

Water-Soluble Non-Polymeric Electrospun Cyclodextrin Nanofiber Template for the Synthesis of Metal Oxide Tubes by Atomic Layer Deposition

Asli Celebioglu ^{ab}, Sesha Vempati ^{*a}, Cagla Ozgit-Akgun ^{ab}, Necmi Biyikli ^{ab} and Tamer Uyar ^{*ab}

^a UNAM-National Nanotechnology Research Center, Bilkent University, Ankara, 06800, Turkey

^b Institute of Materials Science and Nanotechnology, Bilkent University, Ankara, 06800, Turkey

E-mail: svempati01@qub.ac.uk; uyar@unam.bilkent.edu.tr

Electronic Supplementary information

Table 1: Characteristics of deconvoluted peaks from XRD for three selected reflections. FWHM stands for full width at half maximum.

	(°)	ZM2	ZM2_W	ZH4	ZH4_W
(100)	Peak position	31.944 ± 0.005	31.941 ± 0.002	32.068 ± 0.002	31.940 ± 0.003
	FWHM	0.794 ± 0.016	0.809 ± 0.008	0.656 ± 0.008	0.741 ± 0.011
(002)	Peak position	34.358 ± 0.009	34.349 ± 0.004	34.457 ± 0.007	34.339 ± 0.006
	FWHM	1.342 ± 0.035	1.196 ± 0.013	1.289 ± 0.024	1.120 ± 0.020
(101)	Peak position	36.271 ± 0.008	36.274 ± 0.003	36.387 ± 0.005	36.264 ± 0.005
	FWHM	1.334 ± 0.027	1.335 ± 0.011	1.279 ± 0.017	1.168 ± 0.019

Table 2: Results of XPS survey scan given in atomic percentage. Carbon contamination is majorly observed while a signature of Cl or P is also seen as the experiments are performed in ambient lab environment. * indicates only contamination from C.

	Al	O	C and other contaminants
AM2_W	25.67	41.37	32.96
AH2_W	28.48	51.05	20.47*
	Zn	O	C/other contaminants
ZM2_W	21.39	31.18	47.43
ZH4_W	28.28	37.81	33.91

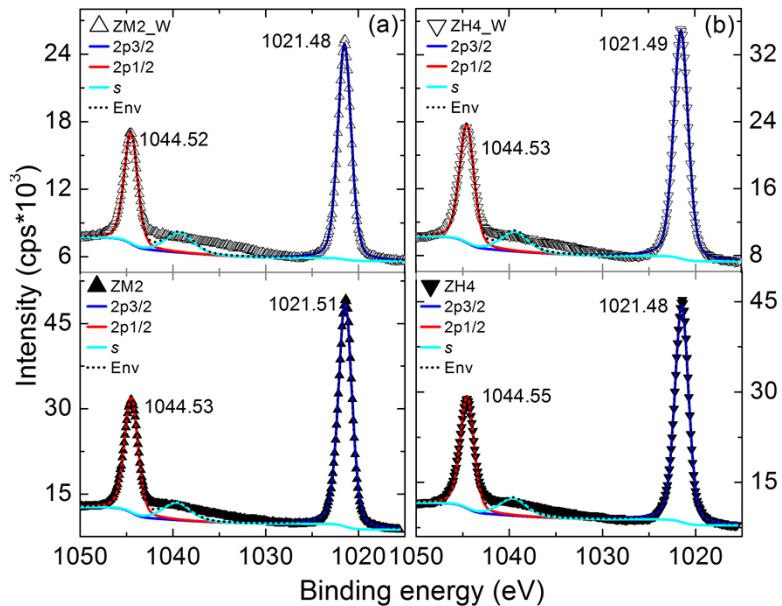


Figure 1. Zn2p XPS core-level spectra from electrospun fibers before and after washing steps. (a) ZM2, (b) ZM2_W, (c) ZH4, (d) ZH4_W. Satellite peak is annotated with 's'. The peak positions are annotated on the image in eV.