

Supporting Information for:

Biomorphic Triangulations: Constructing an Additional Formation Pathway to Achieve Hierarchical Self-Evolution in Biomorphs

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Section S1: Materials

All reagents were commercially available and used as received without further purification. Sodium meta-silicate pentahydrate ($\text{Na}_2\text{SiO}_3 \cdot 5\text{H}_2\text{O}$, 99%), barium chloride dihydrate ($\text{BaCl}_2 \cdot 2\text{H}_2\text{O}$, 99%) and magnesium chloride hexahydrate ($\text{MgCl}_2 \cdot 6\text{H}_2\text{O}$, 99%) were purchased from Tianjin Kermel Chemical Reagent. The concentrated hydrochloric (HCl , 36%-38%) was purchased from Real&Lead Chemical. Acetone (99.5%) and ethanol (99.7%) were purchased from Rionlon. 0.1M HCl was obtained by diluting concentrated hydrochloric acid with water for the adjustment of pH. All water used in our experiments was distilled deionised water and bubbled with N_2 (99.999%, purchased from Tianjin Liufang Industrial Gas Co., Ltd) for more than 2 hours to drive off pre-dissolved CO_2 . Aluminum plate (40 cm×40 cm×0.5 mm) was manually cut into 4 cm×2 cm and used as growth substrate.

Section S2: Supplementary Figures

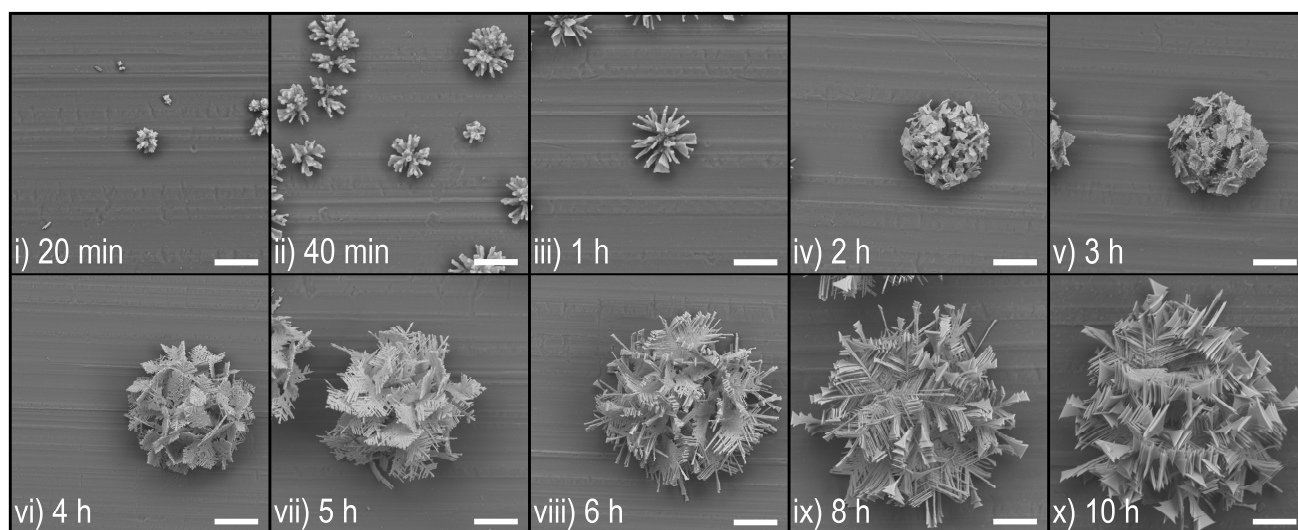


Fig. S1 Original images of the self-evolution process of "triangles".

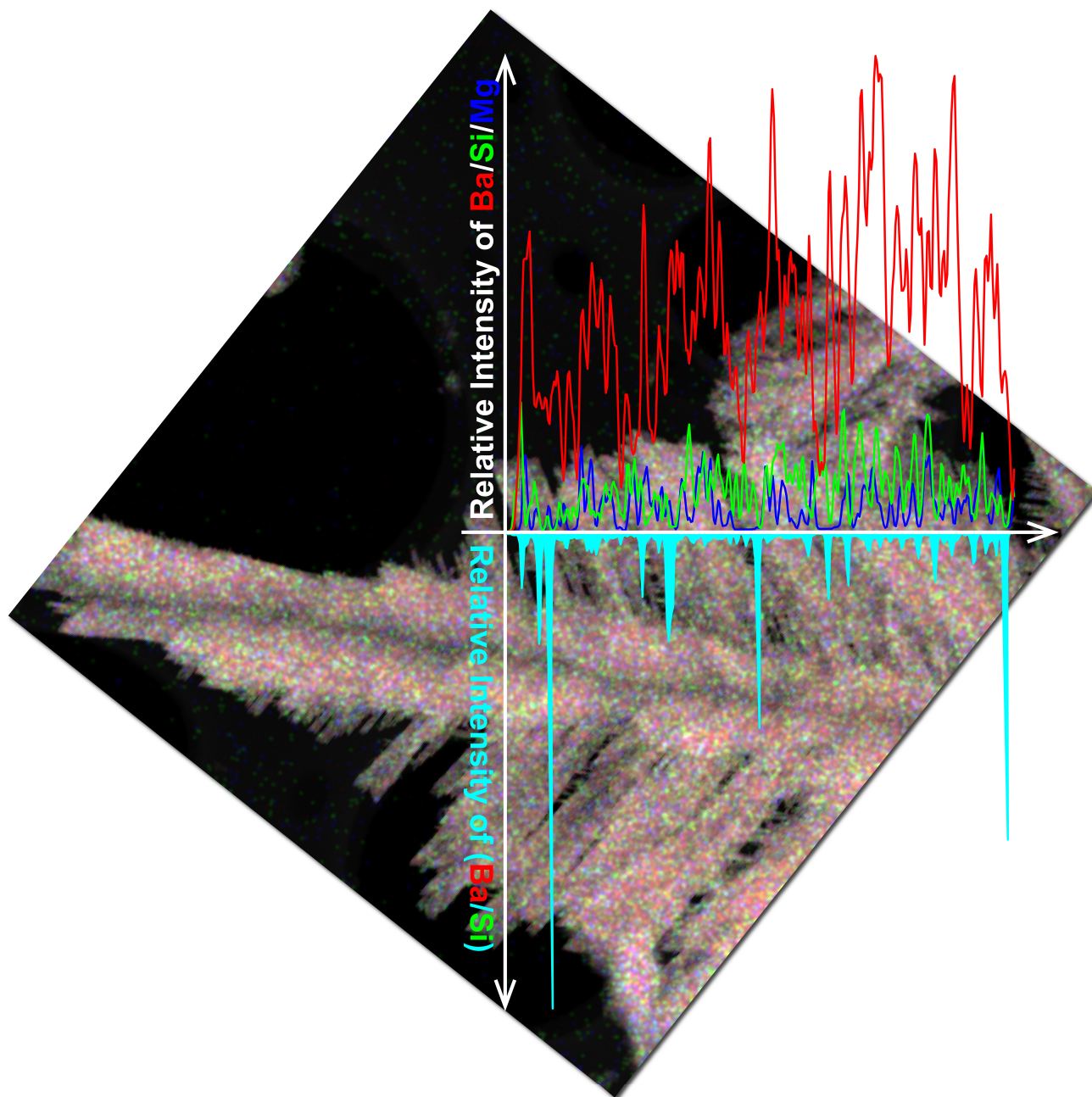


Fig. S2 Relative intensity profile of Ba, Si, Mg and Ba/Si of a forming branch.