

Supplementary material

Heterogenization of ketone catalyst for epoxidation by low pressure plasma fluorination of silica gel supports

Lucia D'Accolti,^{1,2} * Nicoletta De Vietro,¹ Caterina Fusco,² Angelo Nacci,^{1,2} Francesco Fracassi^{1,3*}

¹ Dipartimento di Chimica, Università di Bari "A. Moro", Via Orabona 4, 70126 Bari, Italy

² ICCOM-CNR, SS Bari, Via Orabona 4, 70126 Bari, Italy;

³ NANOTEC-CNR, c/o Department of Chemistry, University of Bari "Aldo Moro", via Orabona 4, Bari, Italy

* Correspondence: lucia.daccolti@uniba.it, Tel.: +39 080 5442068; francesco.fracassi@uniba.it, Tel.: +39 080 5442009

Academic Editor: name

Received: date; Accepted: date; Published: date

corresponding author: lucia.daccolti@uniba.it, francesco.fracassi@uniba.it

(8 pages, including this cover)

Contents:

1. <i>Table S1</i> XPS characterization of Catalyst 2-C	<i>p.</i> 2
2. <i>Figure S1</i> XPS C1s region, curve fitting for (2-C)	<i>p.</i> 3
3. <i>Figure S2</i> XPS O1s region, curve fitting for catalyst (2-C)	<i>p.</i> 4
4. <i>Figure S3</i> ¹ H-NMR spectrum of ESO	<i>p.</i> 5

Table S1: Components used for the curve-fitting of the high-resolution C1s and O1s XPS signals of Catalyst **2-C**.

Signal^a	component	BE (eV)	assignment
C1s	C1	285.0 ± 0.2	C-C/C-H
	C2	286.5 ± 0.3	<u>C</u> -C=O/C-O
	C3	287.7 ± 0.3	<u>C</u> -CF/ <u>C</u> -O-C=O
	C4	289.4 ± 0.2	CF/C=O/O-C-O/ O-C=O
	C5	291.5 ± 0.3	CF ₂
	C6	293.7 ± 0.2	CF ₃
O1s	O1	532.8 ± 0.3	O=C/O-CH _x
	O2	534.2 ± 0.3	O-CF _x

^a G.Beamson, D. Briggs, High Resolution XPS of Organic Polymers, the scientia ESCA 300 data-base, J. Wiley & Sons, Chichester, (1992).

