Supplementary data

Exploring processing-structure-property relationships of chemically precipitated strontium silicate particles for medical applications

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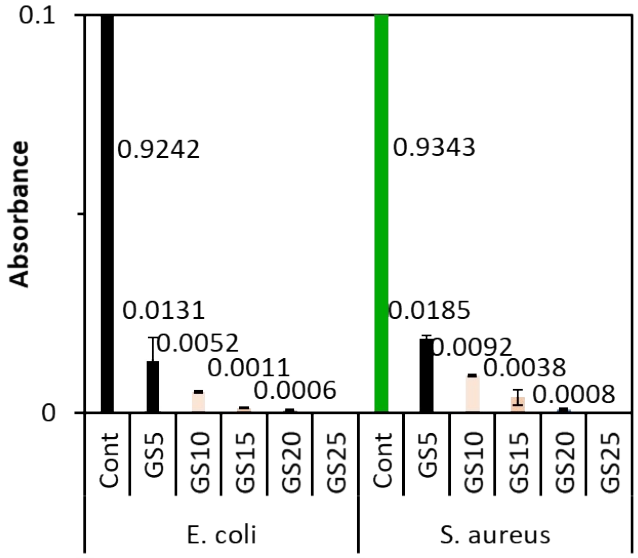

Fig. S1. Turbidity of GS with different concentrations (5, 10, 15, 20, and 25 μg/mL) after culture with *E. coli* and *S. aureus* for 24 h. The number is the detected absorbance. For the sample code, for example, the GS20 code means using 20 μg GS for the testing.

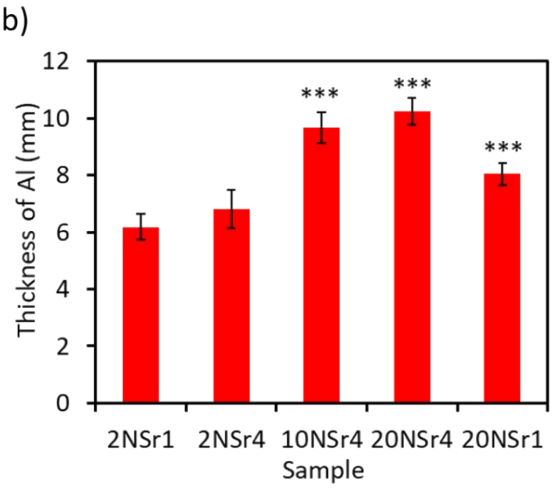

Fig. S2. (a) X-ray radiographs of Al step wedge and (b) corresponding thickness (mm) of various samples as a marker of radiopacity. The asterisk represents a statistically significant difference (***, $p < 0.001$) from 2NSr1.

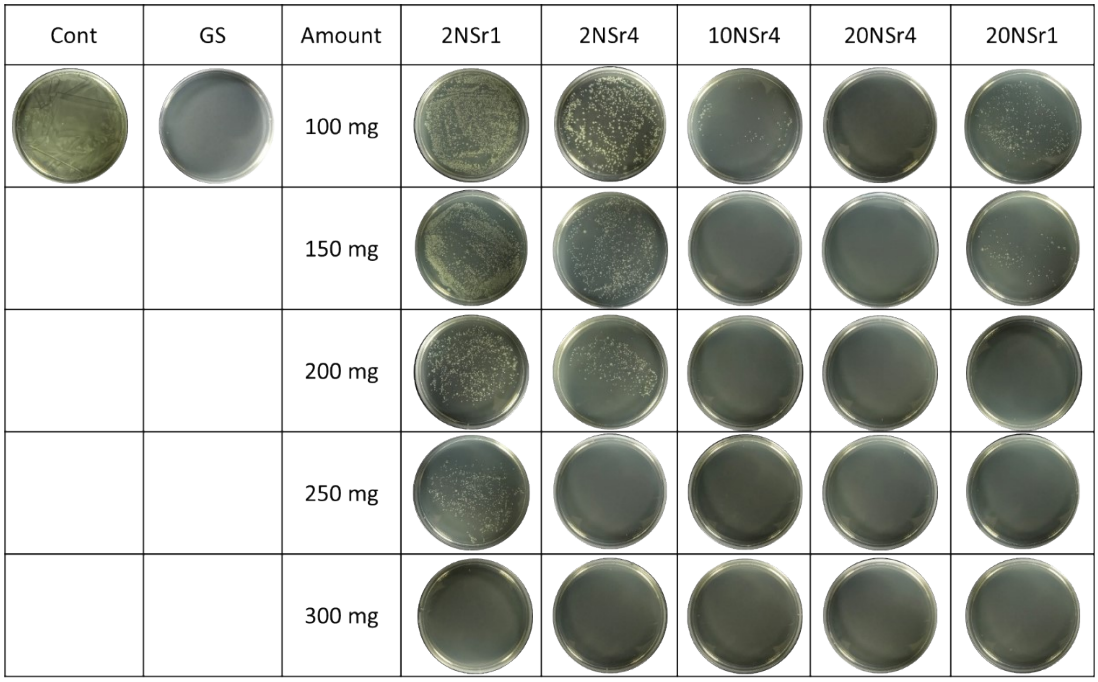

Fig. S3. Image of MBC determination of SrSi powders against *E. coli*.

