catalysts

Supplementary Information: Acid Properties of GO and Reduced GO as Determined by Microcalorimetry, FTIR, and Kinetics of Cellulose Hydrolysis-Hydrogenolysis

Van Chuc Nguyen [1,2,*], Sarah Kheireddine [1], Amar Dandach [1], Marion Eternot [1], Thi Thu Ha Vu [2] and Nadine Essayem [1,*]

[1] Institut de Recherche sur la Catalyse et l'environnement de Lyon, CNRS, Lyon1, 2 Avenue Albert Einstein, 69626 Villeurbanne, France; sarah.kheireddine@ircelyon.univ-lyon1.fr (S.K.); amar.dandach@ircelyon.univ-lyon1.fr (A.D.); marion.eternot@ircelyon.univ-lyon1.fr (M.E.).

[2] Key Laboratory for Petrochemical and Refinery Technologies, 2 rue Pham Ngu Lao, Hanoi, Vietnam; ptntd2004@yahoo.fr (T.T.H.V.).

* Correspondence: nguyenvanchuc@jbnu.ac.kr (V.C.N.); nadine.essayem@ircelyon.univ-lyon1.fr (N.E.).

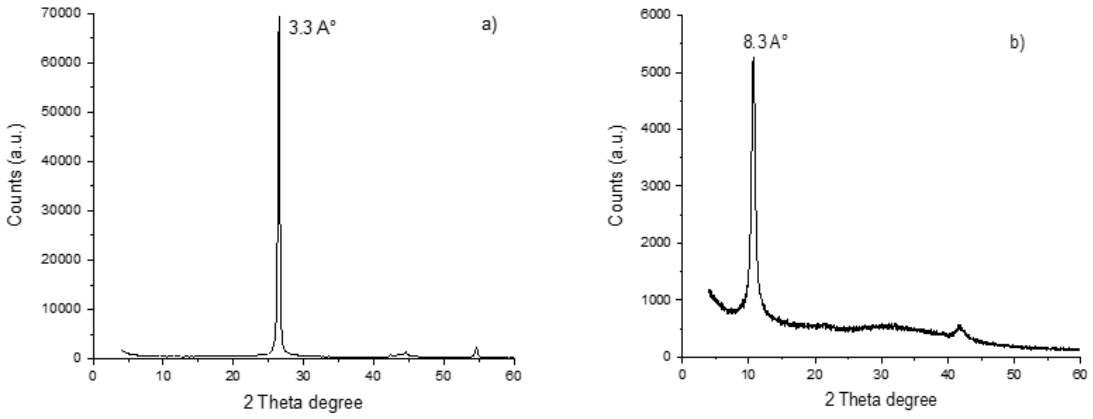

Figure S1. XRD patterns of **a**) the exfoliated graphite precursor, **b**) GO.

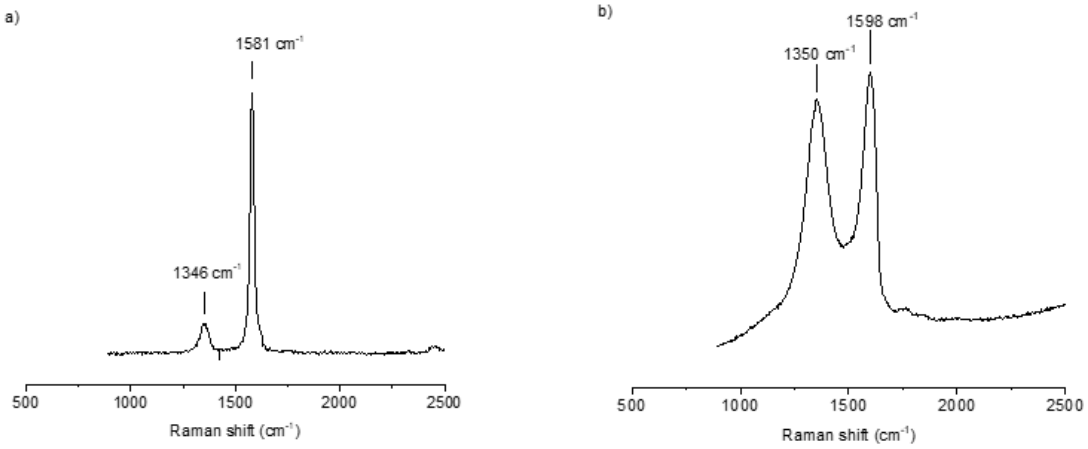

Figure S2. Raman spectra of **a**) exfoliated graphite precursor **b**) GO.

