Electronic Supplementary Material (ESI) for RSC Advances.

Electronic Supplementary Information for:

Microencapsulated UV filter@ZIF-8 based sunscreens for broad spectrum UV protection

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SUPPLEMENTARY FIGURES

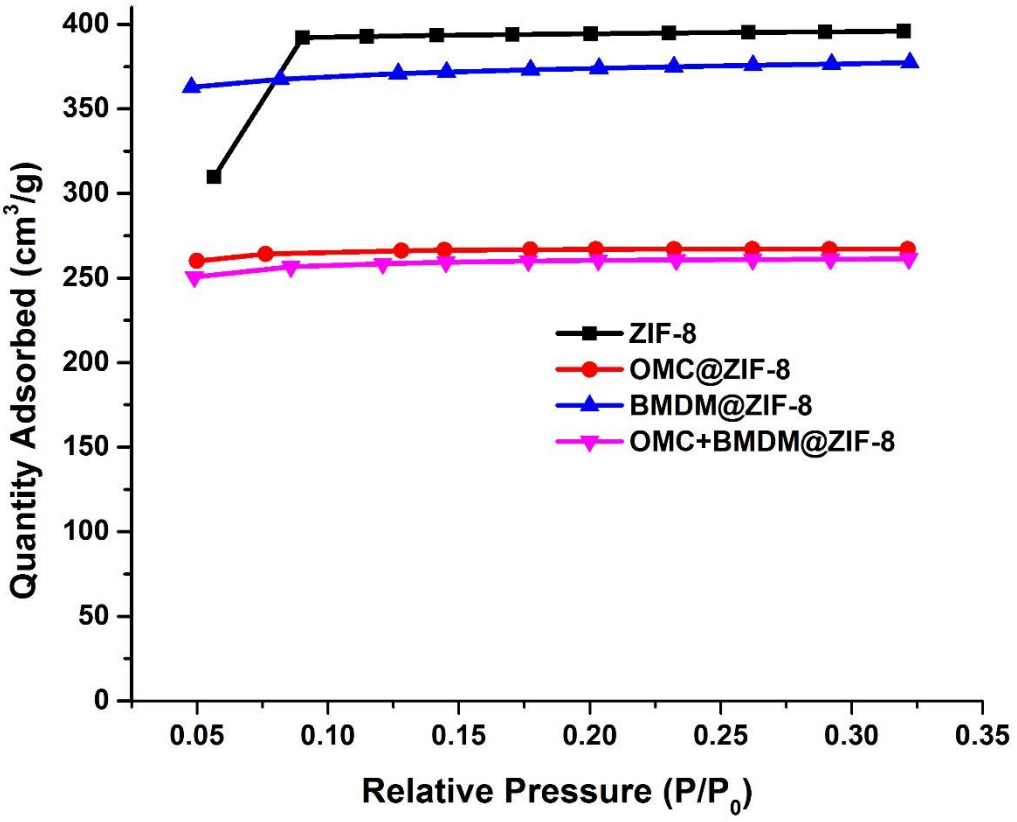

Figure S1. BET adsorption isotherms of ZIF-8, OMC@ZIF-8, BMDM@ZIF-8 and OMC+BMDM@ZIF-8.

