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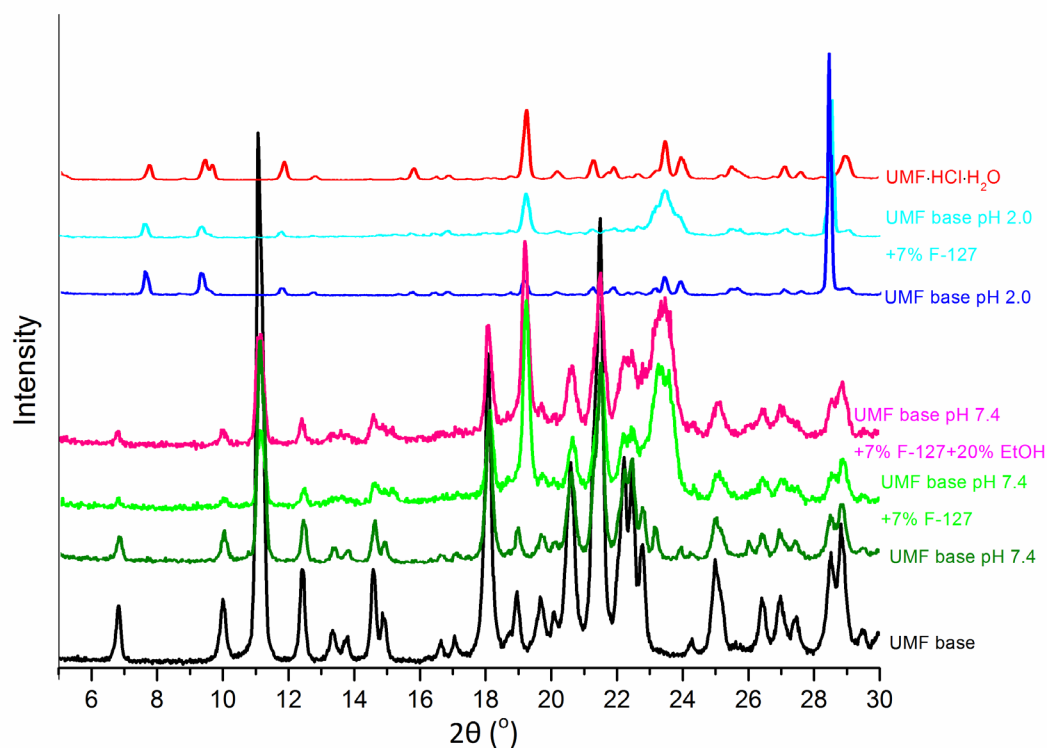


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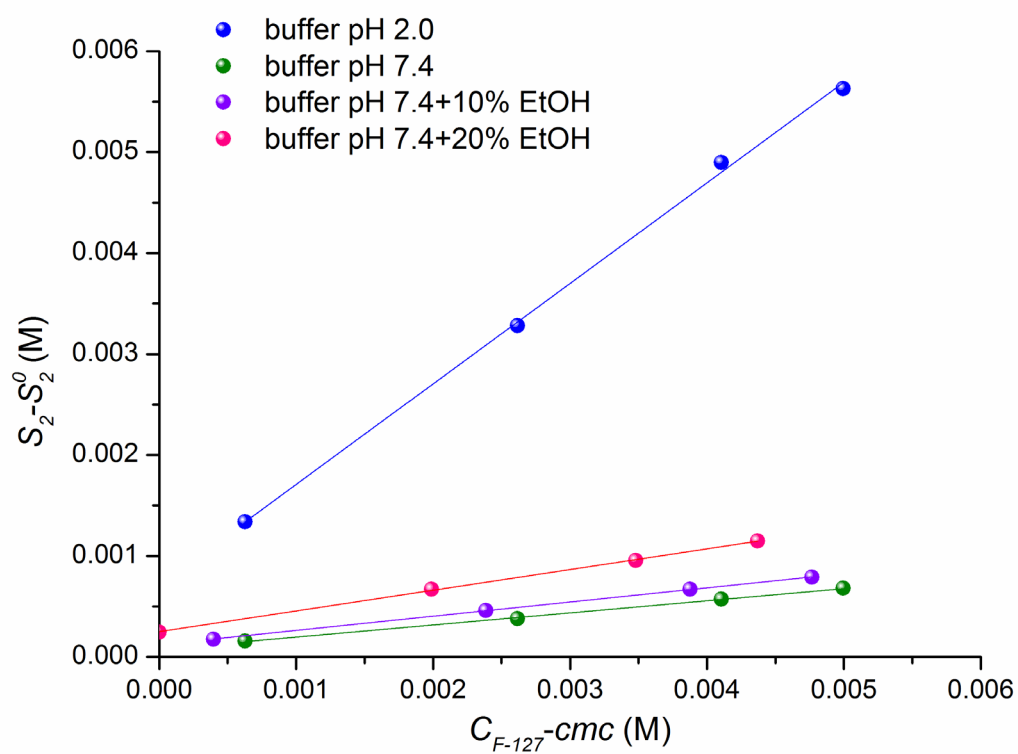


Figure S2. Plots of $(S_2 - S_2^0)$ on $(C_{F-127} - cmc)$ dependences at different concentrations of F-127 in buffers pH 2.0 (blue) and pH 7.4 (olive) and in the presence of 10 % (violet) and 20 % (pink) of ethanol.

