

*Article*

# Effect of the Preparation Method (Sol-gel or Hydrothermal) and Conditions on the TiO<sub>2</sub> Properties and Activity for Propene Oxidation

Laura Cano-Casanova, Ana Amorós-Pérez, María Ángeles Lillo-Ródenas \* and María del Carmen Román-Martínez

MCMA Group, Department of Inorganic Chemistry and Materials Institute, University of Alicante, E-03080 Alicante, Spain; laura.cano@ua.es (L.C.-C.); ana.amoros@ua.es (A.A.-P.); mcroman@ua.es (M.C.R.-M.)

\* Correspondence: mlillo@ua.es; Tel.: +34965903545; Fax: +34965903454

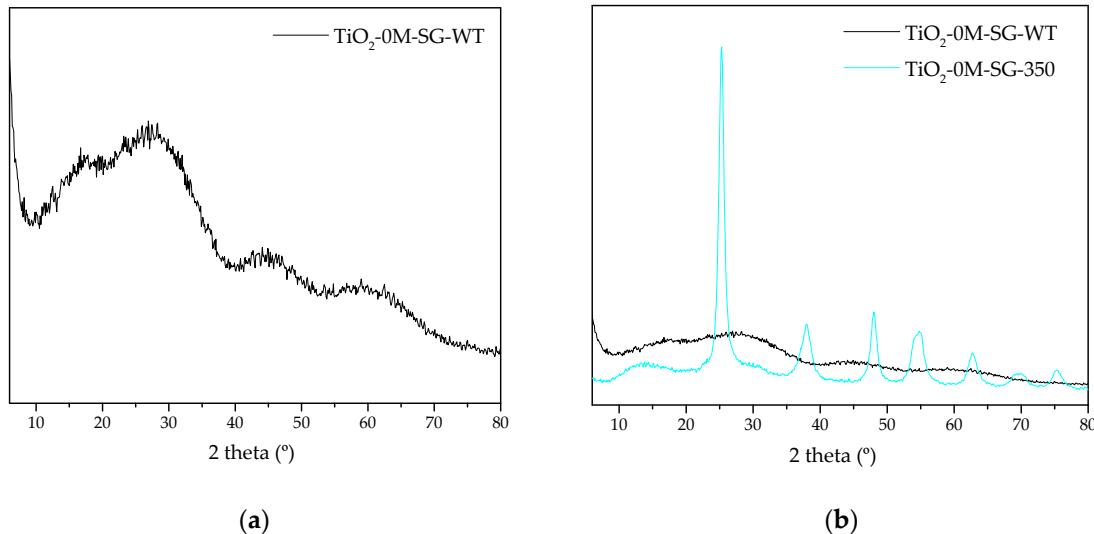
**Table S1.** Amount (in wt.%) of the different TiO<sub>2</sub> crystalline phases and of amorphous TiO<sub>2</sub>, and average crystal size for each crystalline phase.

Sample	Crystalline Contribution			Amorphous Contribution (%)	Average Crystallite Size (nm)		
	A (%)	B (%)	R (%)		A	B	R
TiO <sub>2</sub> -0M-SG	67	-	-	33	9	-	-
TiO <sub>2</sub> -0.8M-SG	53	13	8	26	7	6	13
TiO <sub>2</sub> -1M-SG	51	18	11	20	8	5	15
TiO <sub>2</sub> -5M-SG	65	9	2	24	8	7	18
TiO <sub>2</sub> -12M-SG	76	-	-	24	10	-	-
TiO <sub>2</sub> -0M-HT	78	-	-	22	10	-	-
TiO <sub>2</sub> -0.8M-HT	60	16	1	23	8	6	17
TiO <sub>2</sub> -1M-HT	62	17	2	19	9	6	17
TiO <sub>2</sub> -5M-HT	50	23	6	21	10	9	23
TiO <sub>2</sub> -12M-HT	66	9	-	25	11	17	-
P25	73	-	14	13	22	-	28

A = Anatase, B = Brookite and R = Rutile.



**Figure S1.** Image of the samples TiO<sub>2</sub>-0M-HT (left) and TiO<sub>2</sub>-0M-SG (right), both treated at 350 °C.



**Figure S2.** XRD patterns of: (a)  $\text{TiO}_2\text{-}0\text{M-SG-WT}$  sample and (b) comparison of  $\text{TiO}_2\text{-}0\text{M-SG-WT}$  with  $\text{TiO}_2\text{-}0\text{M-SG-350}$ .



© 2018 by the authors. Submitted for possible open access publication under the terms and conditions of the Creative Commons Attribution (CC BY) license (<http://creativecommons.org/licenses/by/4.0/>).