Supplementary Material

Catalytic wet air oxidation using supported Pt and Ru catalysts for treatment of distillery wastewater (cognac and sugarcane vinasses)

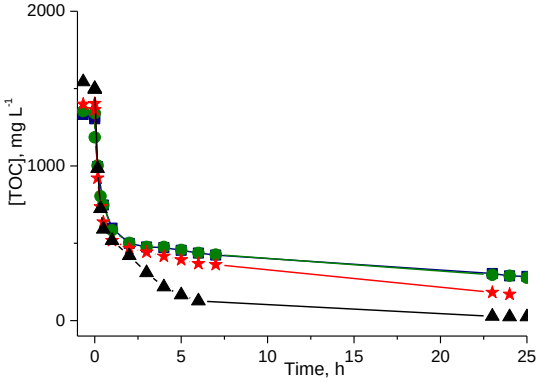

Figure S1. Evolution of concentrations of TOC during oxidation of diluted VBC at 190°C under 70 bar in the presence of 500 mg of 3 % Ru/ZrO_2. 1st reaction (▲,1), 1st recycling (■,2), 2nd recycling (●,3), 3rd recycling after re-activation under H_2 (★,4).

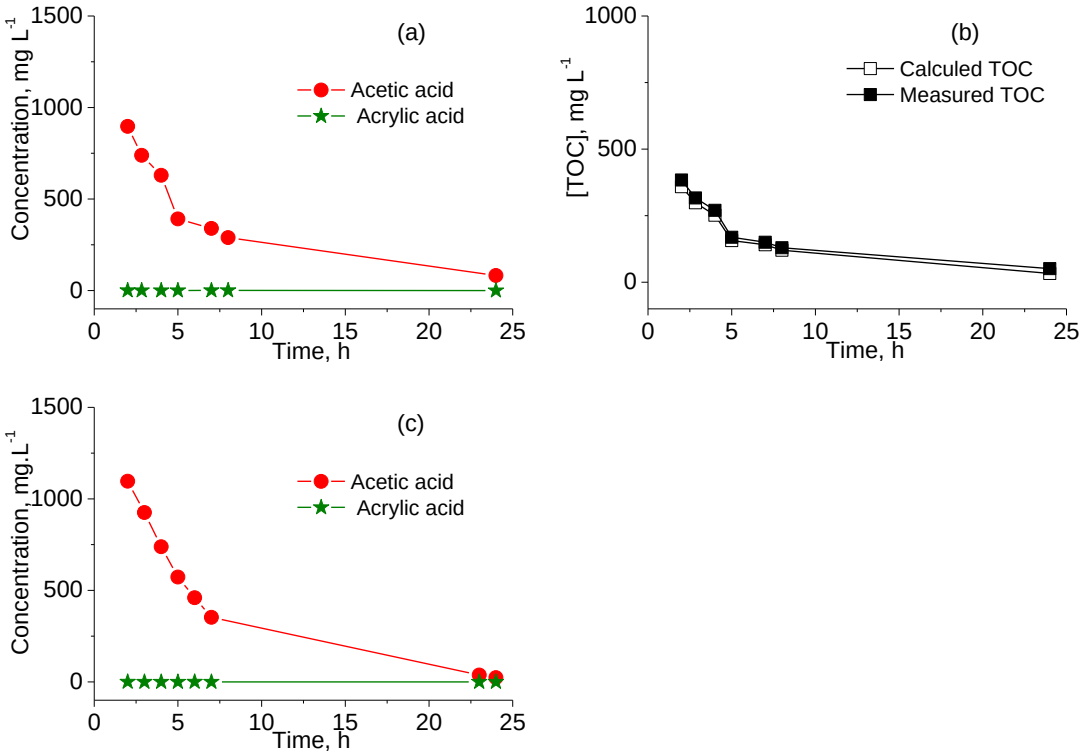

Figure S2. CWAO of diluted VBC at 190°C under 70 bar: (**a**) concentration of (di)carboxylic acids and (**b**) comparison between TOC measured and (**c**) TOC calculated over Ru/TiO_2.

