

Supplementary Information for the manuscript:

End-of-life indicators based on temperature switchable nanobombs

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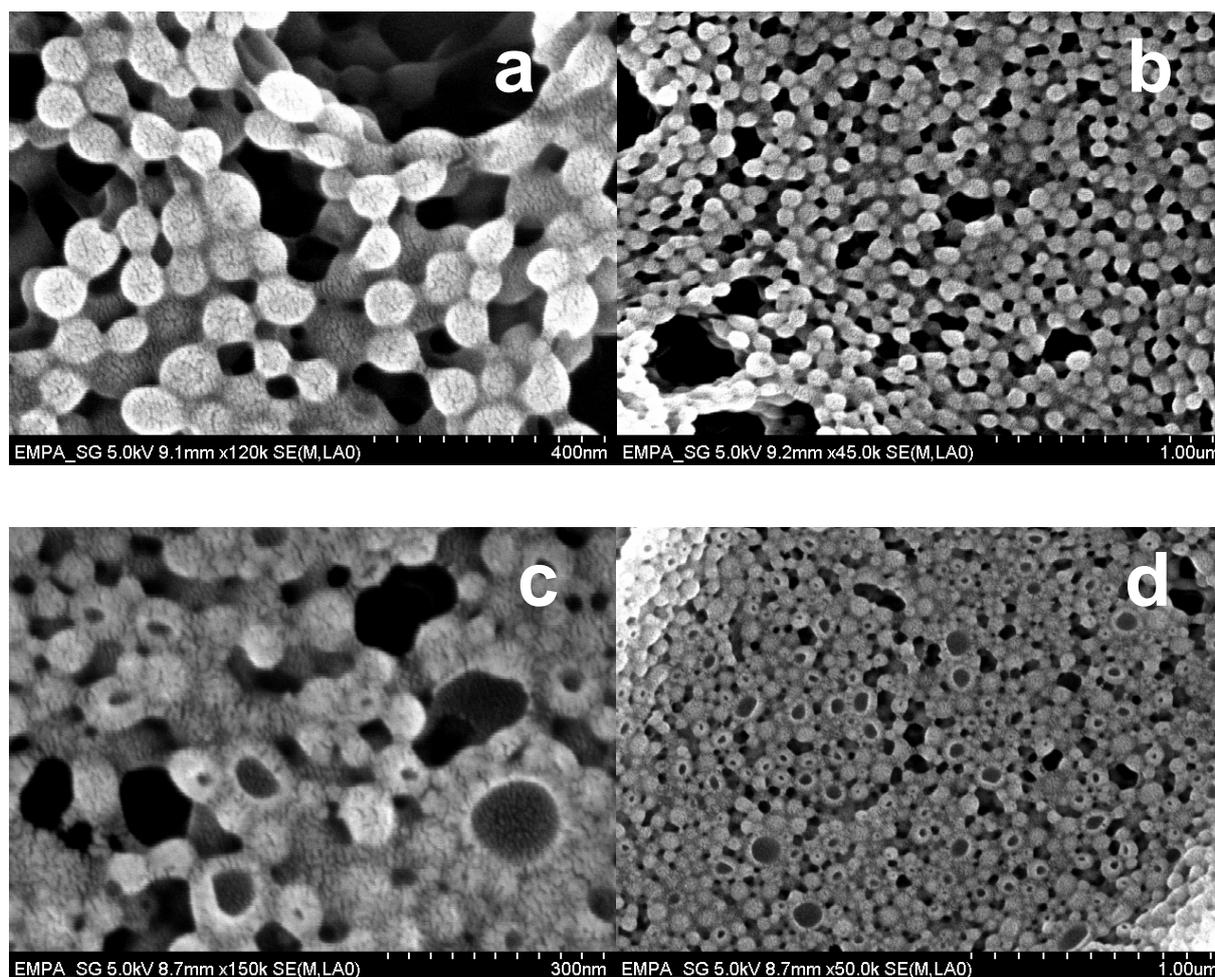


Fig. S1 SEM micrographs of PMMA nanoparticles containing V59 before (a,b) and after (c,d) exposure to 90°C.

Table S1 Weight-% of remaining azo-component V59 in PMMA nanoparticles after heating at different temperatures and for different time determined by HPLC.

<i>t</i>		<i>m</i> _{V59} [%]	
[min]	[h]	100 °C	75 °C
10		86.3	-
15		63.7	-
30		17.8	88.5
45		5.0	
	1	4.1	89.7
	2	0.0	-
	3		56.9
	6		27.5
	8		17.8
	10		10.6
	19		2.9
	24		0.0

Table S2 Composition, yield, and hydrodynamic diameters of the dispersions prepared with DMAMAB, FatBrown RR, and PNaph as hydrophobic dyes.

