Electronic Supplementary Material (ESI) for Reaction Chemistry & Engineering.

Supplementary Information

Continuous flow gas phase photoreforming of methanol at elevated reaction temperatures sensitised by Pt/TiO_2

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Table S1. Temperature profile in the catalytic reactor with and without irradiation

	Temp under irradiation / °C			Temp in the dark / °C		
Nominal temp / °C	Bottom	Middle	Top	Bottom	Middle	Top
100	81	100	100	88	100	104
120	98	120	120	104	120	125
140	114	140	141	120	140	146
160	132	160	162	139	160	167
180	150	180	183	156	180	188
200	168	200	204	177	200	207

Table S2. Structural parameters of TiO_2 (P25) and 0.2 % Pt/TiO_2 catalysts according to XRD

Material	Phase	Particle size / nm	% w/w Anatase
P25	Anatase	20	83
	Rutile	36	
Fresh 0.2 % Pt/P25	Anatase	25	71
	Rutile	45	
Used 0.2 % Pt/P25	Anatase	28	75
	Rutile	42	

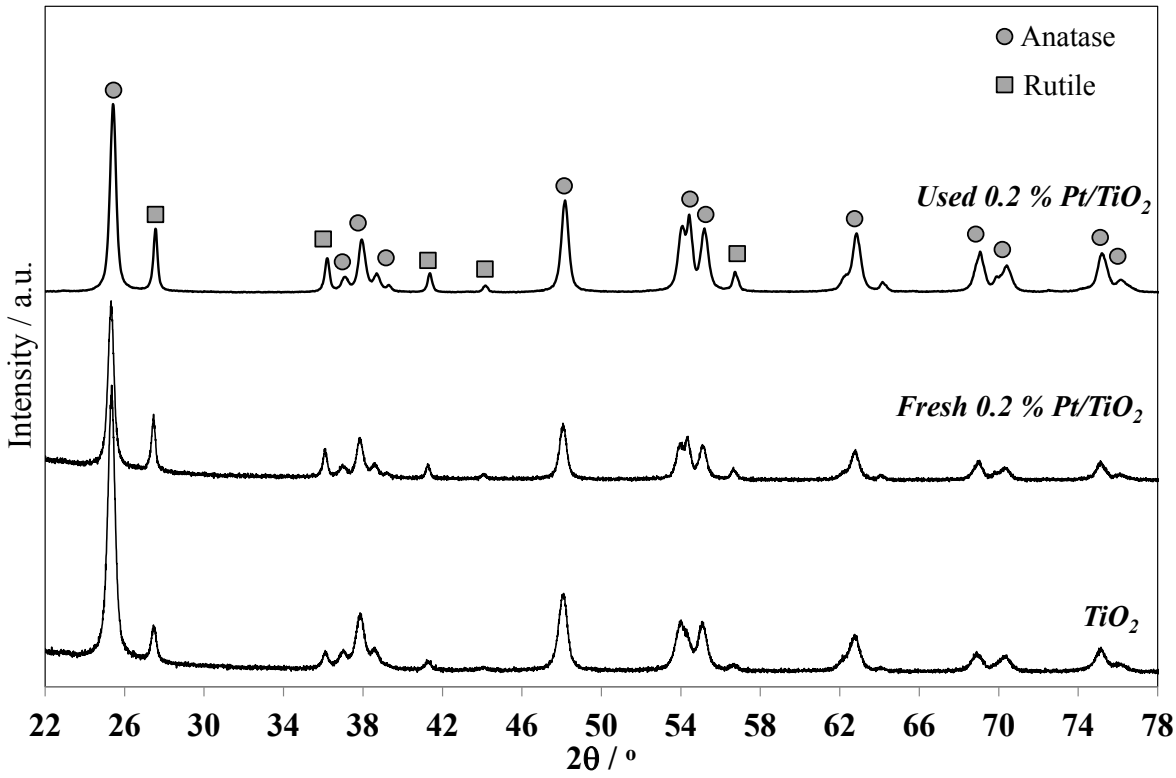

Figure S1. X-Ray diffractograms of TiO_2 and fresh and used Pt/TiO_2 catalysts

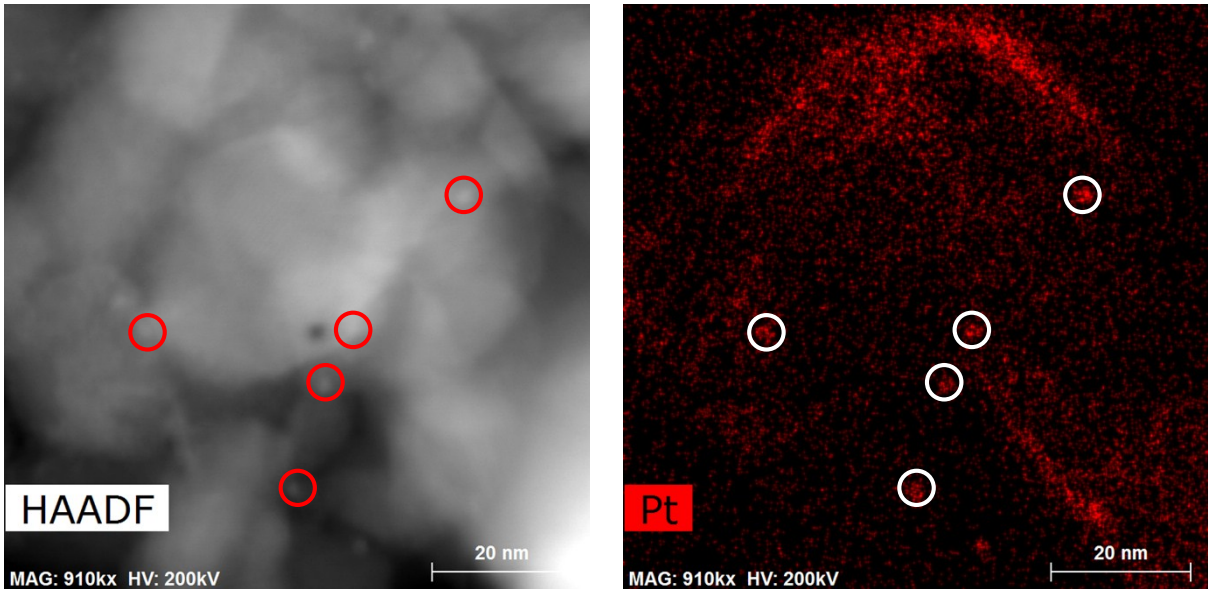

Figure S2. HAADF STEM (left) and EDX mapping (right) of the used 0.2 % Pt/TiO_2 photocatalyst. Circles indicate Pt nanoparticles.