

## **Electronic Supplementary Information**

Ag-coated heterostructures of ZnO-TiO<sub>2</sub>/delaminated montmorillonite as  
solar photocatalysts

*C. Belver<sup>a</sup>\*, M. Hinojosa<sup>b</sup>, J. Bedia<sup>a</sup>, M. Tobajas<sup>a</sup>, M.A. Alvarez<sup>a</sup>, V. Rodríguez-González<sup>b</sup>, J.J. Rodriguez<sup>a</sup>*

<sup>a</sup>Seccion de Ingenieria Quimica, Facultad de Ciencias, Universidad Autonoma de Madrid, Campus  
Cantoblanco, E-28049 Madrid, Spain

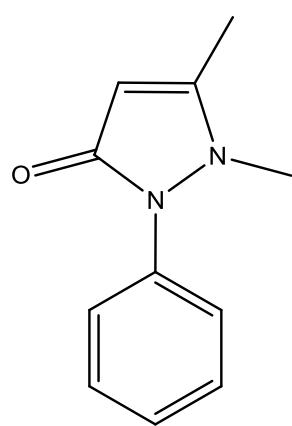
<sup>b</sup>Division de Materiales Avanzados, IPICYT (Instituto Potosino de Investigación Científica y  
Tecnológica), Camino a la Presa San José 2055, C.P. 78216, San Luis Potosí, Mexico

**Table S1.** Chemical analyses (wt.%) of heterostructures, referred to ignited solids (0% water).

Sample	TiO <sub>2</sub>	ZnO	Ag	SiO <sub>2</sub>	Al <sub>2</sub> O <sub>3</sub>	Fe <sub>2</sub> O <sub>3</sub>	MgO
1C2T-Ag1	74.30	0.00	1.13	16.40	6.28	1.24	0.61
1C2T-Zn05-Ag1	72.70	0.26	0.91	17.70	6.45	1.33	0.63
1C2T-Zn1-Ag1	71.50	0.49	1.18	17.90	6.55	1.46	0.66
1C2T-Zn2-Ag1	70.00	1.03	1.17	18.50	7.05	1.44	0.67
1C2T-Zn2-Ag3	69.80	0.95	2.38	18.10	6.70	1.32	0.58

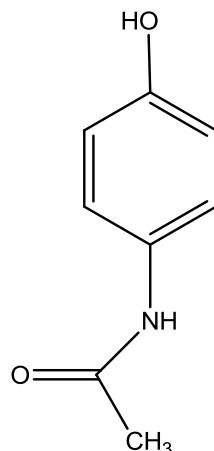
**Table S2.** Values of the rate constant for antipyrine, acetaminophen and atrazine degradation for the Ag/ZnO-TiO<sub>2</sub> delaminated clay heterostructures

Catalyst	antipyrine	acetaminophen	atrazine
	k x 10 <sup>3</sup> (min <sup>-1</sup> )	k x 10 <sup>3</sup> (min <sup>-1</sup> )	k x 10 <sup>3</sup> (min <sup>-1</sup> )
1C2T-Ag1	7.8		
1C2T-Zn05-Ag1		9.1	9.5
1C2T-Zn1-Ag1		6.4	
1C2T-Zn2-Ag1		6.8	
1C2T-Zn2-Ag3		6.9	4.7
			3.8



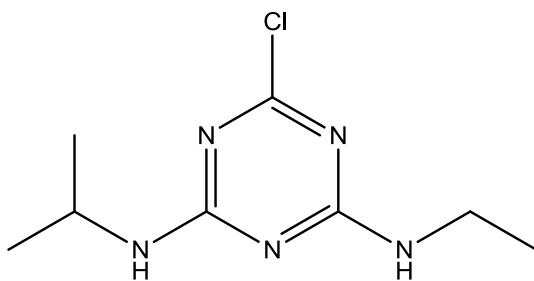
antipyrine

pyrazole derived



acetaminophen

aminophenol group



atrazine

nitrochlorinated compound  
s-triazine ring

**Figure S1.** Chemical structure of the pharmaceuticals and herbicide used as model of emerging contaminants.