

Article

## Study of Alginate-Supported Ionic Liquid and Pd Catalysts

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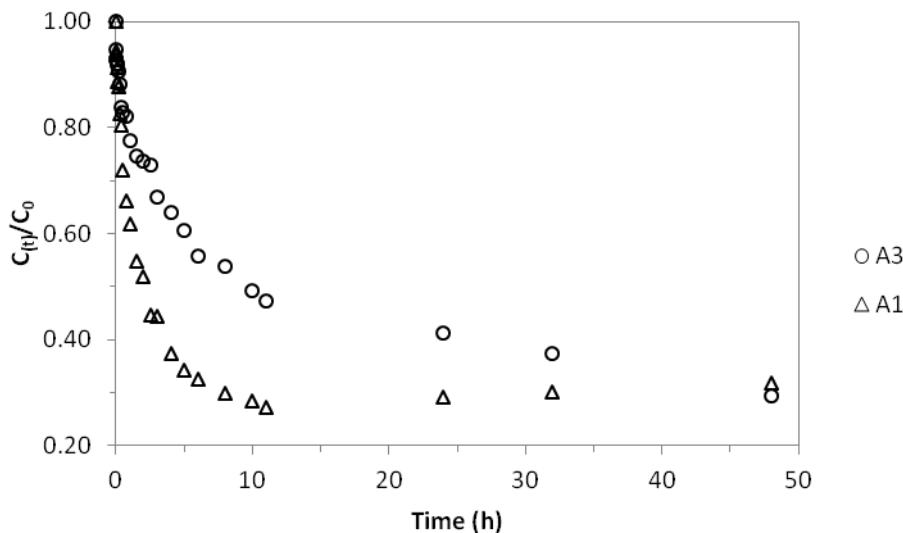
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