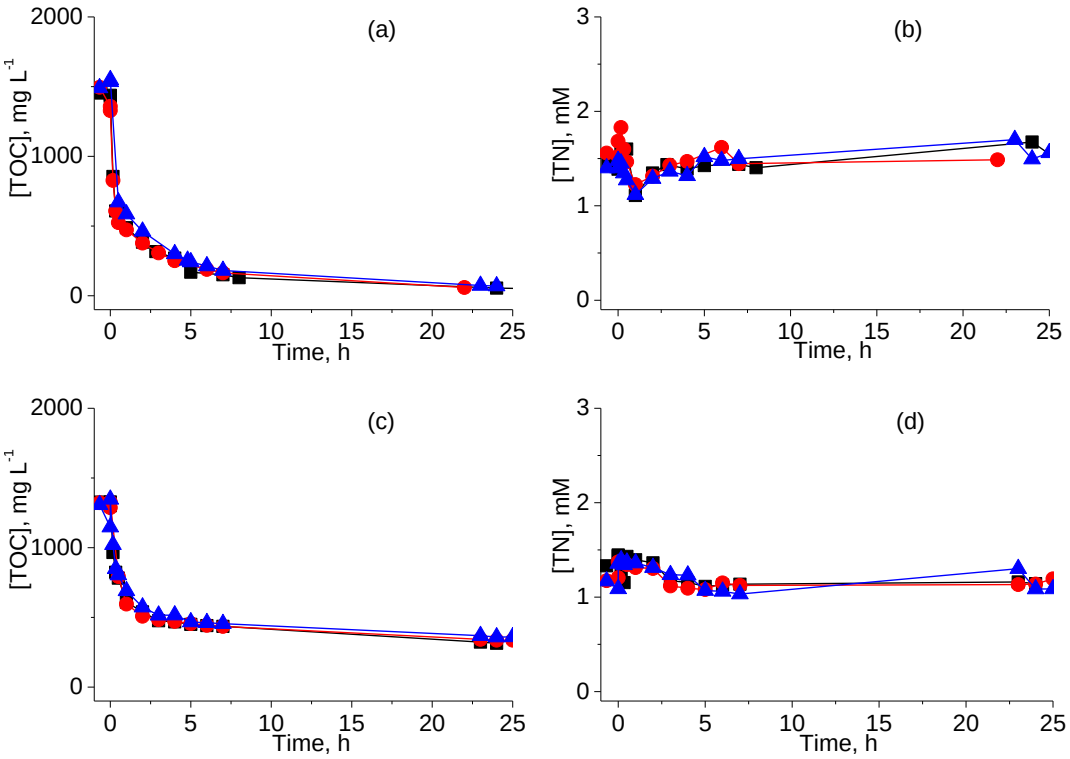

Figure S3. Reproducibility in three oxidation reactions over Ru/TiO_2: (**a,c**) TOC and (**b,d**) TN concentrations in the (**a,b**) initial runs and (**c,d**) 1st recycling runs.

