Supplementary materials for

Photocatalysts based on graphite-like carbon nitride with a low content of rhodium and palladium for the hydrogen production under the visible light

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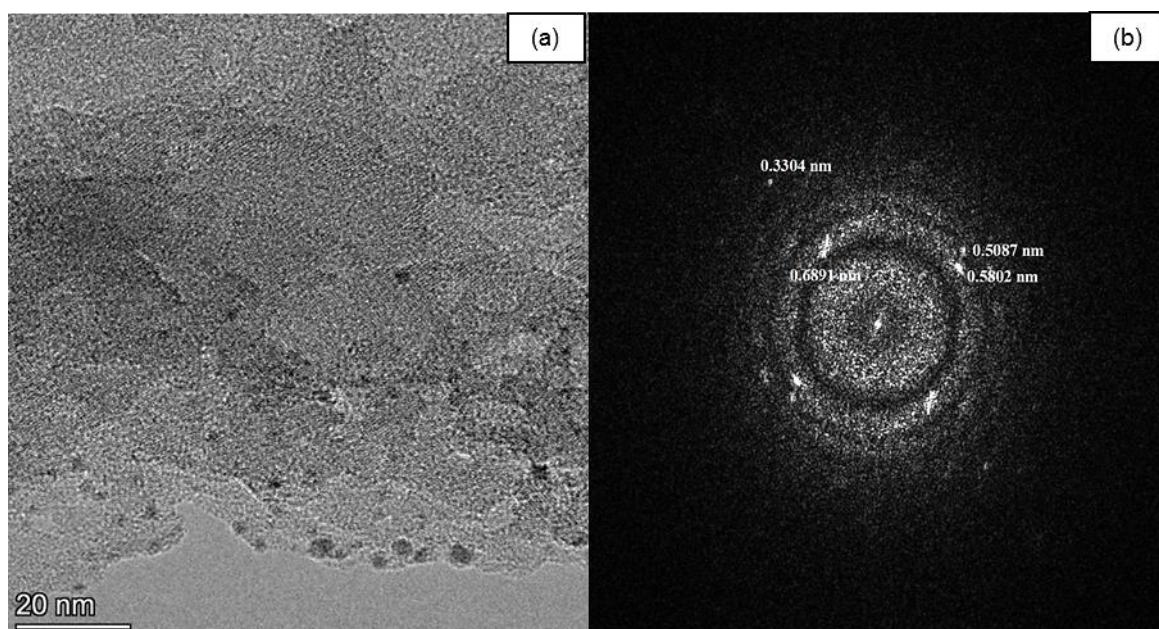* Correspondence: kozlova@catalysis.ru

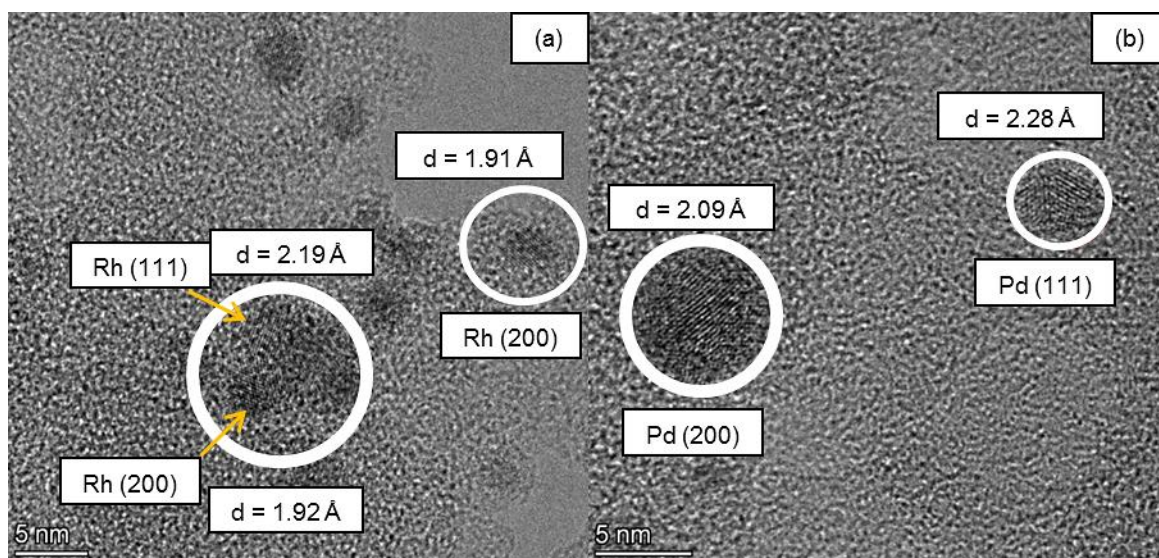**Figure S1.** (**a,b**) HRTEM images of 0.5% $Rh/g\text{-}C_3N_4$ and Fourier transform from the highlighted image