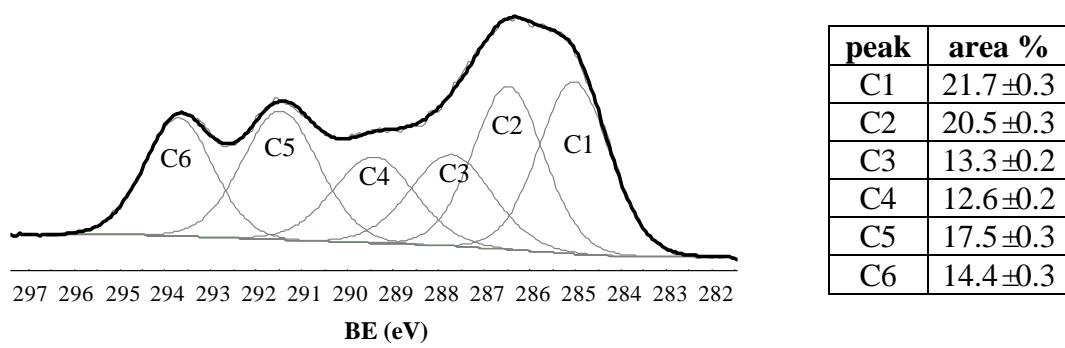


Figure S1. XPS curve fitting for catalyst (2-C) C1s region

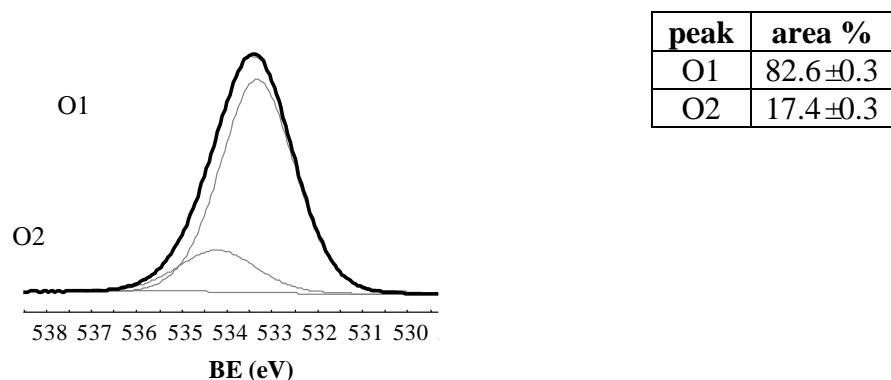


Figure S2. XPS curve fitting for catalyst (2-C) O1s region

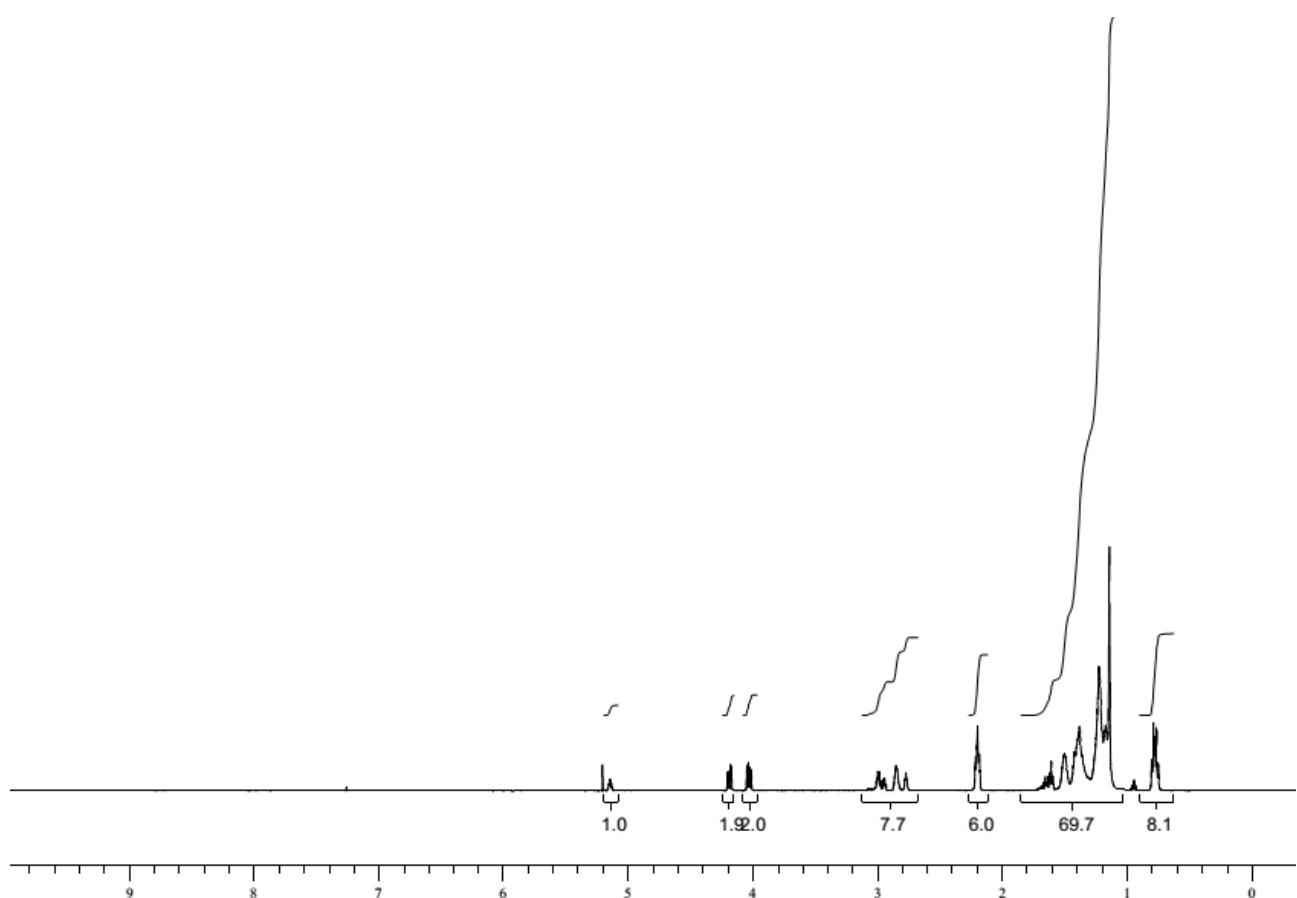


Figure S3. ^1H NMR (CDCl_3 , 500 MHz) spectrum of ESO