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| | **Experiment title: X-ray powder investigation of biomimetic fluorapatite** | **Experiment number**: CH 830 |
| **Beamline**: ID 09 | **Date of experiment**: from: 26. April 2000 to: 28. April 2000 | **Date of report**: 2. Sept. 04 |
| **Shifts: 12** | **Local contact(s)**:M. Hanfland | *Received at ESRF:* |

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**Report:**

The data have been successfully analysed and a contribution with the title *Chemical and Structural Investigations of Biomimetically Grown Fluorapatite-Gelatin Composite Aggregates* was written by *S. Busch, U. Schwarz, and R. Kniep* and accepted in Advanced Functional Materials 13 (2003) 189 – 198. Especially the x-ray diffraction data measured at the ESRF were so impressive that we were offered to have them shown on the inner title page. The abstract of the contribution is given below.

*Abstract*

The fractal morphogenesis of bio-mimetically grown fluorapatite-gelatin composite aggregates has earlier been described merely phenomenological. The present investigation proceeds towards a characterisation of a variety of chemical and structural properties of the aggregates in order to gain deeper insight into the mechanisms of pattern formation and the development of hierarchical structures during an in vitro bio-mineralization process. On the basis of the experimental results we develop a model describing the organisation of the aggregates as a nano-composite superstructure.