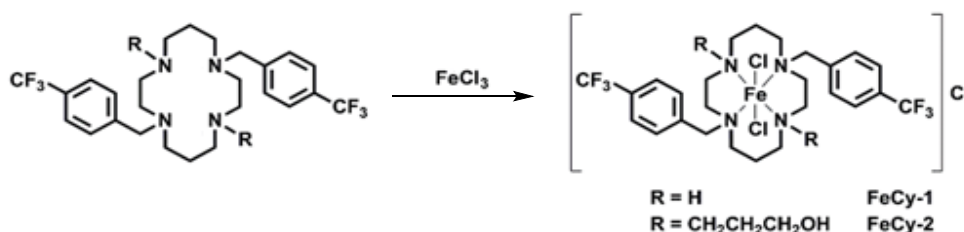


Supplementary Material

1. Synthetic procedures for the preparation of cyclam-based iron(III) complexes

Complexes $[\{H_2(4\text{-CF}_3\text{PhCH}_2)_2\text{Cyclam}\}FeCl_2]Cl$, **FeCy-1**, and $[\{(HOCH_2CH_2CH_2)_2(4\text{-CF}_3\text{PhCH}_2)_2\text{Cyclam}\}FeCl_2]Cl$, **FeCy-2**, were prepared according to previously published procedures as shown in Scheme S1 [16,21,40].



Scheme S1. Synthetic procedure for the preparation of $[\{H_2(4\text{-CF}_3\text{PhCH}_2)_2\text{Cyclam}\}FeCl_2]Cl$, **FeCy-1**, and $[\{(HOCH_2CH_2CH_2)_2(4\text{-CF}_3\text{PhCH}_2)_2\text{Cyclam}\}FeCl_2]Cl$, **FeCy-2**.

FeCy-1 [16]: $H_2(4\text{-CF}_3\text{PhCH}_2)_2\text{Cyclam}$ [40] (0.50 g, 0.97 mmol) was dissolved in 40 mL of methanol and a 10 mL solution of $FeCl_3$ (0.16 g, 0.97 mmol) in methanol was added. The reaction mixture was stirred at room temperature for 4 h. The solution was filtered and evaporated to dryness. The crude was washed with small portions of diethyl ether and dried under reduced pressure. The product was obtained as a yellow powder in 89% yield (0.59 g, 0.87 mmol).

FeCy-2 [21]: $(HOCH_2CH_2CH_2)_2(4\text{-CF}_3\text{PhCH}_2)_2\text{Cyclam}$ [21] (300 mg, 0.47 mmol) was dissolved in a mixture of methanol/chloroform (5:1) and $FeCl_3$ (77 mg, 0.47 mmol, 1 equiv.) was added. The precipitate was separated by filtration, washed with small portions of n-hexane, and dried under reduced pressure. The product was obtained as an orange powder in 89% yield (421 mg, 0.53 mmol, 89%).

2. Flow cytometric dot-plots of *C. marina* biofilm cells grown on coatings

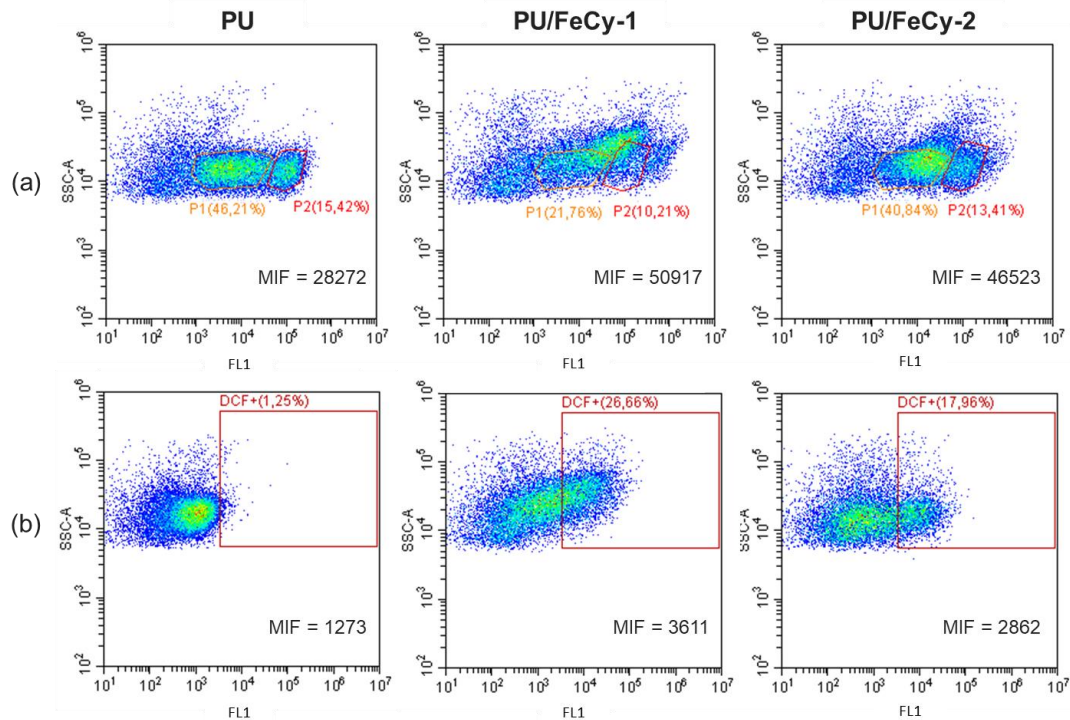


Figure S1. Representative flow cytometric dot-plots of *C. marina* biofilm cells grown on **PU** (control surface), **PU/FeCy-1** and **PU/FeCy-2** surfaces for 24 h and stained with (a) 5-CFDA (a metabolic activity marker) and (b) DCFH-DA (a reactive oxygen species (ROS) indicator). (a) Biofilm cells grown on the **PU** surface exhibited two populations, denoted as P1 and P2. These cell populations shifted in fluorescence (FL1 (525/40 nm)) when exposed to either **PU/FeCy-1** or **PU/FeCy-2**, resulting in an increase in mean intensity of fluorescence (MIF) and indicating changes in their metabolic activity. (b) Biofilm cells grown on **PU/FeCy-1** or **PU/FeCy-2** exhibited a higher percentage of DCF-positive cells (DCF+) compared to those grown on the **PU** control surface. Consequently, there was an increase in MIF of cells exposed to the PU-modified surfaces, indicating ROS production.