ELECTRONIC SUPPLEMENTARY INFORMATION

Smoothly shifting fluorescent windows: a tunable "off-on-off" micellar sensor for pH

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1. Fluorescence data fitting. The experimental I_f% vs pH data were fitted using a Marquardt-Levenberg Algorithm. The fluorescence bell-like profiles were splitted in two sigmoidal fuctions, each described by the Equation S1. The maxima of the bell were taken as the splitting points for each curve.
The parameters 'a' and 'b' are related to the height and smoothness of the sigmoidal, y_0 is the initial I_f%, and x_0 represents the pH of the inflection point. The y_0, A, B, x_0 values that best-fit the experimental profiles, are reported in Table S2.

$$I_f\% = y_0 + \frac{A}{1 + e^{\frac{pH - x_0}{-B}}} \qquad \text{Equation S1}$$

Table S2. y_0, A, B, x_0 best-fitting values, for the If% vs pH profiles obtained at the various SDS molar fractions. Values indicated as "fit DP" are those of the ascending sigmoid in the If % vs pH bell-shaped curve. Values indicated as "fit DDA" are those of the decending part.

	SDS 10		SDS 9 TX100 1		SDS 8 TX100 2		SDS 7 TX100 3		SDS 1 TX100 1	
Fit DP		Std. Error		Std. Error		Std. Error		Std. Error		Std. Error
a	97.1226	0.4093	89.4245	0.3624	86.1849	0.5908	83.9261	0.5933	76.1549	0.3849
b	0.3535	0.0055	0.3904	0.005	0.3733	0.0075	0.3941	0.0088	0.4083	0.0057
x0	8.2187	0.0072	7.7147	0.006	7.241	0.0089	6.9434	0.0102	6.4468	0.007
y0	3.3114	0.1558	10.3988	0.1398	13.9347	0.2047	15.4749	0.2306	21.9885	0.1288
Rsqr .	0.9999		0.9999		0.9997		0.9996		0.9998	

Fit DDA		Std. Error		Std. Error		Std. Error		Std. Error		Std. Error
a	62.5798	11.2921	54.5949	3.7952	59.525	2.5458	56.8011	3.4806	62.7222	1.041
b	-0.4259	0.0807	-0.4006	0.0356	-0.474	0.0339	-0.3951	0.0504	-0.4782	0.0143
x0	11.1791	0.1277	11.1934	0.0489	10.8763	0.0294	10.6544	0.0499	10.166	0.0138
y0	39.2717	9.6378	47.5065	3.2072	42.6234	1.8891	41.9403	2.4857	38.7068	0.4374
Rsqr .	0.99		0.998		0.9992		0.9931		0.9996	

SDS 3 TX100 7		SDS 2 TX100 8		SDS 1 TX100 9		SDS 0 TX100 10	
	Std. Error		Std. Error		Std. Error		Std. Error
79.6423	1.2336	78.3939	1.1502	77.8354	3.8192	78.0312	5.9232
0.4477	0.0169	0.4363	0.0155	0.4522	0.0505	0.3943	0.0442
6.2836	0.019	5.6934	0.0159	4.5968	0.0508	3.7184	0.0598
22.9797	0.4944	21.5093	0.5192	22.5305	3.1344	22.7342	4.9742
0.9994		0.9996		0.9972		0.9981	

	Std. Error		Std. Error		Std. Error		Std. Error
64.9915	1.0502	64.7977	1.2309	71.3442	2.8718	71.2261	0.4976
-0.429	0.0149	-0.4146	0.0174	-0.4814	0.049	-0.437	0.0075
9.8694	0.0127	9.2875	0.0182	8.5453	0.0496	7.3628	0.0082
36.3542	0.6342	33.4492	0.6701	30.0017	1.7284	29.6729	0.2494
0.9993		0.9991		0.9944		0.9999	

Figure S1. Pyrene fluorescence intensity variation with SDS molar fraction in micellar solutions containing no bases (0.05M $NaNO_3$).