

# Pathway-dependent properties of a multi-stimuli sensitive biosynthetic hybrid network

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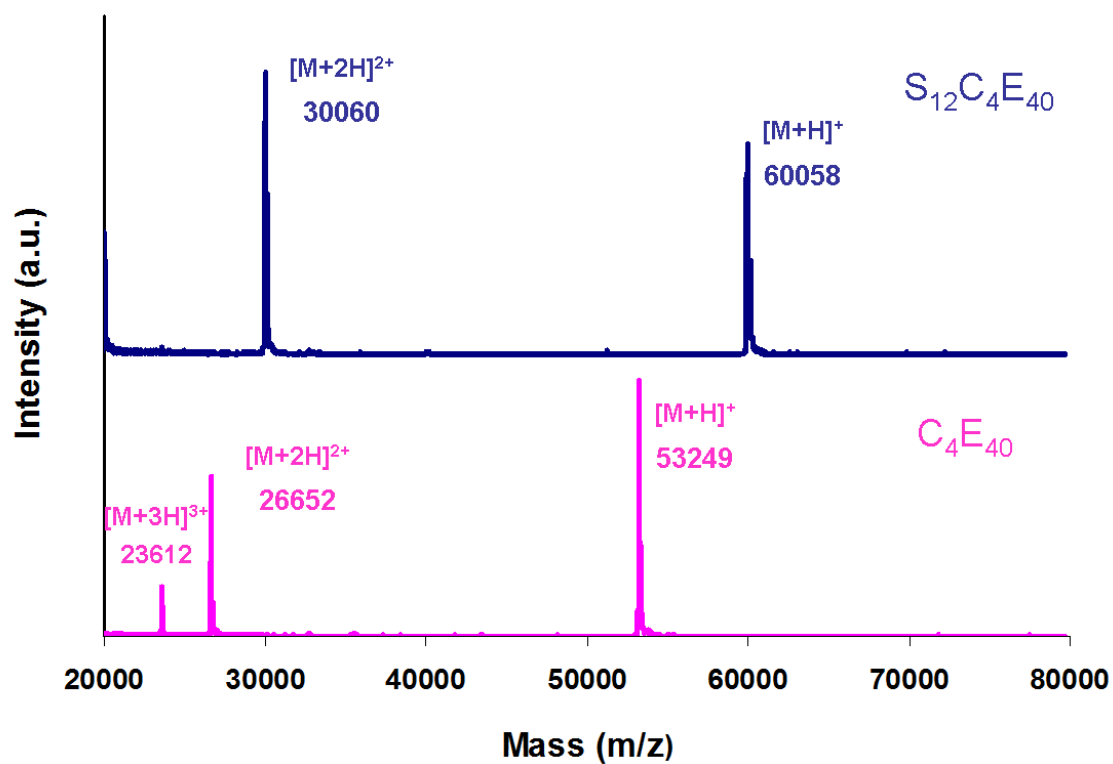
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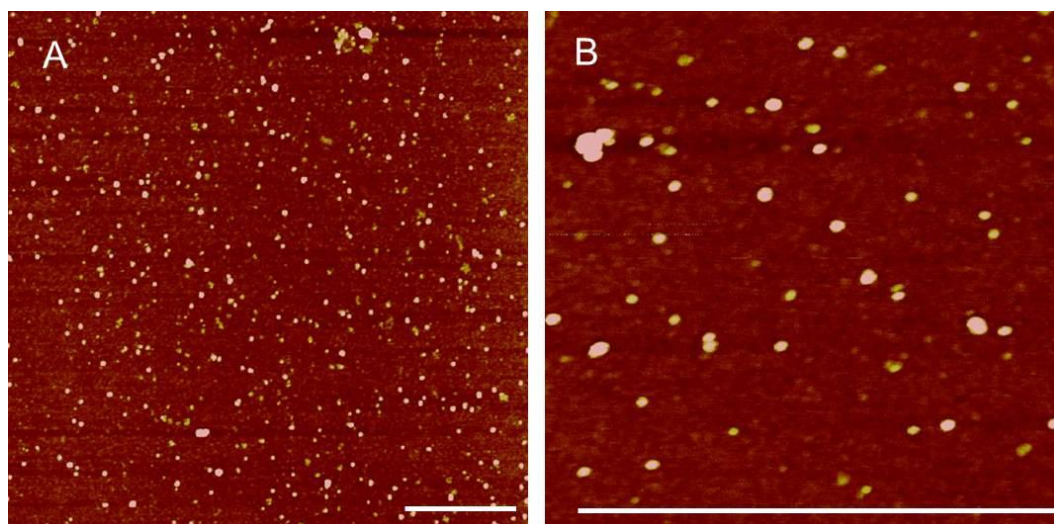
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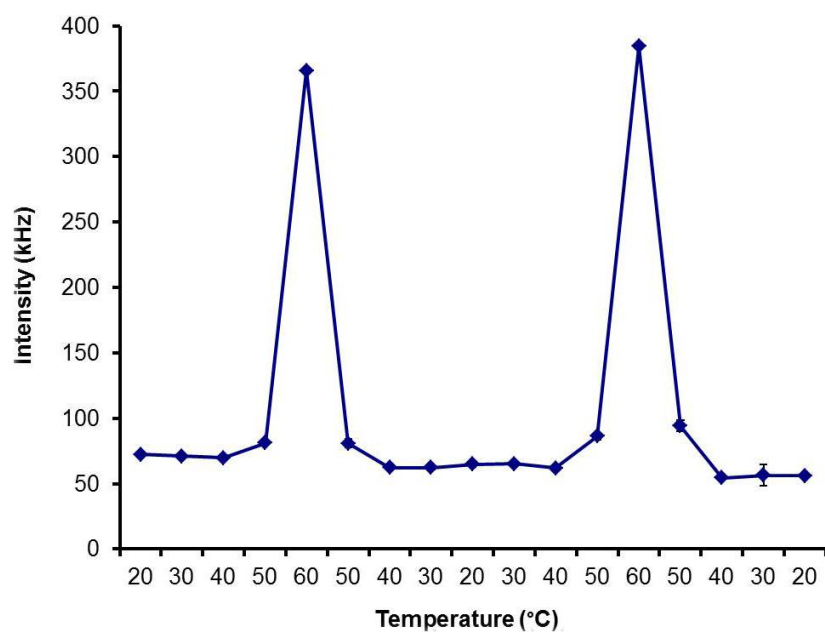
## SUPPORTING INFORMATION



