Supporting Information

How to Confer a Permanent Bio-Repelling and Bio-Adhesive Character to Biomedical Materials Through Cold Plasmas

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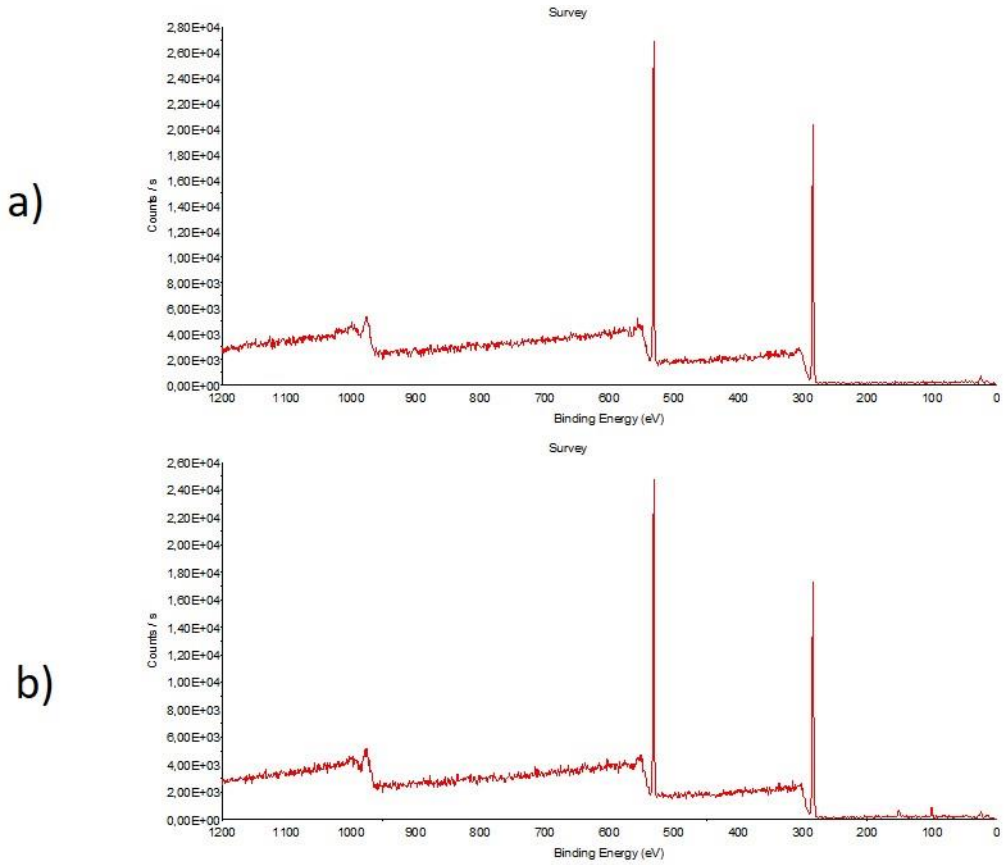

Figure S1. Examples of XPS survey spectra acquired on DEGDME coatings deposited in LP before (a) and after (b) 1 week water soaking.

Precursor	Input power (W)	Water soaking	C (%)	O (%)	O/C	PEO-character (%)
DEGDME	5	no	71.5	28.5	0.40	67.7
		yes	70.0	30.0	0.43	64.0
	15	no	83.0	17.0	0.20	36.2
		yes	82.7	17.3	0.21	25.9
	50	no	89.3	10.7	0.12	32.1
		yes	88.7	11.3	0.13	12.1
VAc/DEGDME	5	no	72.2	27.8	0.39	29.8
		yes	65.2	34.8	0.53	37.7
	15	no	76.0	24.0	0.32	41.0
		yes	75.6	24.4	0.32	41.5

	50	no	83.7	16.3	0.19	27.5
		yes	83.7	16.3	0.19	17.4
VAc	5	no	74.8	25.2	0.34	19.6
		yes	74.1	25.9	0.35	20.7
	15	no	81.3	19.6	0.21	16.7
		yes	79.3	20.7	0.26	21.5
	50	no	84.6	15.4	0.18	17.7
		yes	84.2	15.8	0.19	14.7

Table S2. C1s components, WCA and deposition rate (rd) for PEOA and PEOB coatings deposited in AP at variable frequency (16/26 KHz) or variable peak-to-peak voltage (6.5/8.5 kVp-p).

Sample	**%I (285eV)**	**%II (286.5 eV)**	**%III (287.9 eV)**	**%IV (287.9 eV)**	**WCA static (°)**	**rd ($nm*min^{-1}$)**
PEOA_ 16 kHz_6.5 kVpp	22 ± 2	71 ± 1	4 ± 1	3 ± 1	48 ± 2	22 ± 3
PEOA_ 16 kHz_8.5 kVpp	25 ± 2	69 ± 1	4 ± 1	2 ± 1	50 ± 3	28 ± 4
PEOA_ 27 kHz_6.5 kVpp	23 ± 2	70 ± 1	5 ± 1	2 ± 1	49 ± 1	25 ± 3
PEOA_ 27 kHz_8.5 kVpp	27 ± 2	66 ± 1	6 ± 2	1 ± 1	52 ± 3	36 ± 4
PEOB_ 27 kHz_6.5 kVpp	45 ± 2	49 ± 1	5 ± 1	1 ± 1	53 ± 3	20 ± 3
PEOB_ 27 kHz_8.5 kVpp	46 ± 2	48 ± 1	4 ± 2	2 ± 1	54 ± 2	23 ± 2