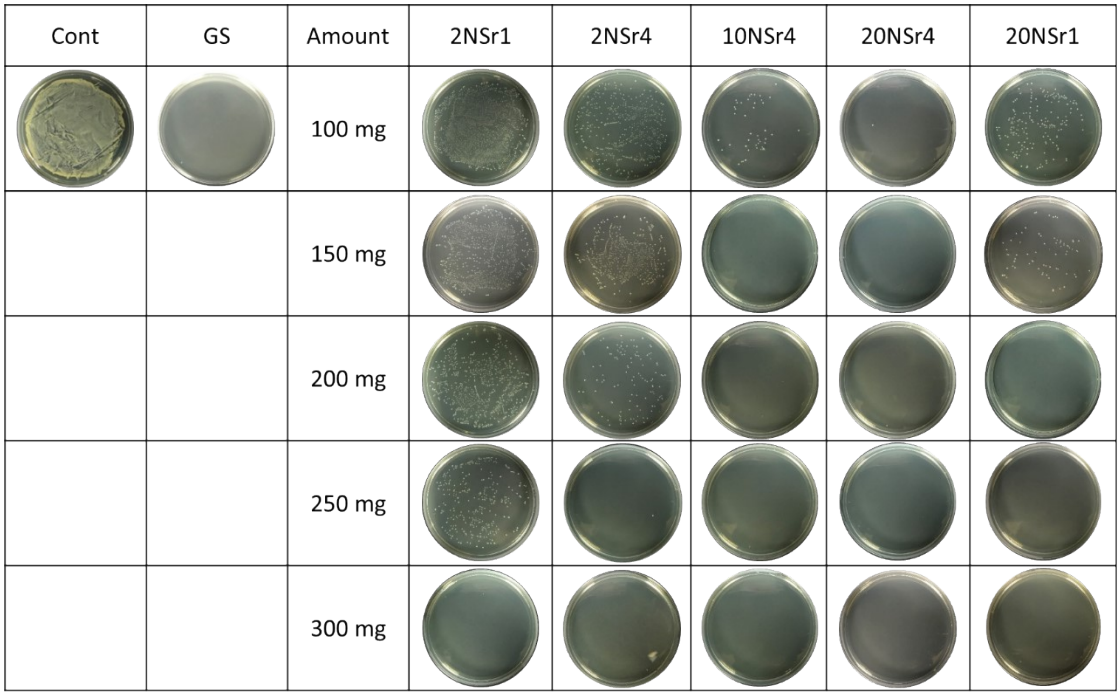

Fig. S4. Image of MBC determination of SrSi powders against *S. aureus*.

