Erratum

Silica-Supported PdGa Nanoparticles: Metal Synergy for Highly Active and Selective CO_2-to-CH_3OH Hydrogenation (JACS Au (2021) 1:4 (450−458) DOI: 10.1021/jacsau.1c00021)

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Addition/Correction

Correction to “Silica-Supported PdGa Nanoparticles: Metal Synergy for Highly Active and Selective CO_2-to-CH_3OH Hydrogenation”

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In the original version of this article, Table 1, the main text, and the Supporting Information contain errors due to the inversion of CO and H_2 chemisorption for $Pd@SiO_2$. The correct values for Table 1 are as follows:

Table 1

material	CO chemisorption, mol_{CO} mol_{Pd}^{-1} ($Đ_{CO}$)	H_2 chemisorption, mol_{H2} mol_{Pd}^{-1}	H/CO ratio
$Pd@SiO_2$	0.93 (93%)	0.62	1.3

On page 452, column 1 (lines 12−23) reads: “H_2 and CO chemisorption show an uptake of 0.91 mol_{H2} mol_{Pd}^{-1} and 0.61 mol_{CO} mol_{Pd}^{-1}, respectively (Table 1, Supporting Information S6). Considering a 1:1 CO/Pd stoichiometry,[32] the dispersion from CO chemisorption ($Đ_{CO}$) equals 61%, in a reasonable agreement with the dispersion from TEM ($Đ_{TEM} \approx 70\%$; Supporting Information S9).[32] While H_2 chemisorption is not effective for a determination of the metal dispersion of Pd nanoparticles due to the formation of a stable bulk hydride with larger particles (>2.6 nm),[32] a comparison of the H_2 uptake and $Đ_{CO}$ would correspond to approximately three hydrogen atoms per surface Pd.”

This should be corrected to “H_2 and CO chemisorption show an uptake of 0.62 mol_{H2} mol_{Pd}^{-1} and 0.93 mol_{CO} mol_{Pd}^{-1}, respectively (Table 1, Supporting Information S6). Considering a 1:1 CO/Pd stoichiometry,[32] the dispersion from CO chemisorption ($Đ_{CO}$) equals 93%, higher than would be expected from TEM ($Đ_{TEM} \approx 70\%$; Supporting Information S9).[32] While H_2 chemisorption is not effective for a determination of the metal dispersion of Pd nanoparticles due to the formation of a stable bulk hydride with larger particles (>2.6 nm),[32] a comparison of the H_2 uptake and $Đ_{CO}$ would correspond to approximately ca. 1.3 hydrogen atoms per surface Pd.”

Furthermore, in the Supporting Information, the corresponding corrections have been made in caption titles and graph axes, i.e., change CO for H_2 and H_2 for CO in Figures S13−S16. In addition, mistakes relating to the units in both the figure and caption of Figure S42 have been addressed. The Supporting Information has been updated accordingly. The conclusions of the work are not affected.

ASSOCIATED CONTENT

Supporting Information

The Supporting Information is available free of charge at https://pubs.acs.org/doi/10.1021/jacsau.2c00421.

Complete experimental procedures, general considerations, spectroscopic methods, and associated data (PDF)

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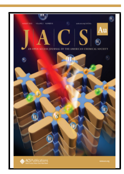

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