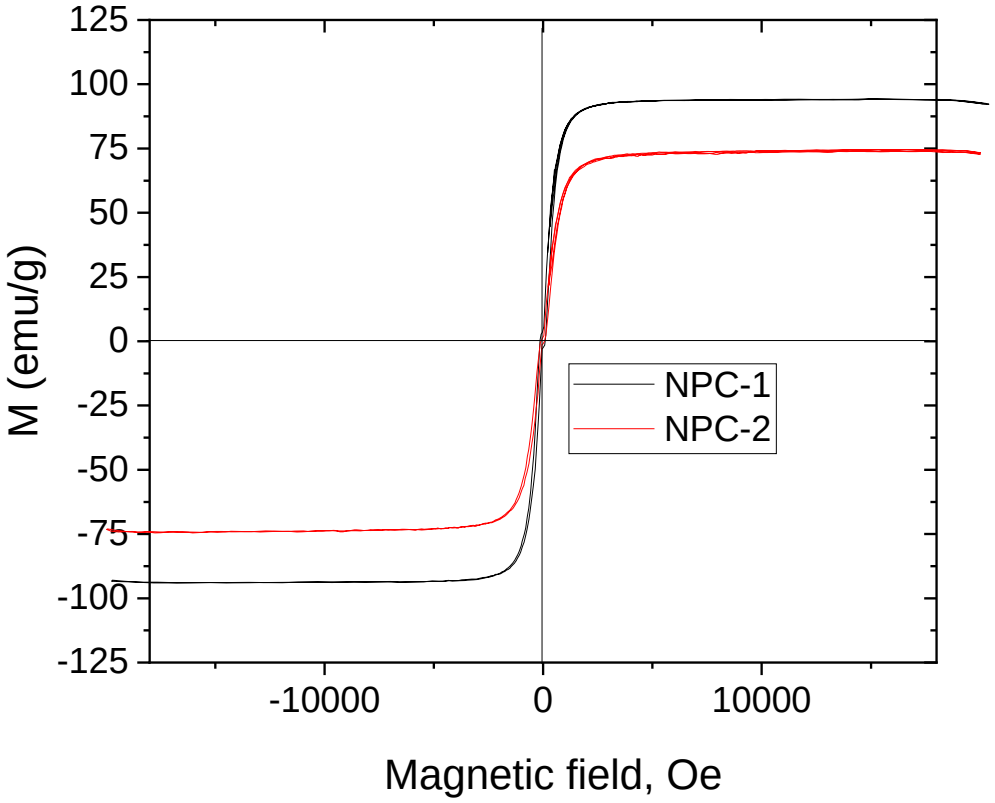

Figure S1. Hysteresis loops of NPC-1 and NPC-2.

