

## Transformation of vaterite nanoparticles to hydroxycarbonate apatite in a hydrogel scaffold: Relevance to bone formation

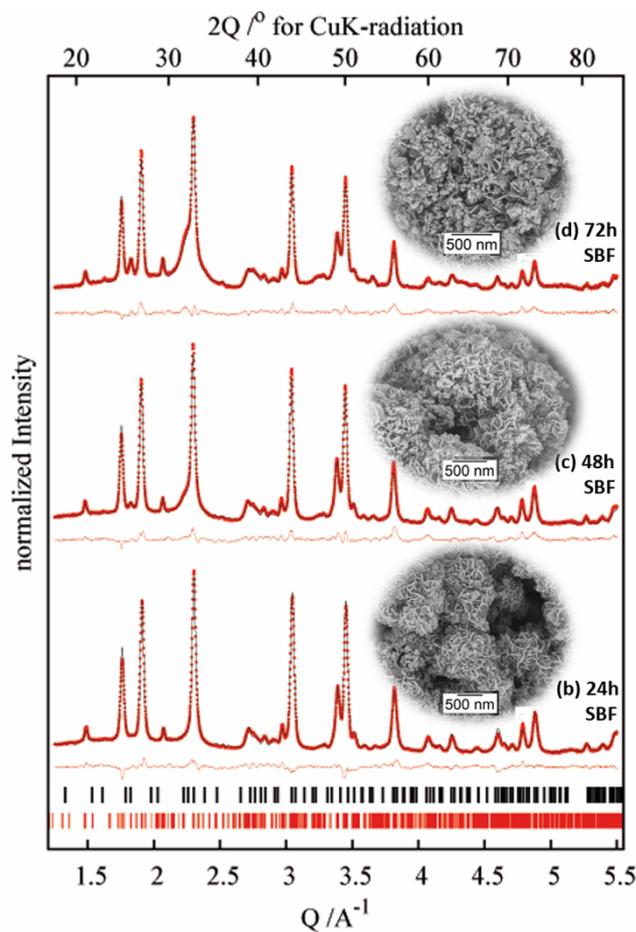
Romina Schröder,<sup>a,d</sup> Hannah Köhring,<sup>b,c</sup> Timo Schüler,<sup>a</sup> Martin Panthöfer,<sup>a</sup> Ronald E. Unger,<sup>d</sup> Holger Frey,<sup>b</sup> Wolfgang Tremel<sup>a\*</sup>

<sup>a</sup> Institute of Inorganic Chemistry and Analytical Chemistry, Johannes Gutenberg-University of Mainz, Duesbergweg 10-14, 55128 Mainz, Germany. Fax: +49 6131 39-25605; Tel: +49 6131 39-25135; E-mail: tremel@uni-mainz.de

<sup>b</sup> Institute of Organic Chemistry, Johannes Gutenberg-University of Mainz, Duesbergweg 10-14, 55128 Mainz, Germany.

<sup>c</sup> Graduate School Materials Science in Mainz, Staudinger Weg 9, 55128 Mainz, Germany

<sup>d</sup> Institute of Pathology, REPAIR Lab, Johannes Gutenberg-University of Mainz, Langenbeckstraße 1, 55131 Mainz, Germany.



**Fig. S1.** Quantitative phase analysis and determination of the crystallite size based on the XRD data after soaking vaterite nanoparticles in SBF at 37 °C for (a) 24 h (b) 48 h and (c) 72 h. Red dots are measured data, black lines correspond to the adjustment and the red lines show the difference. The red marks indicate vaterite and the black marks indicate HA.