Figure S2. (**a,b**) HRTEM images of 0.5% $Rh/g\text{-}C_3N_4$ and 0.5% $Pd/g\text{-}C_3N_4$
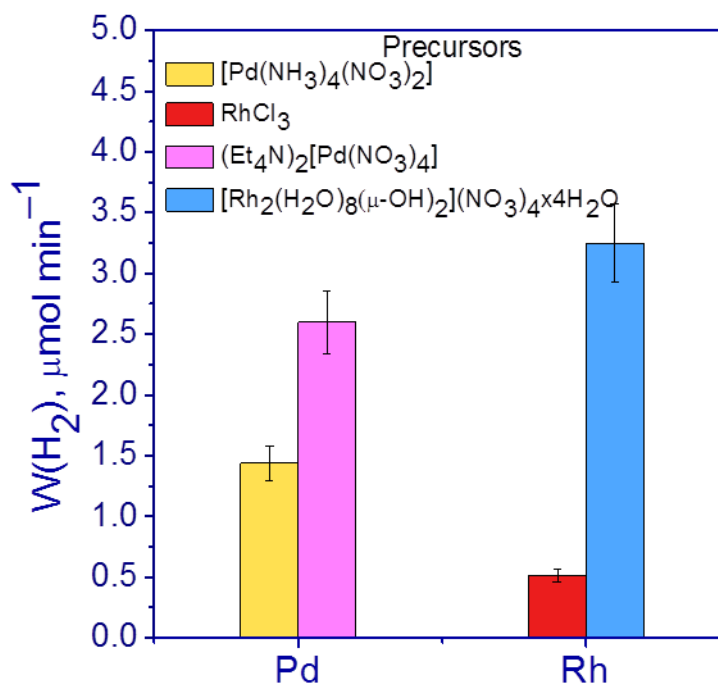
Figure S3. H_2 evolution rates for photocatalysts 0.5% Pd/g-C_3N_4 and 0.5% Rh/g-C_3N_4 synthesized from different metal

precursors.

Table S1. Actual metal content in the samples determined with ICP AES

Sample	Pd content, wt.%	Rh content, wt.%
0.1% Pd/g-C_3N_4	0.093 ± 0.009	-
0.5% Pd/g-C_3N_4	0.45 ± 0.05	-
0.5% Pd/g-C_3N_4 ([Pd(NH$_3$)$_4$(NO$_3$)$_2$])	0.053 ± 0.05	-
0.1% Rh/g-C_3N_4	-	0.13 ± 0.01

Table S2. Surface element atomic concentration calculated based on XPS data of fresh 0.5% Pd/g-C_3N_4 and 0.5% Rh/g-C_3N_4 photocatalysts and these photocatalysts after cyclic runs in 0.1 M NaOH and water (Figures 8-9).

Catalyst	%, C (C_3N_4)	%, C (carbon)	%, N (C_3N_4)	%, O	%, Pd
0.5%Pd-fresh	27.4	32.3	34.3	6.0	0.02
0.5%Pd-NaOH	27.0	33.6	31.8	7.6	0.01
0.5%Pd-water	25.6	38.1	27.4	8.9	0.02
	%, C (C_3N_4)	%, C (carbon)	%, N (C_3N_4)	%, O	%, Rh
0.5%Rh-fresh	24.0	40.7	26.5	8.6	0.22
0.5%Rh-NaOH	20.9	52.6	15.0	11.4	0.10
0.5%Rh-water	25.6	39.4	26.4	8.5	0.09