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CORRECTION

Correction to: InSitu Formation of NiCAl2O3 Catalyst from MOFs@Al2O3 Composite for Furfuryl Alcohol Hydrogenation to Tetrahydrofurfuryl Alcohol

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Correction to: Catalysis Letters (2022)
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The original version of this article unfortunately contained some mistakes in the third paragraph of the Sect. 3.2 *Catalytic Hydrogenation of Furfuryl Alcohol* and in the Fig. 9. The correct paragraph and the Fig. 9 are as follow,

The stability of the catalyst is another crucial aspect for a catalyst in consideration of sustainability, so the stability of both Ni-C-Al2O3 and Ni/Al2O3 is tested for four runs. As shown in Fig. 9, the conversion of FA has a slight decrease in the second run (from 99.9 to 97.3%) and can still keep above 90% after the fourth run, while the selectivity to THFA stays 96.8% at the last run. As for Ni/ Al2O3, the conversion of FA drops dramatically in the second run, from 95.7 to 85.3%, and only 69.9% conversion could be achieved at the fourth run. It is can be concluded that Ni-C-Al2O3 has a good stability as a catalyst in the reaction. According to previous reports [31, 32], the carbon matrix derived from the ligands of MOFs can stabilize and prevent the accumulation of the metal particles during the application process, which prolongs the lifetime of the catalyst. This is evidenced by TEM images of used Ni-C-Al2O3 catalyst that no obvious change could be observed in comparison with TEM images of fresh Ni-C-Al2O3 catalyst (Fig. S6). And the average Ni particle size of used Ni-C-Al2O3 is 7.38 nm, which is similar to fresh one. The metal leaching test illustrates that the content of Ni in used Ni-C-Al2O3 cata-lyst is nearly the same as that in fresh Ni-C-Al2O3 (Table S2).

The XRD patterns of used catalysts (Fig. S7) show that the peaks ascribed to Ni in used Ni/Al2O3 become sharper than those of the fresh one, indicating the appearance of larger Ni particle size. The increase Ni particle size should be caused by the particle aggregation and consequently be responsible for the decreased activity. Meanwhile, the used Ni-C-Al2O3 has almost the same patterns as the fresh one, suggesting the well-preserved structure of Ni-C-Al2O3. And as displayed by XPS (Fig. S8), the slight decrease of FA conversion over Ni-C-Al2O3 should be ascribed to the oxidation of Ni during reusing test which is inevitable.

The original article has been corrected now.

The online version of the original article can be found at https://doi.org/10.1007/s10562-021-03851-x.

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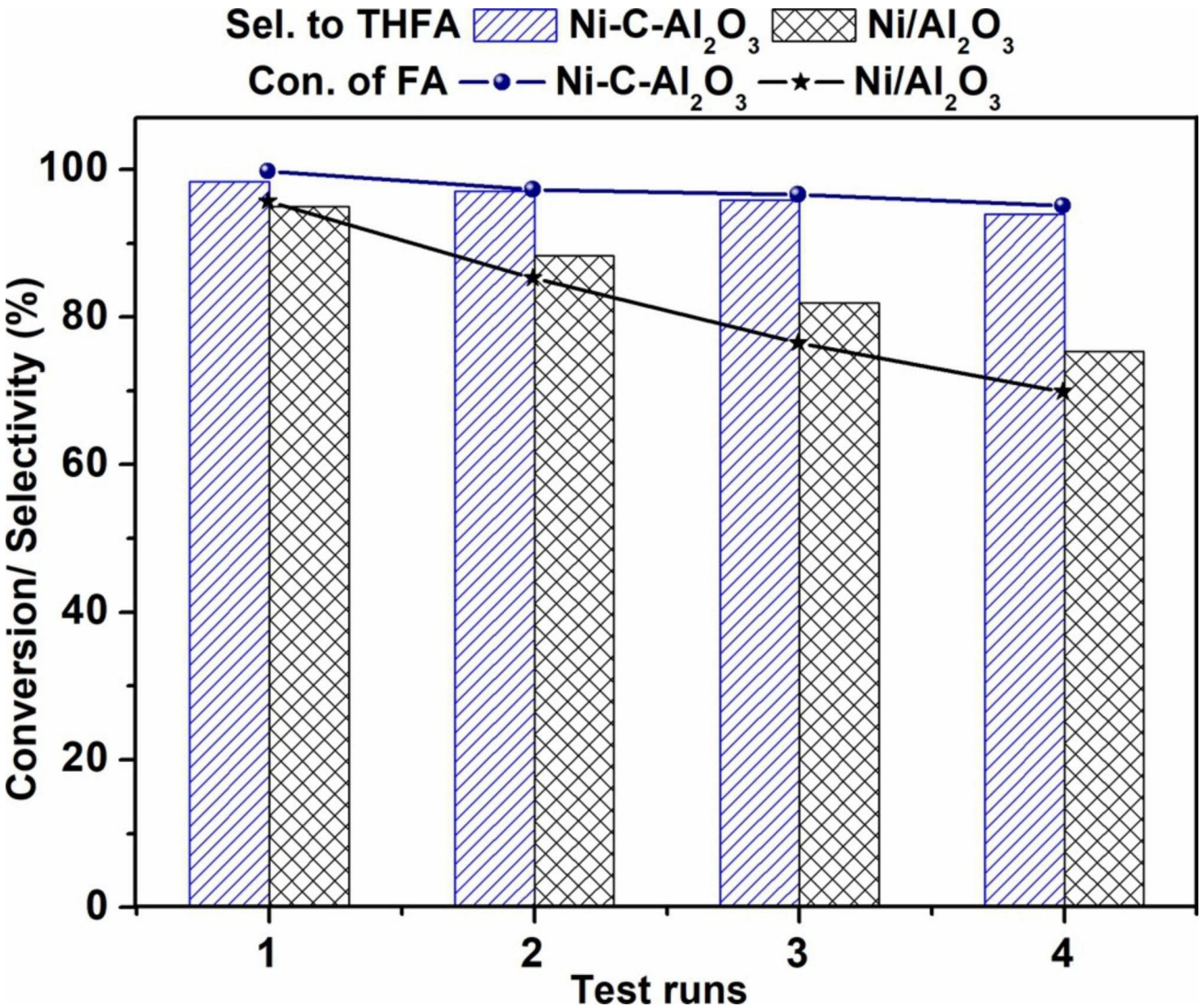

Fig. 9 Reuse of Ni-C-Al2O3 and Ni /Al2O3 in furfuryl alcohol hydrogenation (reaction conditions: 120 °C; 30 min; 4 MPa hydrogen pressure.)