Supplementary Information for:

TiO_2 Nanofilms on Polymeric Substrates for the Photocatalytic Degradation of Methylene Blue

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Figure S1: The modified Epson XP-335 printer used for the inkjet printing process.

Table S1: Colloidal stability of the commercial TiO_2 nanoparticles (0.5 wt%) dispersed in various ink formulations.

						Ink stability	
#	EG (wt%)	PEG[a] (wt%)	Water (ml)	Ethanol (ml)	Isopropanol (ml)	No HCl	HCl (0.005 M)
1	0	0	5	0	0		
2	50	2	2.75	0	0		
3	50	0	2.75	0	0		
4	20	2	4.1	0	0		
5	20	0	4.1	0	0		
6	5	3	0	4.77	0		
7	0	3	5	0	0		
8	0	0	4.5	0	0.5		
9	0	0	4	0	1		
10	100	0	0	0	0		

[a]Alfa Aesar™ Polyethylene glycol 1500

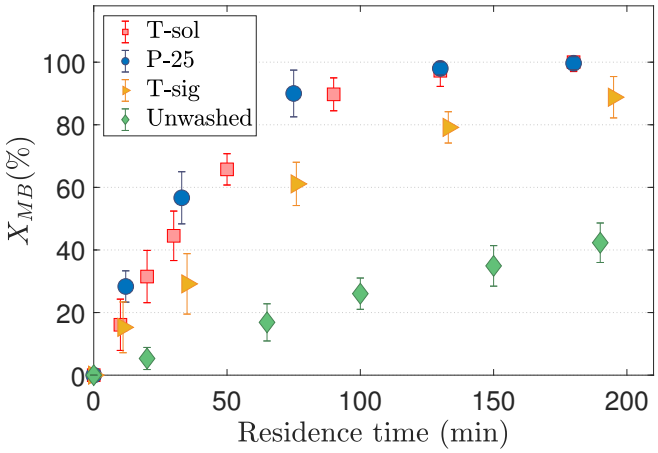

Figure S2: Photocatalytic degradation of methylene blue in the batch reactor: T-sol, Degussa P-25, T-sig and unwashed T-sol solution before adding NaOH and washing procedure (TiO_2 weight: 0.1 g; reaction volume: 100 ml; C_{MB0}: 4 ppm).

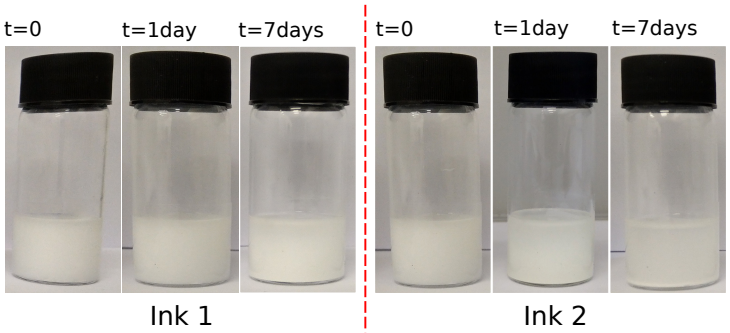

Figure S3: Colloidal stability of the formulated TiO_2 dispersions (ink 1: T-sol; ink 2: T-sig): after preparation and after 1 and 7 days of storage.

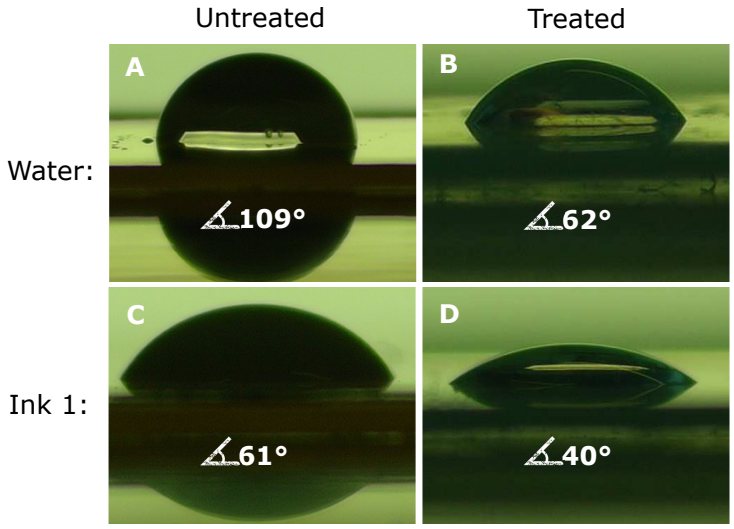

Figure S4: Droplet images and contact angle measurements of DI water (A, B) and T-sol ink (C, D) on the polypropylene substrate before and after exposure to plasma for 5 min.