

## Supplemental Information

### Controlled Formation of Biosilica Structures *In Vitro*

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**Incorporation of silica-condensing peptide into the silica structure:** The silica precipitate obtained using the R5 peptide was collected by centrifugation from the reaction solution. The pellet fraction (P) was then washed several times with distilled water was resuspended in 1 M sodium hydroxide and incubated at 95°C for 10 min. The dissolved silica fraction (S) was then neutralized with 1M Tris-HCl pH 7.5. The fractions were analyzed by SDS-PAGE and Coomassie blue staining. The majority of the Si4-1 peptide is recovered in the pellet fraction suggesting that the peptide is closely associated with the silica structures.