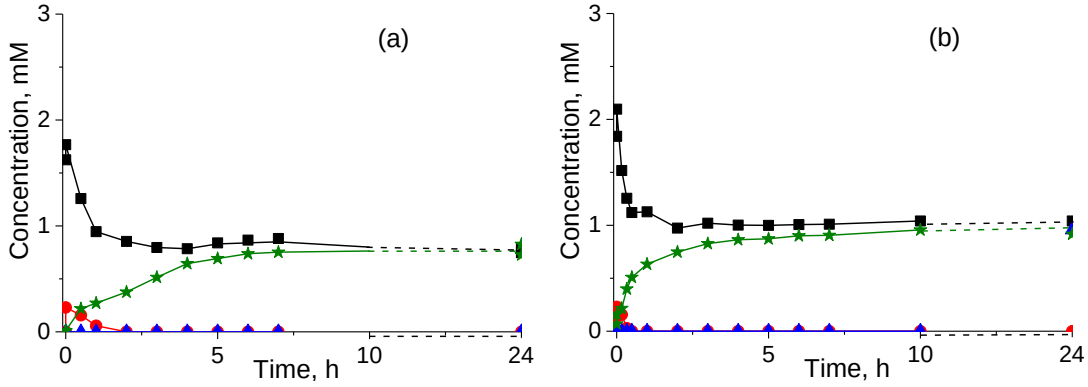

Figure S4. Concentrations of the different N-species in the presence of Pt/ZrO_2: (**a**) fresh catalyst, (**b**) used catalyst. TN (■), ammonium (●), nitrite (▲), nitrate (★).

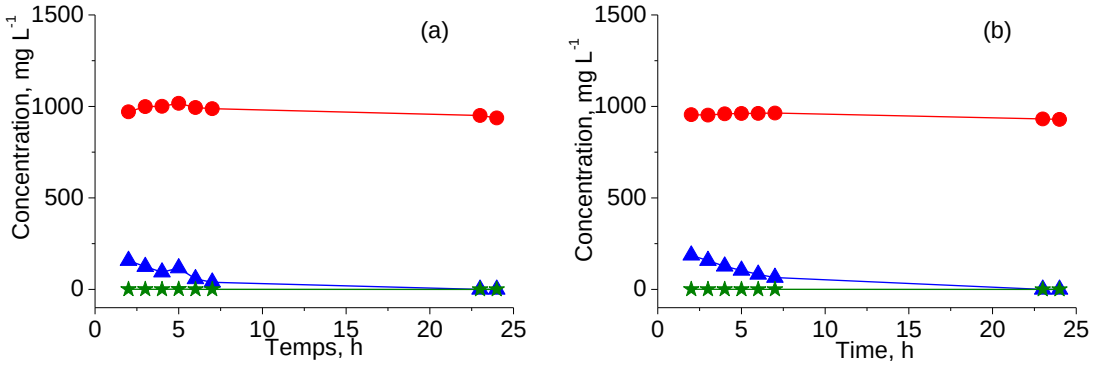

Figure S5. Carboxylic (di)acids formed during treatment of diluted VBC over (**a**) fresh and (**b**) used Pt/TiO_2. (●) acetic acid, (▲) succinic acid, (★) acrylic acid.

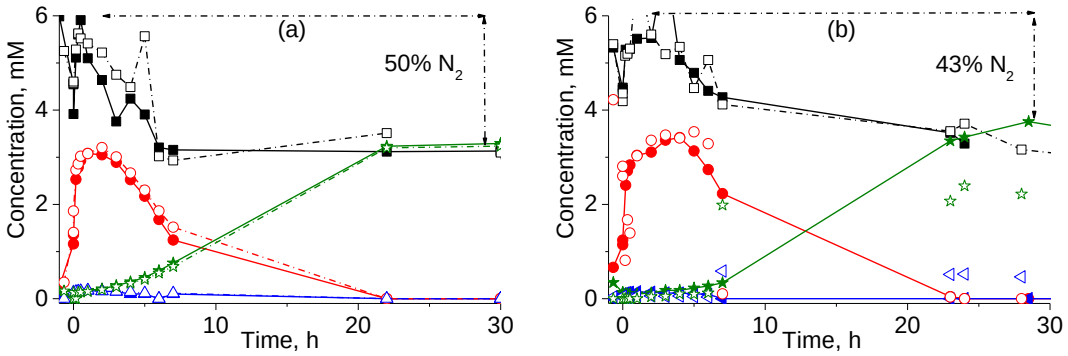

Figure S6. Transformation of organic nitrogen in the sugarcane effluent in the presence of (**a**) Ru/TiO_2 and (**b**) Ru/ZrO_2. TN (■), NH_4^+ (●), NO_3^- (★) and NO_2^- (▲). Empty symbols show the data for duplicate experiments.