Entry	Dye		V59 [wt.%]	Yield [%]	<i>D_h</i> [nm]
	nature	amount [wt.%]			
AH_NE_133	DMAMAB	0.09	15.8	80	98
AH_NE_131	DMAMAB	0.82	15.0	99	146
AH_NE_134	FatBrown RR	0.08	16.2	96	103
AH_NE_132	FatBrown RR	0.81	14.8	89	96
AH_NE_053	PNaph	0.27	13.6	91	98
AH_NE_049	PNaph	1.34	13.4	84	159
AH_NE_045	PNaph	6.35	12.7	91	172

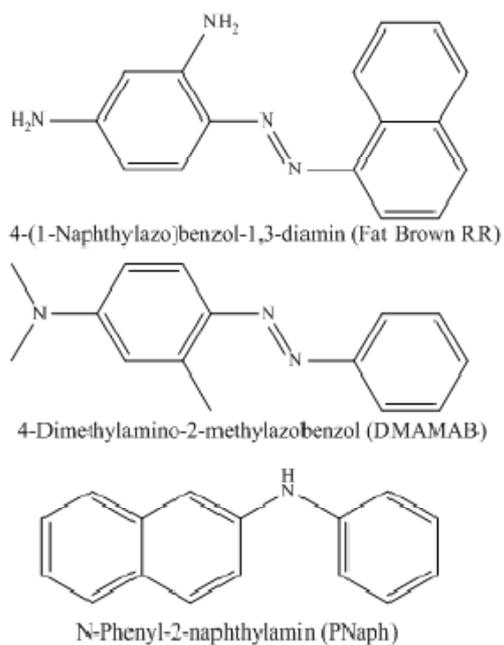


Fig. S2 Chemical structures of the other hydrophobic dyes used in the study.

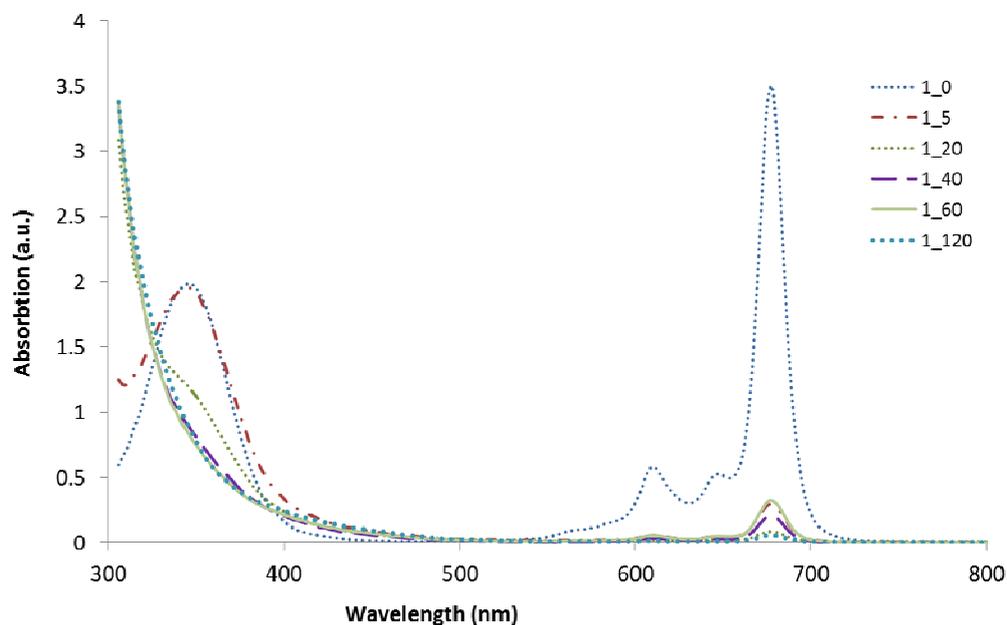


Fig. S3 UV-vis absorption spectra of the Cut_{Bu}PC:V69 solutions as measured after different heating times.

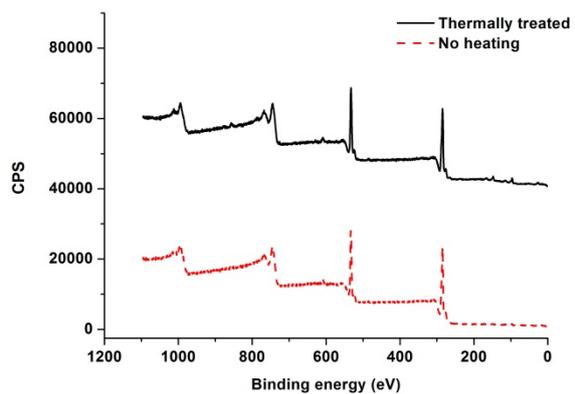


Fig. S4 XPS survey spectra acquired on a film of capsules deposited on silicon slides, before (---) and after heating (-----). The characteristic band of Cu 2p, at around 935 eV is absent from both spectra.