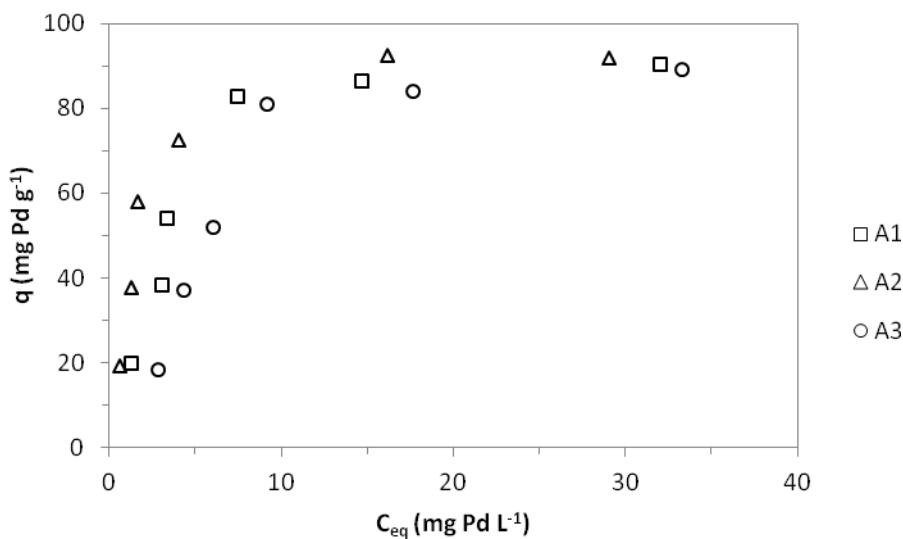
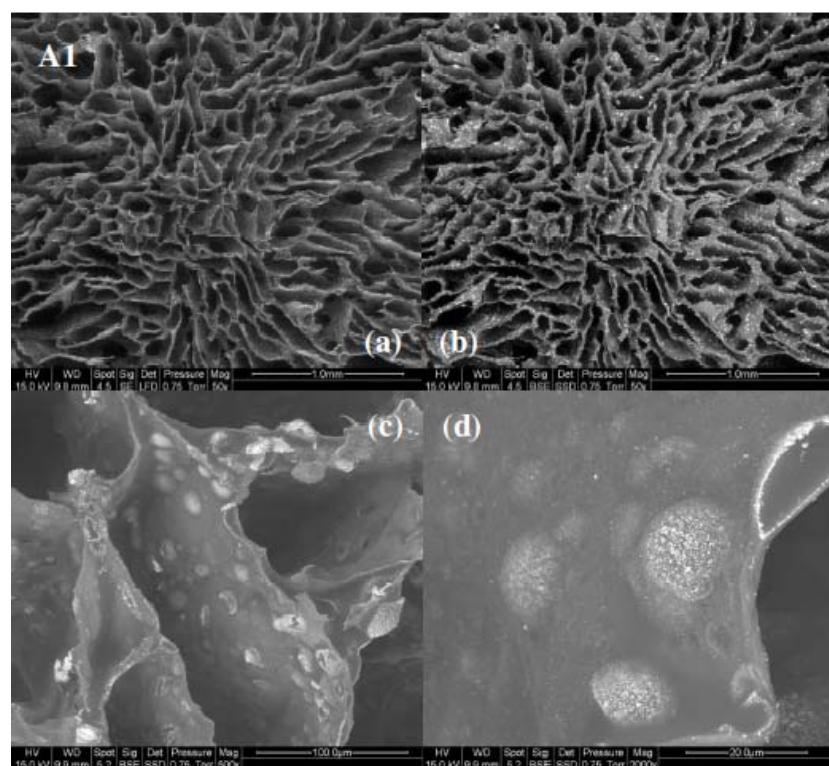
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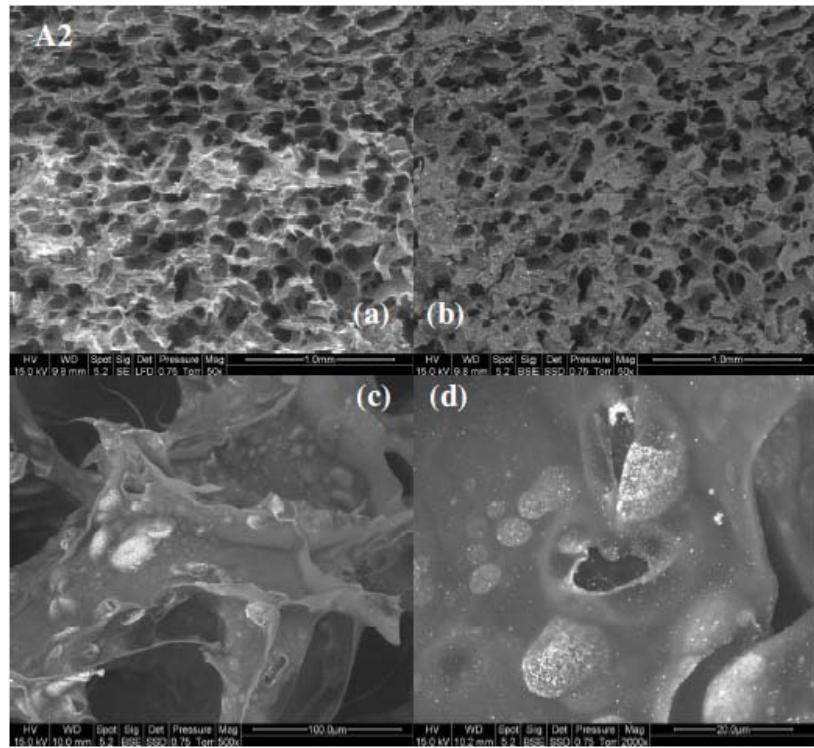
### Supplementary Information