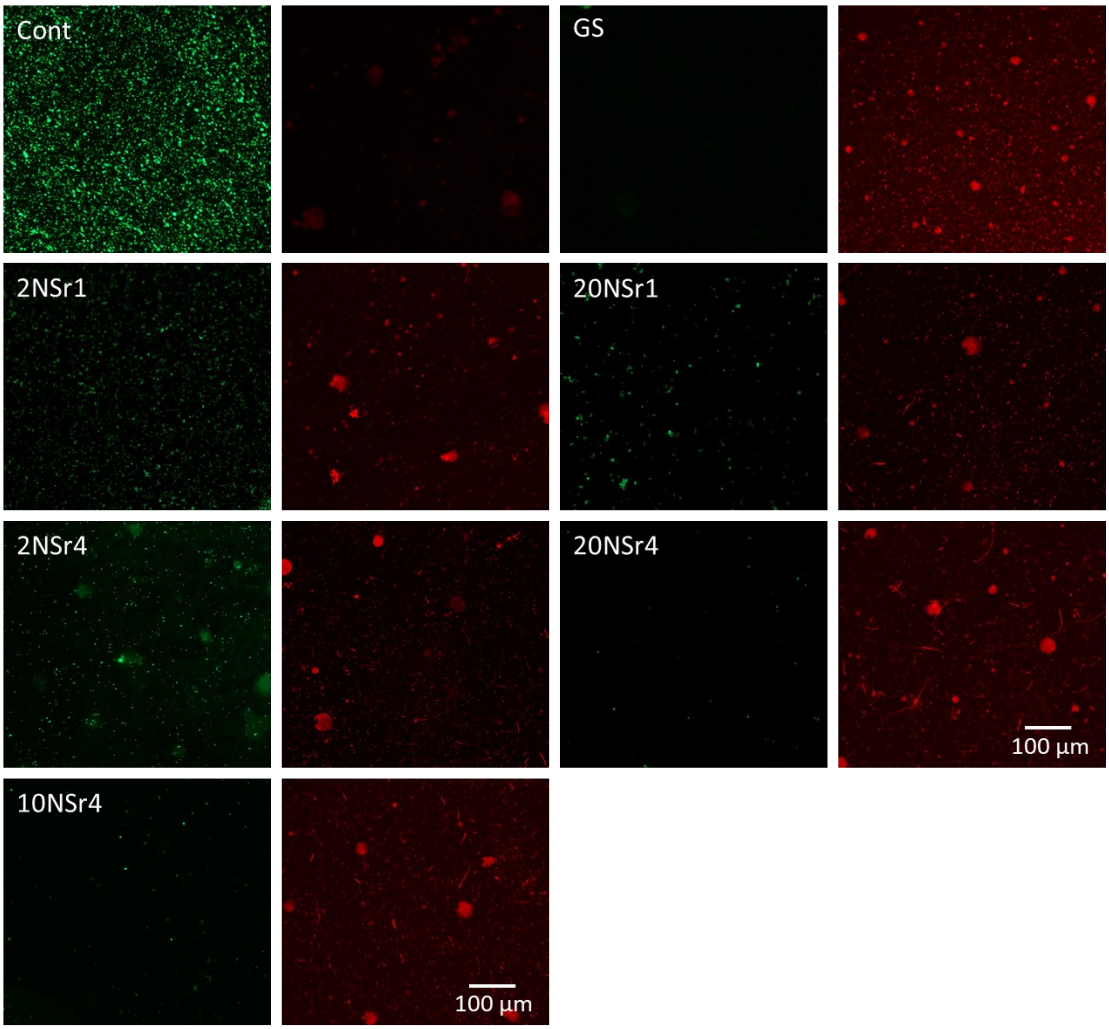

Fig. S5. Viability staining of *E. coli* exposed to control medium, GS, 2NSr1, 2NSr4, 10NSr4, 20NSr1, and 20NSr4. Viable bacteria are labeled green, and dead bacteria are labeled red.