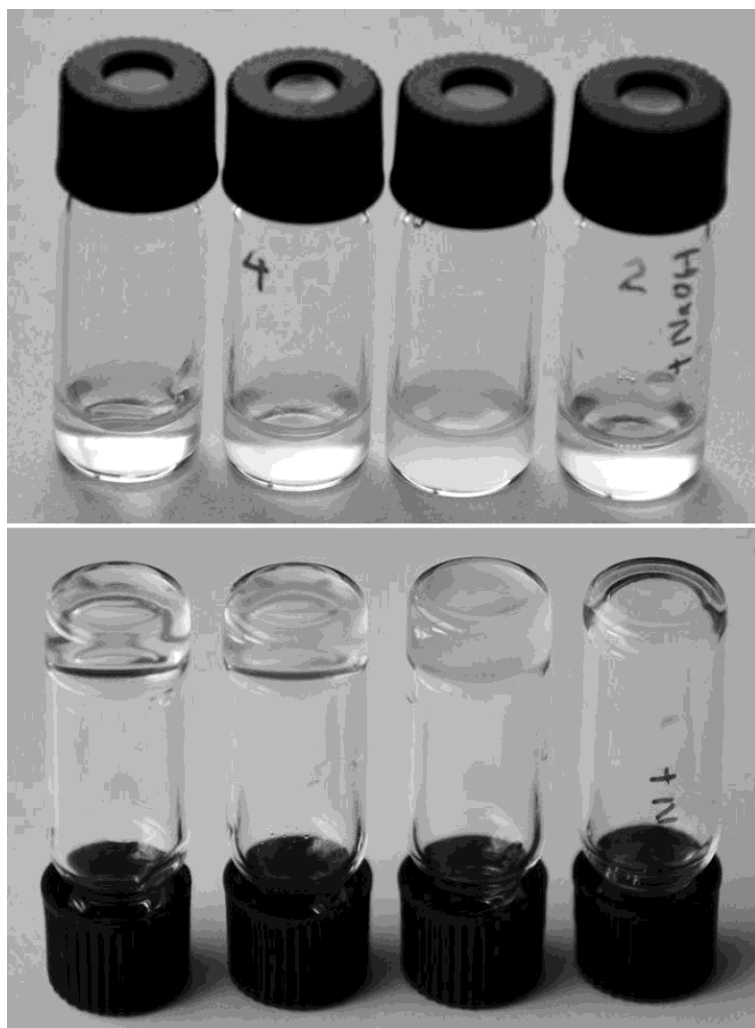
**Figure S1:** MALDI-TOF of  $S_{12}C_4E_{40}$  and  $C_4E_{40}$ . Various molecular ions are indicated.



**Figure S2:** AFM images of micelles formed by  $S_{12}C_4E_{40}$  (1 g/L) in 2.5 M NaCl pH 11 after heating at 60 °C for 30 min (B is a zoomed-in area of A). The size of the objects is ~30 nm. Scale bars correspond to 1  $\mu\text{m}$ .



**Figure S3:** Reversible micellization of  $S_{12}C_4E_{40}$  (1 g/L) in 2.5 M NaCl at pH 11.



**Figure S4:** Gels of  $S_{12}C_4E_{40}$  formed at pH 2 overnight in different conditions. (Top figure from left to right): transparent gel formed at 35 °C without NaCl, gel with NaCl formed at 20 °C, milky gel with NaCl formed at 35 °C, gel with NaCl formed at 35 °C is disrupted after 1M NaOH is added; (Bottom figure) upside down vials with the same order.