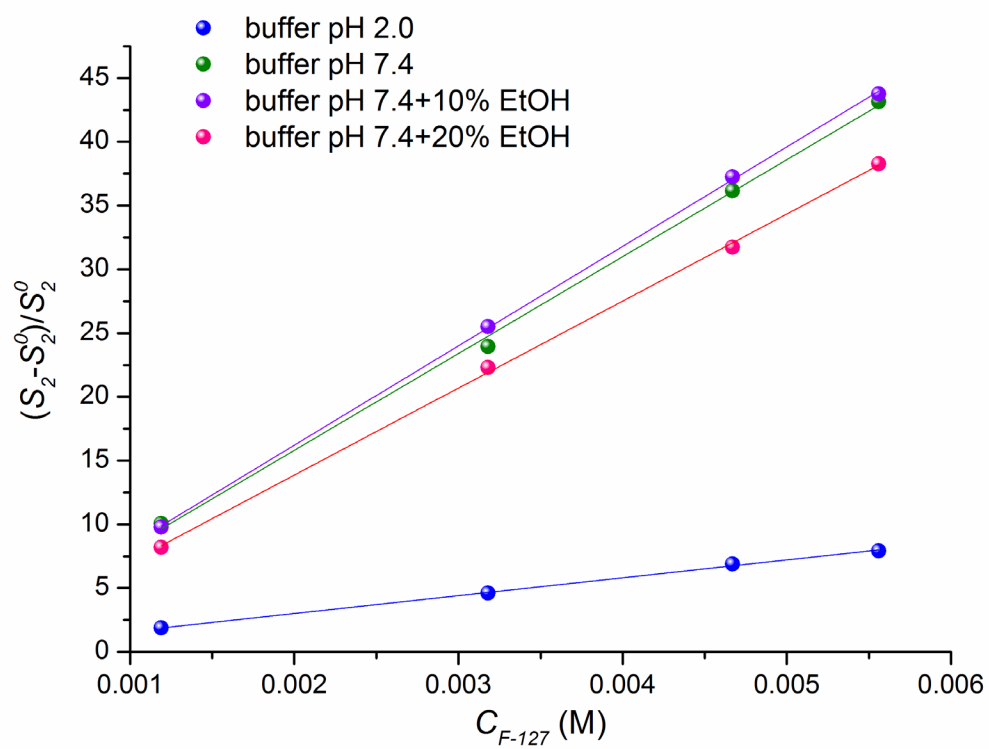


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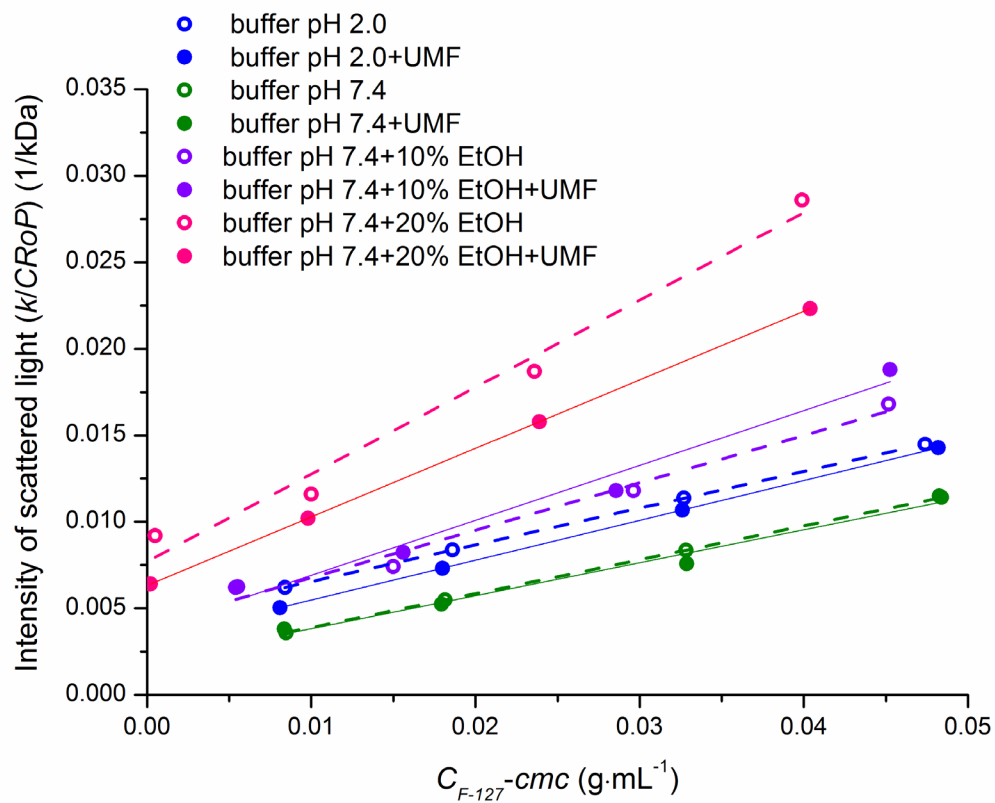