**Figure S1.** Comparison of Pd(II) uptake kinetics for **A1** and **A3** samples (pH 1).

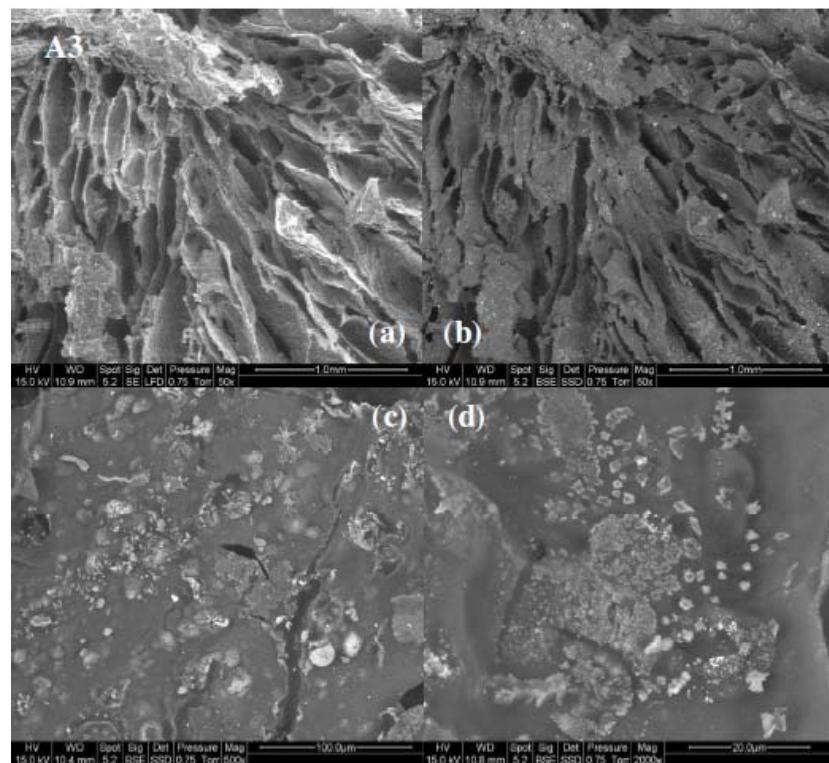


**Figure S2.** Comparison of Pd(II) sorption isotherm for A1, A2 and A3 samples (pH 1).**Figure S3.** SEM photographs of A1 catalytic material (bar scale: (a) and (b) 1 mm, (c) 100  $\mu$ m and (d): 20  $\mu$ m; (a): secondary electrons for morphology observations; (b-d) backscattered electrons for phase contrast determination of heavy elements).

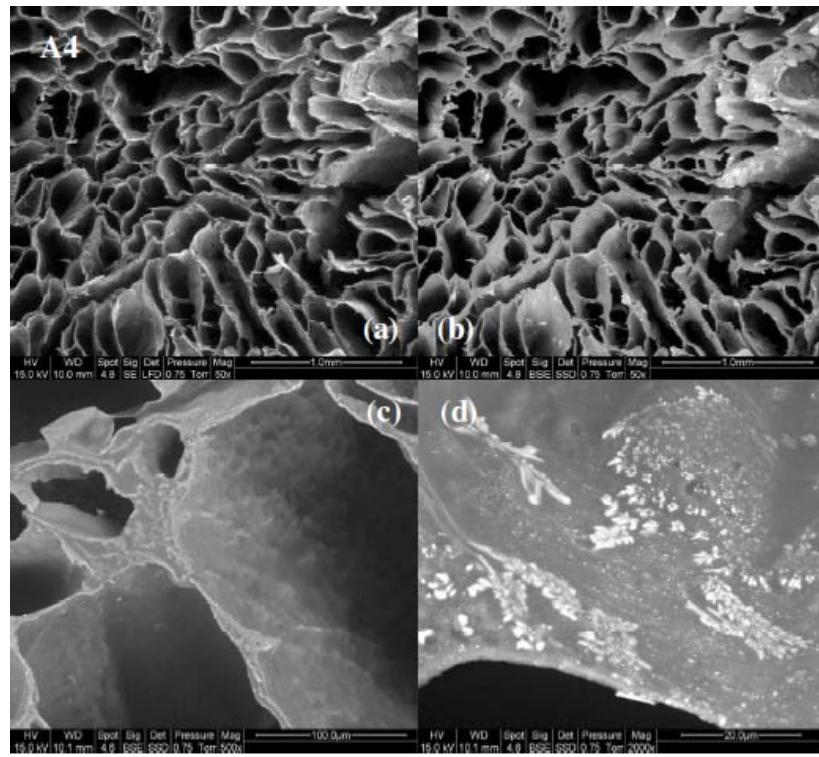
**Figure S4.** SEM photographs of A2 catalytic material (bar scale: (a) and (b) 1 mm, (c) 100  $\mu$ m and (d): 20  $\mu$ m; (a): secondary electrons for morphology observations; (b-d) backscattered electrons for phase contrast determination of heavy elements).