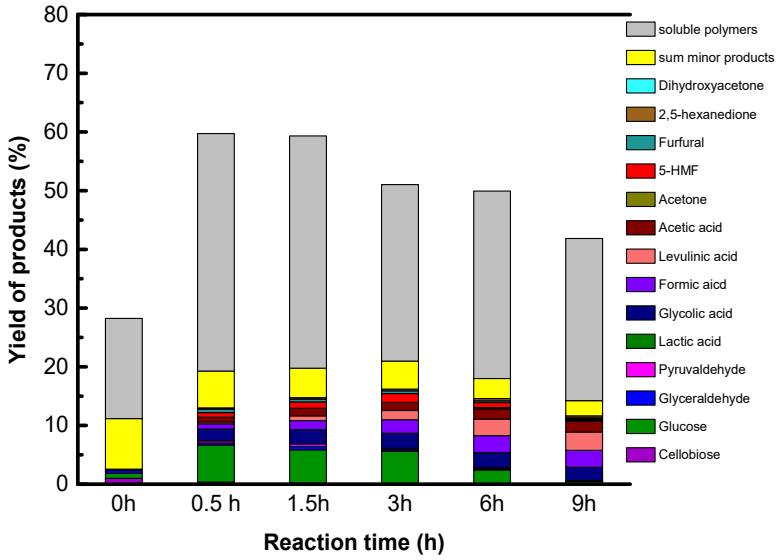

Figure S3. Kinetic of celllulose hydrolysis in liquid products catalyzed by $Cs_2HPW_{12}O_{40}$. Reaction conditions: T = 190 °C, p~11at, $m_{catalyst}$ = 0.68g, $m_{cellulose}$ = 1.6g, m_{water} = 65g, Ar Atm.

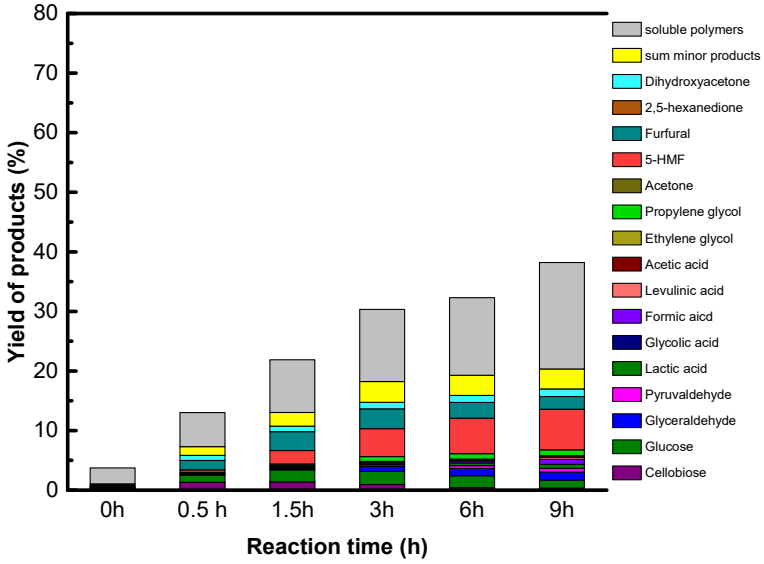

Figure S4. Kinetic of celllulose hydrolysis in liquid products in the absence of catalyst. Reaction conditions: T = 190 °C, p~11at, $m_{cellulose}$ = 1.6g, m_{water} = 65g, Ar Atm.