Figure S4. Debye-plots for systems of pluronic F-127 with and without UMF: buffer pH 2.0, buffer pH 7.4, buffer pH 7.4+10% EtOH and buffer pH 7.4+20% EtOH.

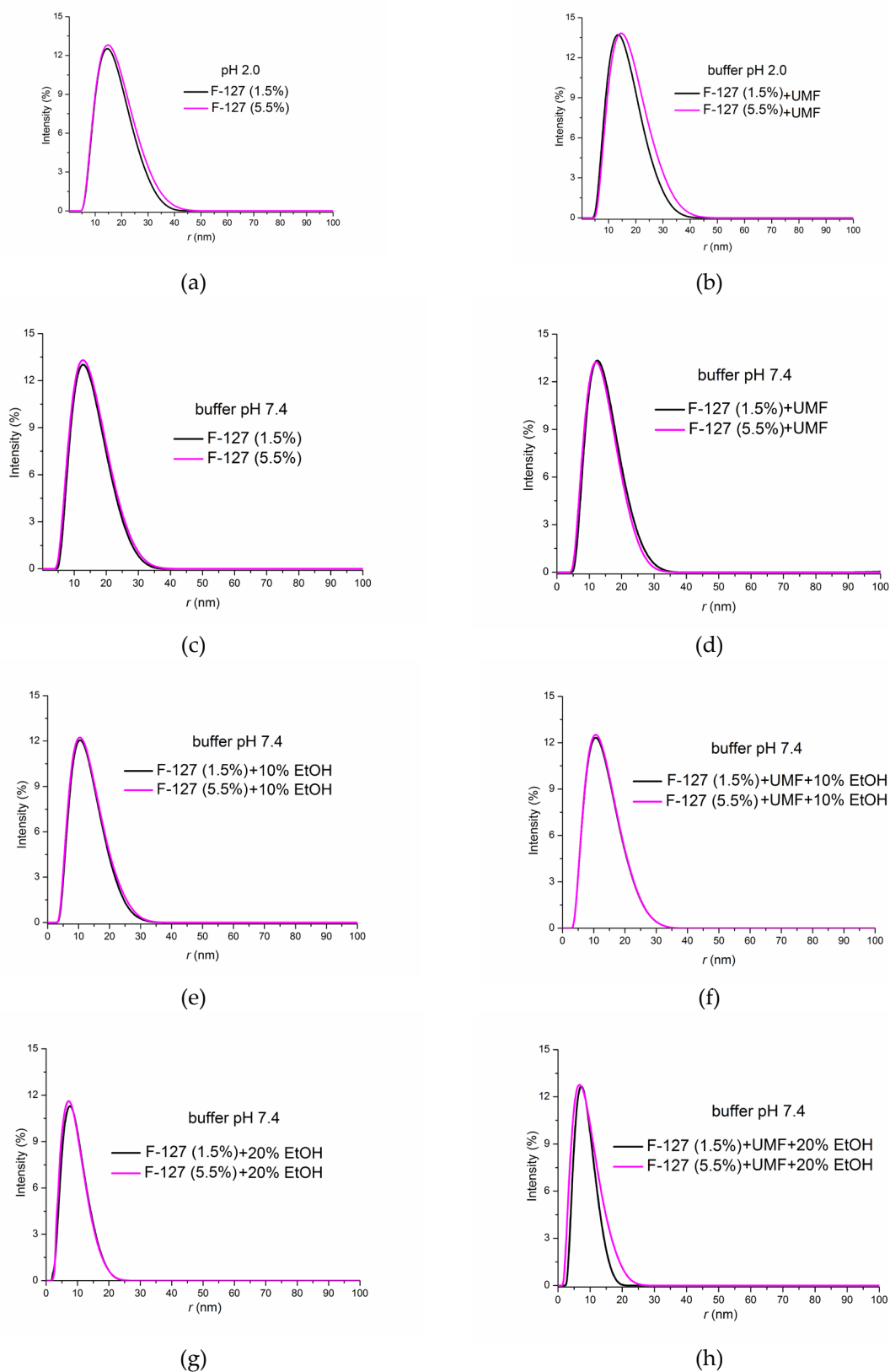


Figure S5. Size distribution of F127 micelles: (a) buffer pH 2.0; (b) buffer pH 2.0+UMF; (c) buffer pH 7.4; (d) buffer pH 7.4+UMF; (e) buffer pH 7.4+10% EtOH; (f) buffer pH 7.4+10% EtOH+UMF; (g) buffer pH 7.4+20% EtOH; (h) buffer pH 7.4+20% EtOH+UMF.

Table S1. UMF experimental solubility (S_{UMF}) in buffer pH 2.0, pH 7.4, and with the addition of F-127, and 10% or 20% ethanol at 310.15 K.

C_{F-127} (w/v%)	buffer pH 2.0	buffer pH 7.4	buffer pH 7.4 +10% EtOH	buffer pH 7.4 +20% EtOH
	$S_{UMF} \cdot 10^3$ (M)	$S_{UMF} \cdot 10^4$ (M)	$S_{UMF} \cdot 10^4$ (M)	$S_{UMF} \cdot 10^4$ (M)
0	0.71±0.02	1.60±0.01	1.80±0.01	0.30±0.01
1.5	2.05±0.04	1.74±0.03	1.94±0.01	2.76±0.03
4.0	3.99±0.08	3.93±0.03	4.77±0.03	7.00±0.05
5.5	5.61±0.04	5.86±0.02	6.89±0.07	9.83±0.11
7.0	6.34±0.03	6.96±0.04	8.06±0.07	11.80±0.09

Each solubility value represents the mean \pm SD ($n \geq 3$)

The standard uncertainties are $u(T) = 0.15$ K

Table S2. Donor solution concentrations (C_0), steady state flux (J), and permeability coefficients (P_{app}) of UMF, 310.15 K.