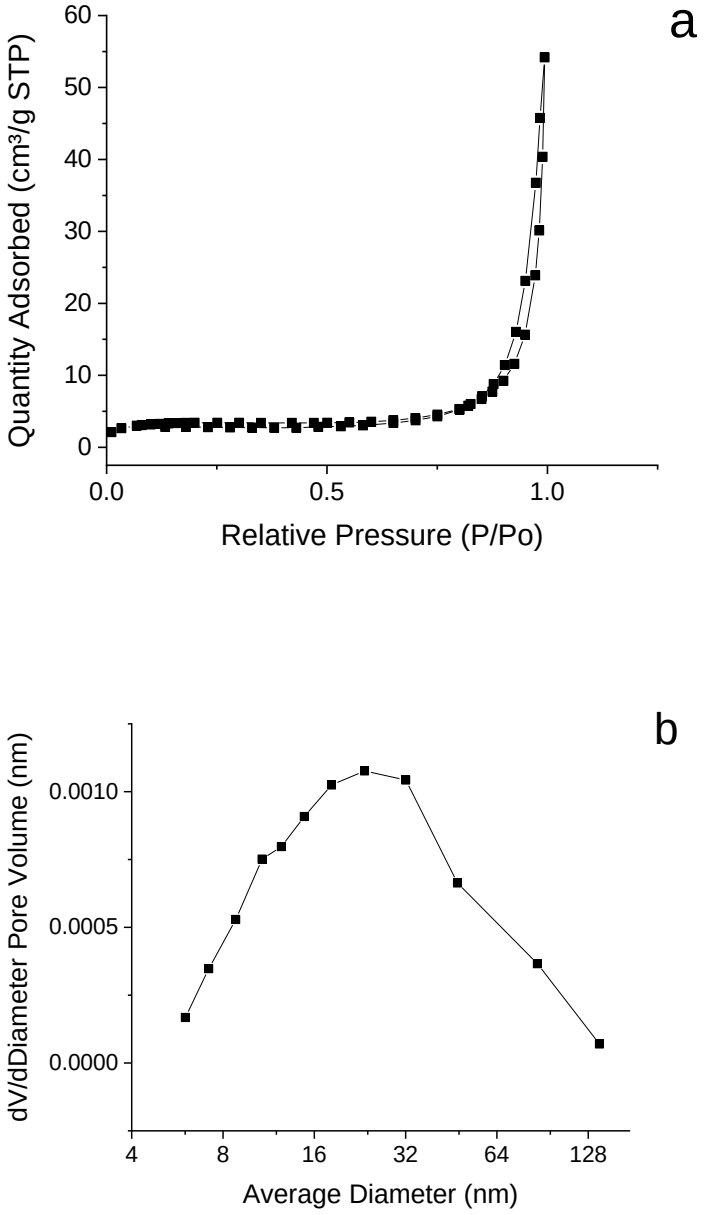

Figure S2. Nitrogen adsorption-desorption isotherms (a) and pore-size distributions (dV/dD) based on the BJH desorption data using the Faas correction (b) of NPC-2.

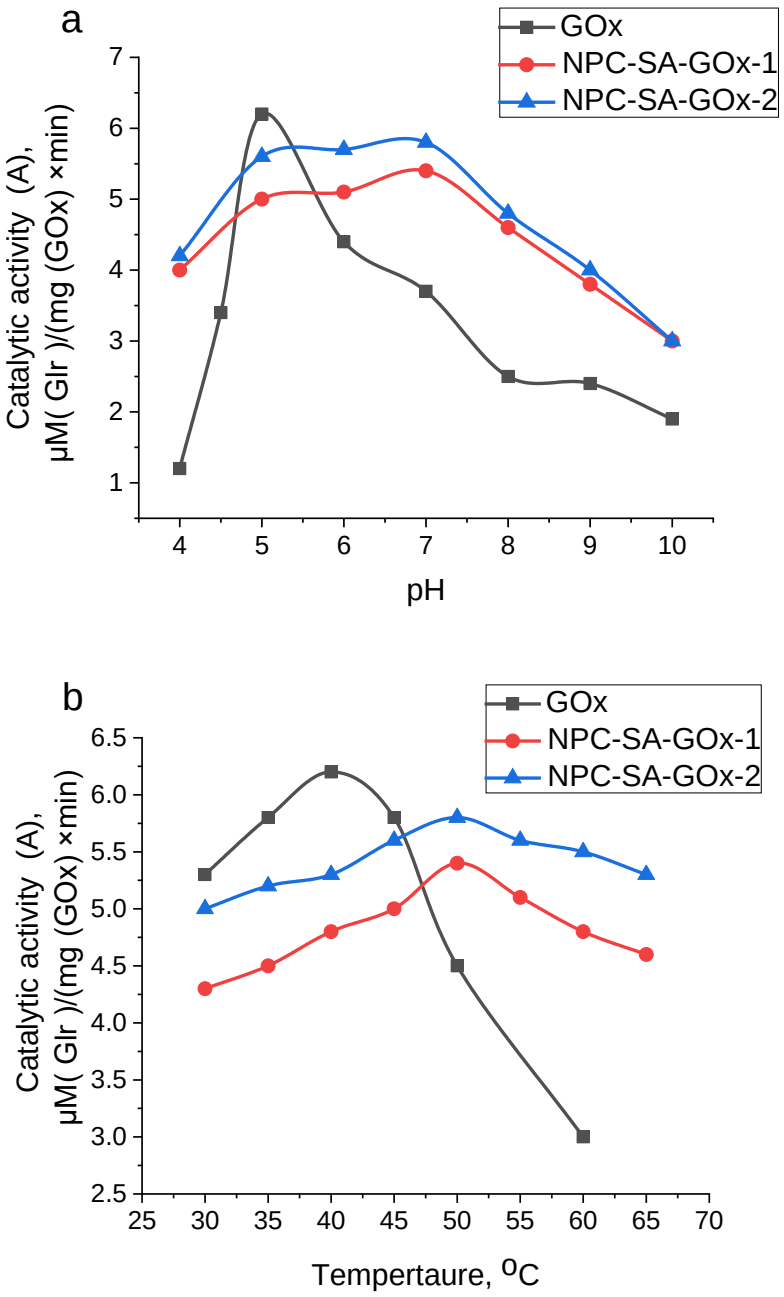

Figure S3. Dependencies of the catalytic activities on pH (a) and temperature (b) in the D-glucose oxidation.

The highest catalytic activity of GOx in optimal conditions (pH 5, 40 °C) is 6.2 μM(Gl_r)/(mg (GOx) ×min) (according to Eq. 2). For NPC-SA-GOx-1 and NPC-SA-GOx-2, conversions of D-glucose are 87 and 94%, respectively (similar to relative activities), while catalytic activities are

5.4 μM(Gl_r)/(mg (GOx) ×min) and 5.8 μM(Gl_r)/(mg (GOx) ×min), respectively at 50°C and pH 7. In these conditions, native GOx shows only the 4.5 μM(Gl_r)/(mg (GOx) ×min) activity and the D-glucose conversion of 73%.