

Supplementary Information for
**Assembly of sodium soap fibers and fibrillar particles triggered
by the dissolution of sodium chloride crystals**

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This supplement contains:
Captions to Movies S1 and S2
Figs. S1 and S2

Movie Captions

Movie S1. This movie depicts growth of sodium laurate fibers nucleated on the surface of a sodium chloride crystal. The crystal dissolution and fiber growth occur simultaneously. This particle was imaged in Brightfield mode.

Movie S2. This movie demonstrates the flexibility of the sodium laurate fibers. The edge of a fibrillar particle is depicted as it is brushed with the end of a glass pulled micropipette. This particle was imaged in Brightfield mode through crossed polarizers.

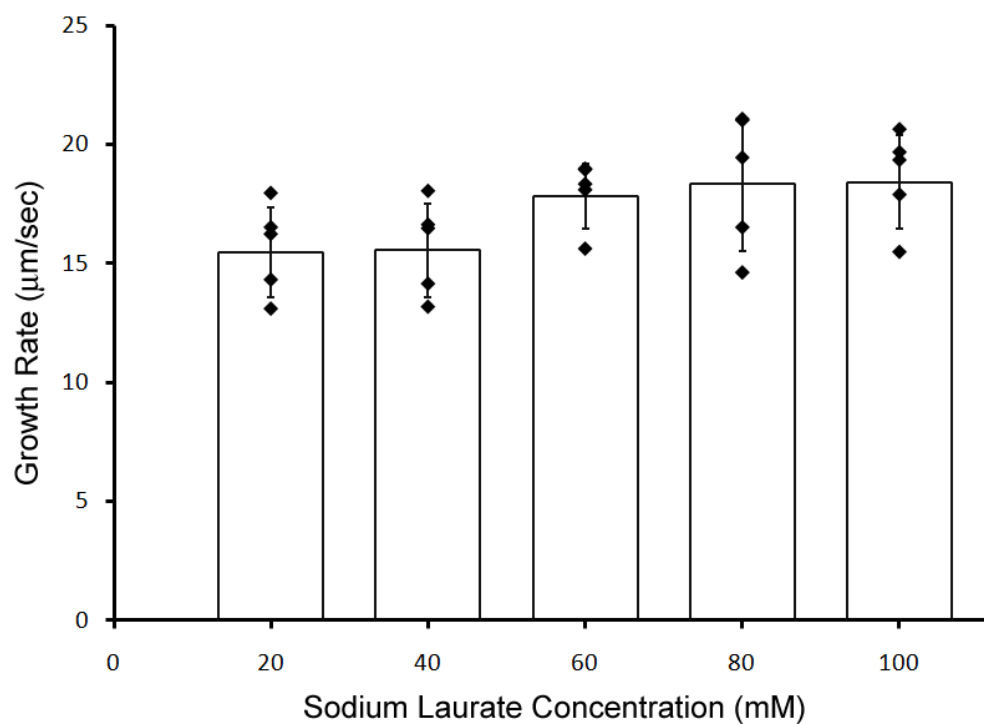


Figure S1. Fiber growth rate as a function of sodium laurate (SL) concentration. Each bar is the average of five measurements and labeled with standard deviation bars. Individual data points are represented by diamonds. The growth rate was not strongly affected by SL concentration over the range of 20 mM to 100 mM. The average growth rate for all twenty-five measurements was $17.3 \pm 2.4 \mu\text{m/s}$.

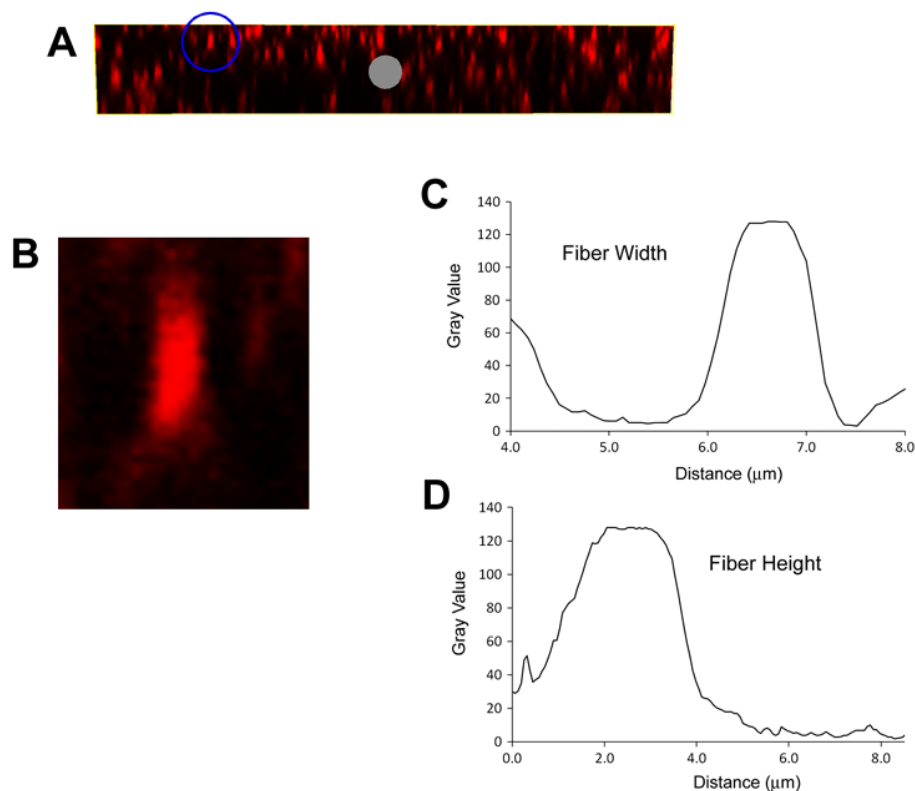


Figure S2. Measurements of the width and height of an SL fiber doped with red fluorescent dil and imaged by fluorescence CLSM. **(A)** An oblique slice of the 3D rendering depicted in Fig. 5C. The purpose of this slice was to image the fiber cross-sections in a plane perpendicular to the long axis of the fibers. The blue circle depicts the cross-section of the fiber selected for measurement. This fiber in particular was selected because it was spatially separated from nearby fibers, exhibited high fluorescence, and exhibited a defined shape and border. **(B)** A magnified image of the selected fiber's cross-section. **(C)** A profile of gray values across the width of the fiber's cross-section. The width at half-height of this peak is 1.0 μm . **(D)** A profile of gray values across the height of the fiber's cross-section. The width at half-height of this peak is 2.7 μm .