Investigated system	C_0 (M)	J ($\mu\text{mol} \cdot \text{cm}^{-2} \cdot \text{sec}^{-1}$)	P_{app} ($\text{cm} \cdot \text{s}^{-1}$)
pH 7.4 cellulose membrane MWCO 12-14 kDa			
UMF	$1.04 \cdot 10^{-5}$	$4.36 \cdot 10^{-7}$	$(4.19 \pm 0.11) \cdot 10^{-5}$
UMF+10% EtOH	$8.55 \cdot 10^{-6}$	$4.93 \cdot 10^{-7}$	$(5.76 \pm 0.14) \cdot 10^{-5}$
UMF+20% EtOH	$1.25 \cdot 10^{-5}$	$6.25 \cdot 10^{-7}$	$(4.98 \pm 0.11) \cdot 10^{-5}$
UMF+1.5% F-127	$5.24 \cdot 10^{-5}$	$1.22 \cdot 10^{-6}$	$(2.34 \pm 0.07) \cdot 10^{-5}$
UMF+4.0% F-127	$5.75 \cdot 10^{-5}$	$1.02 \cdot 10^{-6}$	$(1.78 \pm 0.04) \cdot 10^{-5}$
UMF+10% EtOH+1.5% F-127	$1.88 \cdot 10^{-5}$	$4.86 \cdot 10^{-7}$	$(2.59 \pm 0.06) \cdot 10^{-5}$
UMF+20% EtOH+1.5% F-127	$7.77 \cdot 10^{-5}$	$3.58 \cdot 10^{-7}$	$(4.61 \pm 0.04) \cdot 10^{-6}$
pH 2.0 cellulose membrane MWCO 12-14 kDa			
UMF	$1.41 \cdot 10^{-4}$	$2.76 \cdot 10^{-6}$	$(1.96 \pm 0.07) \cdot 10^{-5}$
UMF+1.5% F-127	$3.57 \cdot 10^{-4}$	$4.19 \cdot 10^{-6}$	$(1.17 \pm 0.02) \cdot 10^{-5}$
UMF+4.0% F-127	$1.26 \cdot 10^{-3}$	$7.09 \cdot 10^{-6}$	$(5.63 \pm 0.18) \cdot 10^{-6}$
pH 2.0 cellulose membrane MWCO 6-8 kDa			
UMF	$1.80 \cdot 10^{-4}$	$3.27 \cdot 10^{-6}$	$(1.82 \pm 0.05) \cdot 10^{-5}$
UMF+1.5% F-127	$3.07 \cdot 10^{-4}$	$3.36 \cdot 10^{-6}$	$(1.09 \pm 0.02) \cdot 10^{-5}$