

Supporting Information

Novel TiO₂ Nanoparticles/ Polysulfone Composite Hollow Microspheres for Photocatalytic Degradation

Shangying Zhang, Qi Wang, Fengna Dai, Yangyang Gu, Guangtao Qian, Chunhai Chen and Youhai Yu *

Center for Advanced Low-Dimension Materials, State Key Laboratory for Modification of Chemical Fibers and Polymer Materials, College of Materials Science and Engineering, Donghua University, Shanghai 201620, China; 1185099@mail.dhu.edu.cn (S.Z.); 1185078@mail.dhu.edu.cn (Q.W.); 2180397@mail.dhu.edu.cn (F.D.); 1209718@mail.dhu.edu.cn (Y.G.); qgt@dhu.edu.cn (G.Q.); cch@dhu.edu.cn (C.C.)

* Correspondence: yuyouhai@dhu.edu.cn

Table of contents

Figure S1 EDS of the inner surface of the TiNPs/PSF-0.40 composite microspheres.

Figure S2 (a) XPS full-scale spectra of TiO₂, peak-fitting XPS of the (b) Ti 2p, (c) O 1s; (d) XPS full-scale spectra of PSF, peak-fitting XPS of the (e) C 1S, (e) S 2p.

Table S1. Adsorption capacity of TiO₂, PSF and TiNPs/PSF microsphere

Citation: Zhang, S.Y.; Wang, Q.; Dai, F.N.; Gu, Y.; Qian, G.T.; Chen, C.H. and Yu, Y.H. Novel TiO₂ Nanoparticles/Polysulfone Composite Hollow Microspheres for Photocatalytic Degradation. *Polymers* **2020**, *13*, x. <https://doi.org/10.3390/xxxxx>

Received: 29 December 2020

Accepted: 18 January 2021

Published: date

Publisher's Note: MDPI stays neutral with regard to jurisdictional claims in published maps and institutional affiliations.



Copyright: © 2021 by the authors. Licensee MDPI, Basel, Switzerland. This article is an open access article distributed under the terms and conditions of the Creative Commons Attribution (CC BY) license (<http://creativecommons.org/licenses/by/4.0/>).

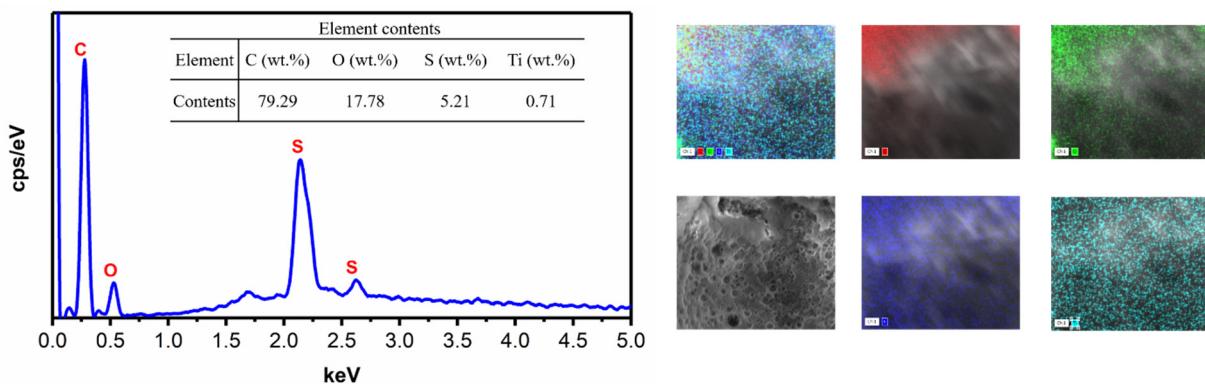


Figure S1. EDS of the inner surface of the TiNPs/PSF-0.40 composite microspheres.

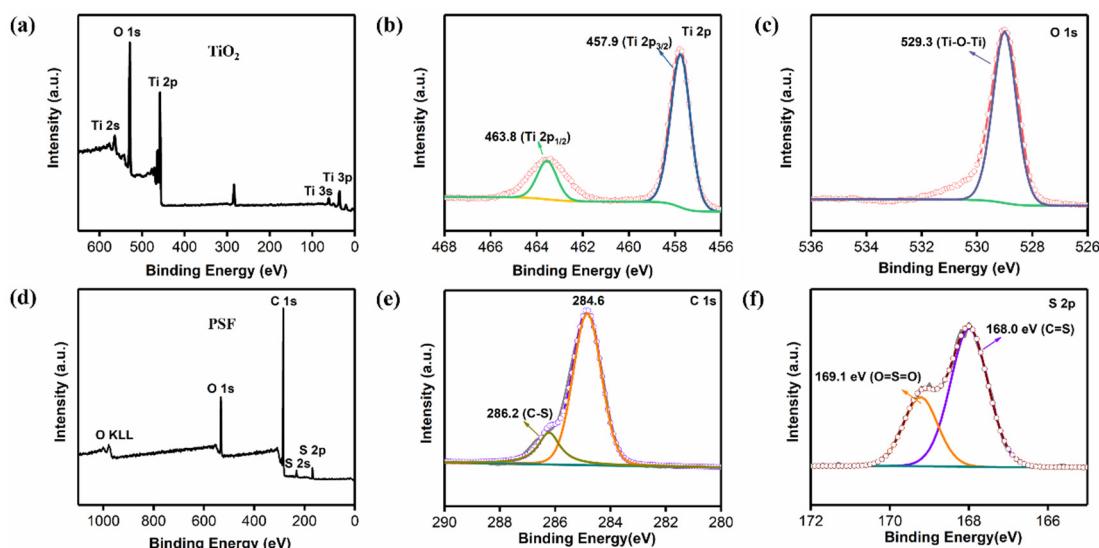


Figure S2. (a) XPS full-scale spectra of TiO₂, peak-fitting XPS of the (b) Ti 2p, (c) O 1s; (d) XPS full-scale spectra of PSF, peak-fitting XPS of the (e) C 1S, (f) S 2p.

Table S1. Adsorption capacity of TiO₂, PSF and TiNPs/PSF microsphere.

Sample	Time	5 min (mg g ⁻¹)	10 min (mg g ⁻¹)	15 min (mg g ⁻¹)	20 min (mg g ⁻¹)	30 min (mg g ⁻¹)
pure PSF		0.28	0.59	0.62	0.65	0.65
TiO ₂		0.12	0.33	0.56	0.78	0.78
TiNPs/PSF-0.08		0.33	0.65	0.70	0.71	0.71
TiNPs/PSF-0.24		0.35	0.69	0.74	0.76	0.77
TiNPs/PSF-0.40		0.36	0.68	0.73	0.77	0.77
TiNPs/PSF-0.56		0.38	0.7	0.74	0.79	0.79
TiNPs/PSF-0.72		0.35	0.68	0.71	0.75	0.76
TiNPs/PSF-0.88		0.33	0.68	0.72	0.73	0.74