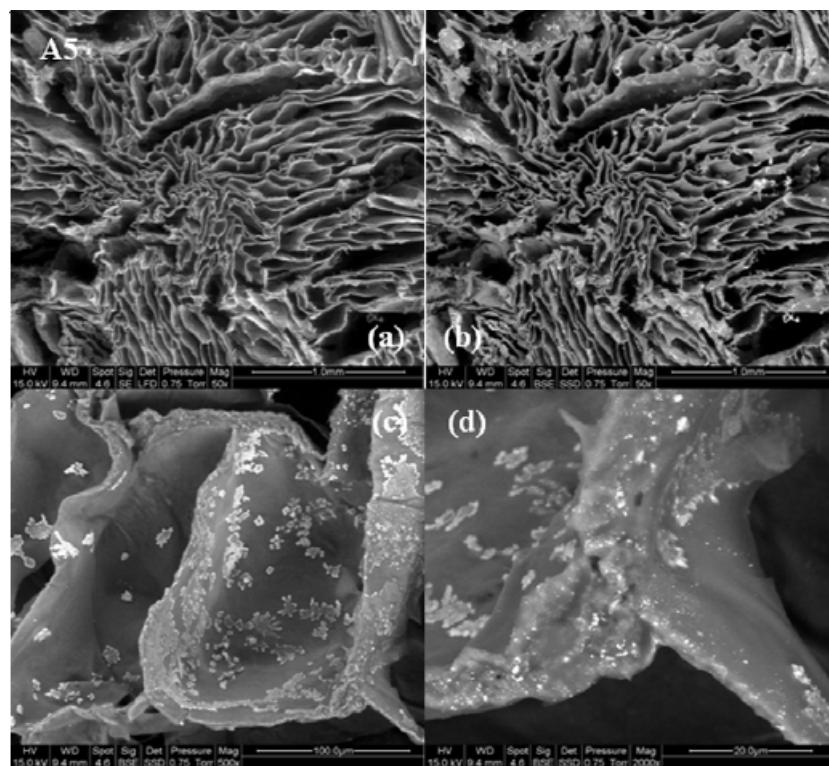
**Figure S5.** SEM photographs of A3 catalytic material (bar scale: (a) and (b) 1 mm, (c) 100  $\mu$ m and (d): 20  $\mu$ m; (a): secondary electrons for morphology observations; (b-d) backscattered electrons for phase contrast determination of heavy elements).



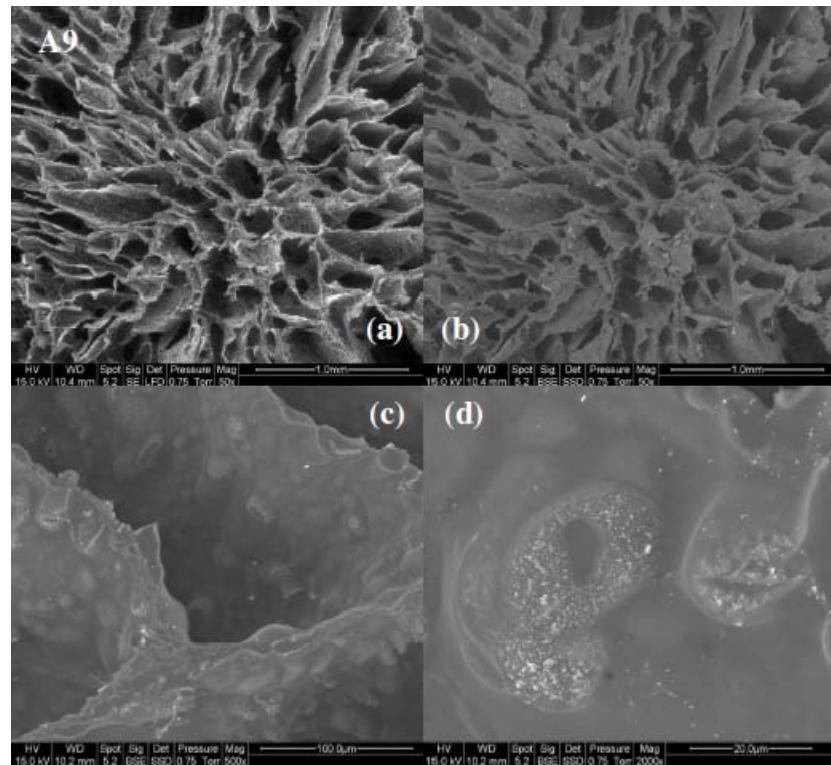
**Figure S6.** SEM photographs of A4 catalytic material (bar scale: (a) and (b) 1 mm, (c) 100  $\mu$ m and (d): 20  $\mu$ m; (a): secondary electrons for morphology observations; (b-d) backscattered electrons for phase contrast determination of heavy elements).