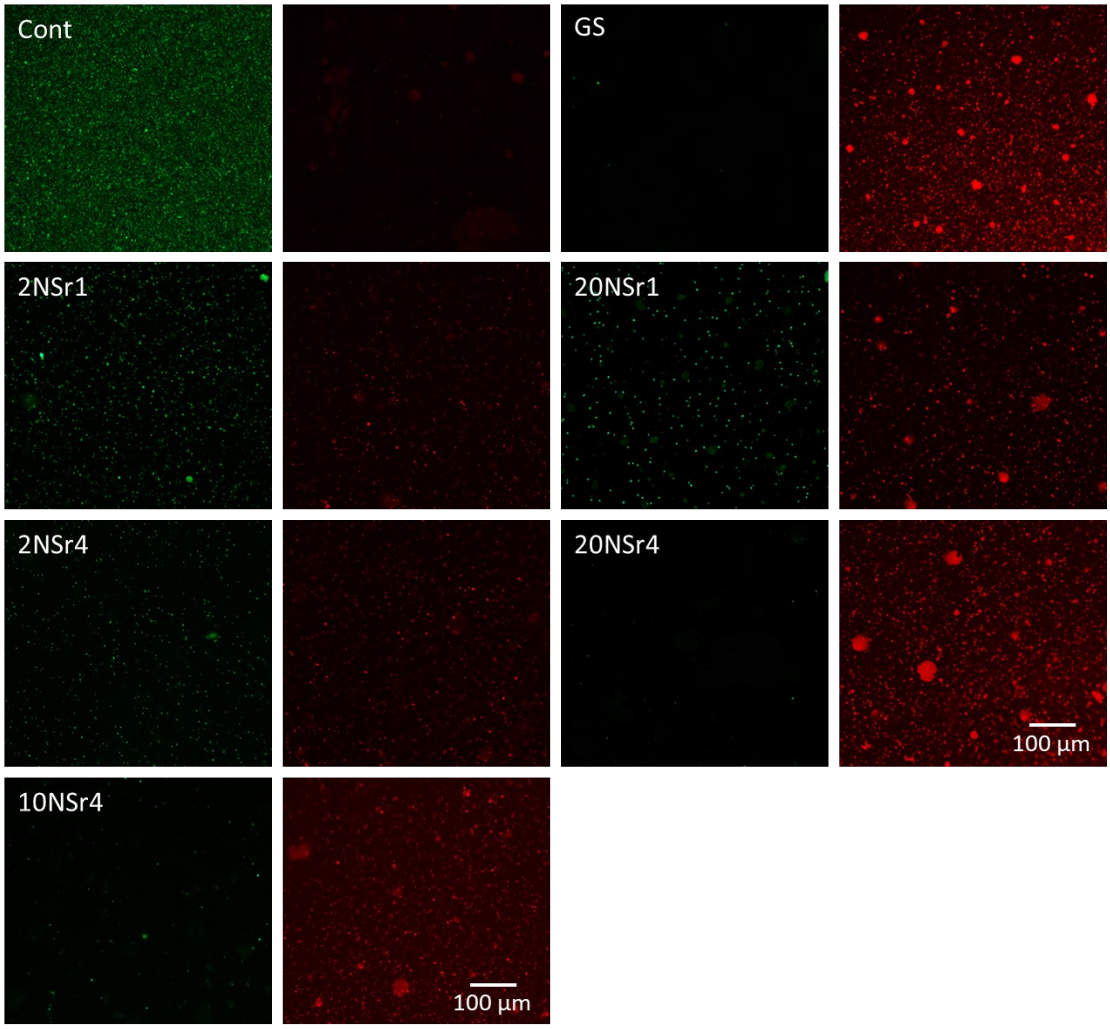

Fig. S6. Viability staining of *S. aureus* exposed to control medium, GS, 2NSr1, 2NSr4, 10NSr4, 20NSr1, and 20NSr4. Viable bacteria are labeled green, and dead bacteria are labeled red.

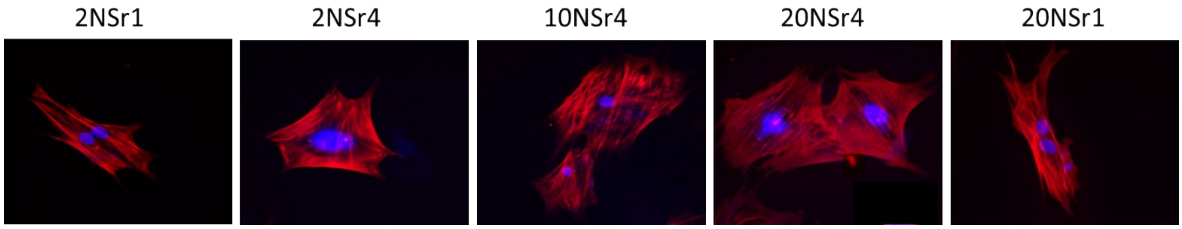

Fig. S7. Cytoskeleton staining for hMSC culture on the specimens for 1 day without the osteogenic differentiation agents. Cells were stained for nuclei (blue) and actin cytoskeleton (red).

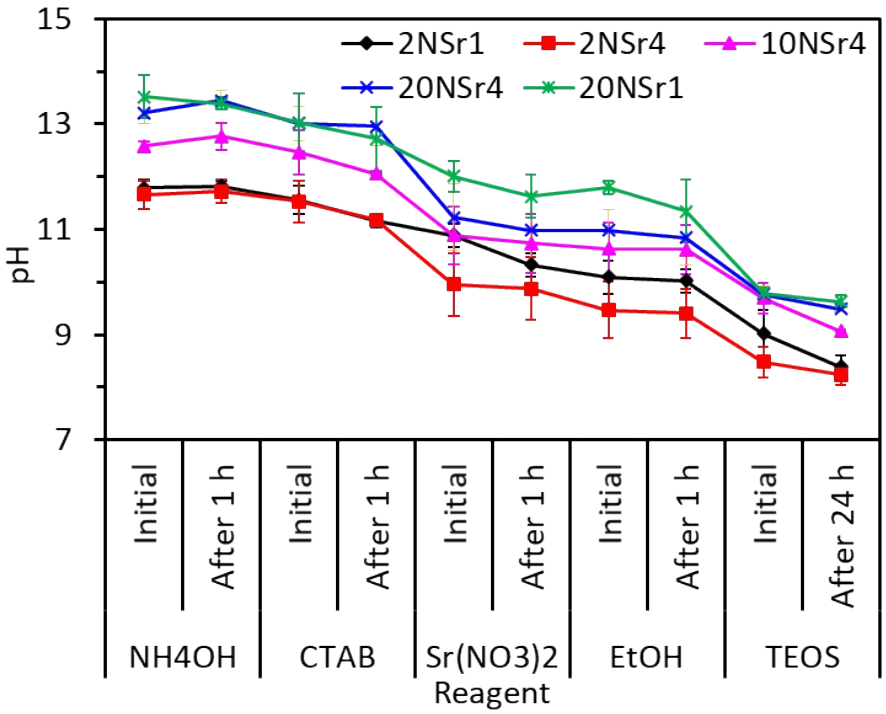

Fig. S8. Changes in the solution pH at the initial stage and after mixing for a specific time during the preparation process. The pH was recorded with a digital pH meter (pH 6175; JENCO, San Diego, CA, USA)