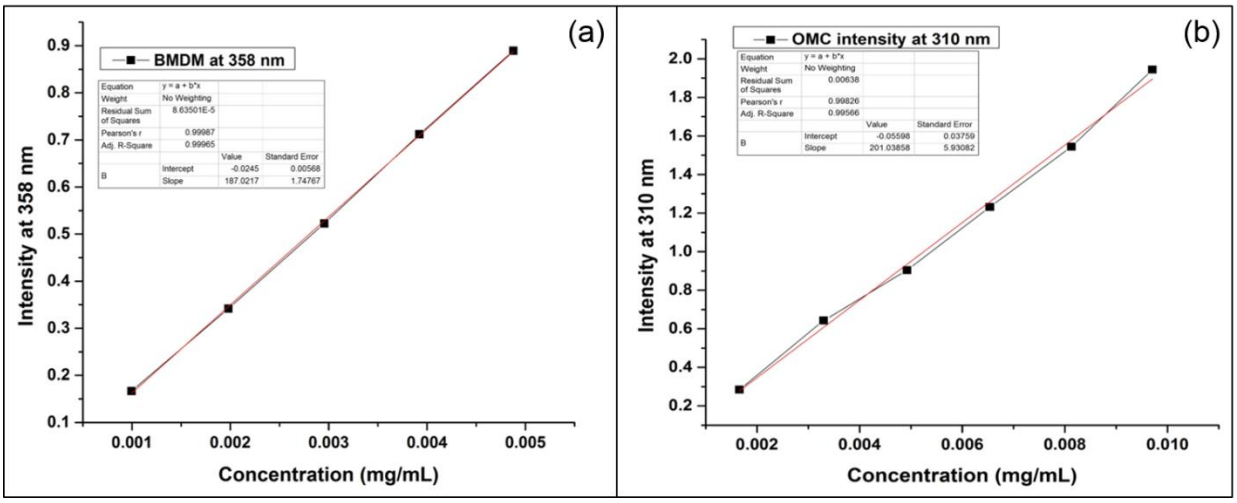

Figure S2. Calibration curves of **(a)** BMDM and **(b)** OMC used for determining encapsulation efficiency of OMC and BMDM in OMC@ZIF-8, BMDM@ZIF-8 and OMC+BMDM@ZIF-8.

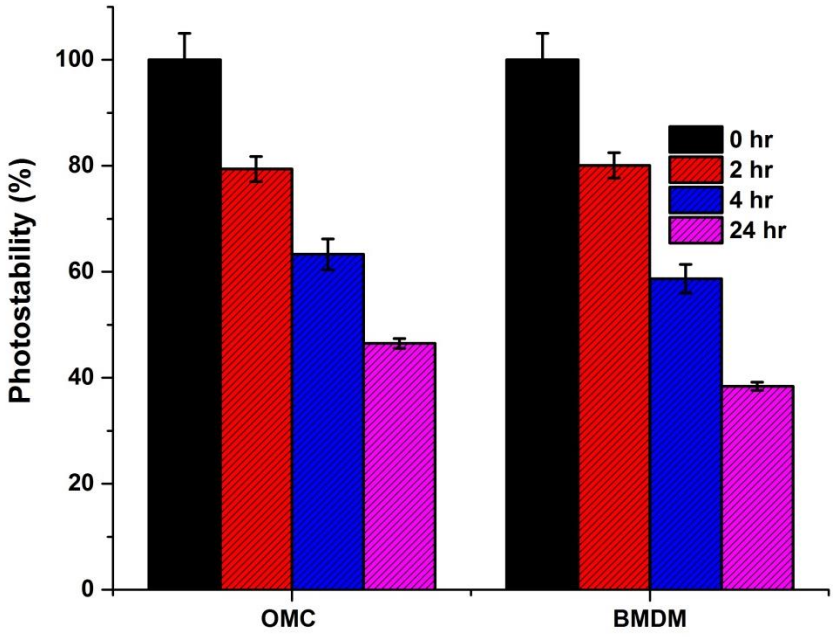

Figure S3. Photostability curves of **(a)** 0.08% OMC and **(b)** 0.09% BMDM mixed with aveeno cream for studying the degradation rate of UV filters after 0, 2, 4 and 24 hours upon UV exposure.

SUPPLEMENTARY TABLE

Table ST1. Pore parameters of void ZIF-8 and microencapsulated OMC-ZIF-8, BMDM-ZIF-8 and OMC+BMDM-ZIF-8.

Sample	**ZIF-8**	**OMC@ZIF-8**	**BMDM@ZIF-8**	**OMC+BMDM@ZIF-8**
S_{BET} (m^2/g)	893	606	856	592
S_{Lang}(m^2/g)	1344	908	1287	891
Pore volume ($cm^3\ g^{-1}$)	0.613	0.413	0.585	0.404
Average pore width (nm)	2.75	2.73	2.73	2.73