Supporting Information

Catalytic oxidation of methyl bromide using ruthenium-based catalysts

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Table S1. The XPS data of the fresh and used Ru/TiO_2 catalysts

Catalyst	Ru_{cus} (at.%)	$Ru_{cus+}O_{ot}$ (at.%)	$Ru^{4+}{}_{satellite}$ (at.%)	Ru/Ti
Fresh Ru/TiO_2	59.6	23.5	16.9	0.022
Used Ru/TiO_2	52.8	27.1	20.1	0.013

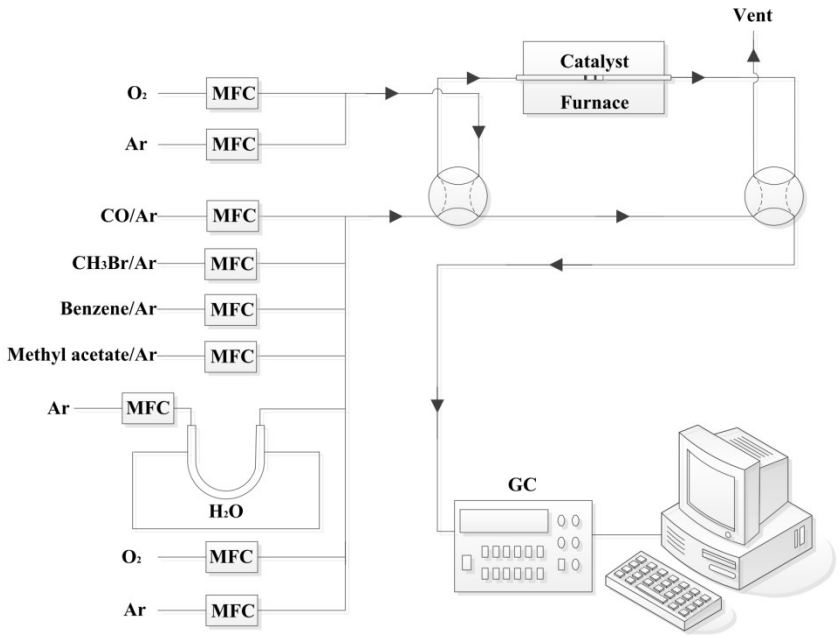

Fig. S1 The catalytic evaluation platform

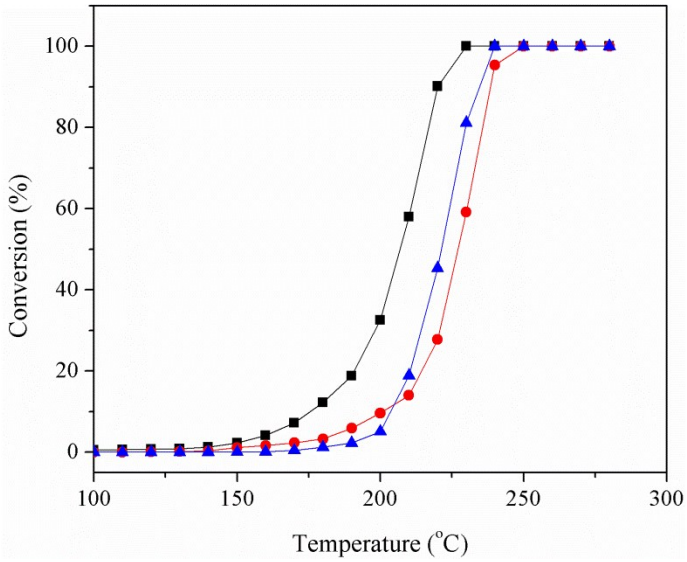

Fig. S2 The multi-pollutants test without methyl acetate: CO (■), CH_3Br (●), benzene (▲) conversions as a function of reaction temperature over Ru/TiO_2 under the conditions of pollutants concentrations = 3500 ppm, 100 ppm, and 200 ppm, respectively, O_2 concentration = 20 vol%, and WHSV =60,000 mL/(g h).

Table S2. The outlet concentration of CO within the temperature range of 200-240 °C

Temperature (°C)	Inlet concentration (ppm)	Outlet concentration (ppm)
200	3500	3572
210	3500	3565
220	3500	3664
230	3500	3625
240	3500	3540