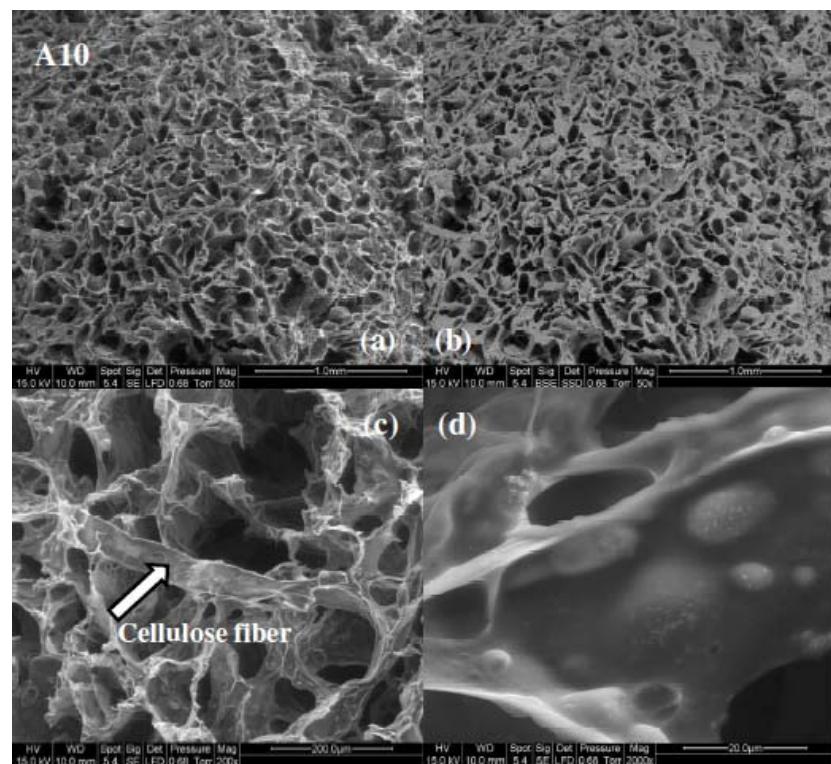
**Figure S7.** SEM photographs of A5 catalytic material (bar scale: (a) and (b) 1 mm, (c) 100  $\mu$ m and (d): 20  $\mu$ m; (a): secondary electrons for morphology observations; (b-d) backscattered electrons for phase contrast determination of heavy elements).



**Figure S8.** SEM photographs of **A9** catalytic material (bar scale: (a) and (b) 1 mm, (c) 100  $\mu$ m and (d): 20  $\mu$ m; (a): secondary electrons for morphology observations; (b-d) backscattered electrons for phase contrast determination of heavy elements).



**Figure S9.** SEM photographs of **A10** catalytic material (bar scale: (a) and (b) 1 mm, (c) 200  $\mu$ m and (d): 20  $\mu$ m; (a): secondary electrons for morphology observations; (b-d) backscattered electrons for phase contrast determination of heavy elements).



**Figure S10.** Experimental set-up for the investigation of catalytic hydrogenation of 4-NA using alginate-supported IL and Pd materials.

