

**Table S1:** Dependence of the amount of adsorbed surfactant within the porous particles on bulk surfactant concentration. Amount of surfactant adsorbed per mg (second column) when 5 $\mu$ m porous particles with 6nm in pore size are added to the surfactant solution of different concentrations. Concentration of the surfactant left in the solution  $C_{\text{residual}}$  is in the last column. The adsorption is given in various units.

$C_{\text{azo}}/\text{mM}$	$C_{\text{azo}} (\mu\text{mol}/\text{mg})$	Molecule/ $\text{nm}^2$ *	(Molecule/Particle)**	$C_{\text{residual}}/\text{mM}$
0.5	0.06	0.04	$0.5 \cdot 10^{10}$	0.29
1	0.21	0.14	$1.5 \cdot 10^{10}$	0.3
2	0.35	0.25	$2.5 \cdot 10^{10}$	0.8

\* Adsorbed density of the surfactant in units of molecules per  $\text{nm}^2$

\*\* Number of surfactant molecules absorbed by one particle