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Limitation of quantitative measurement to biological samples by PIXE

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PIXE method has been widely used in investigating **biological** and medical **samples** for many years because of its non-destructive, sensitive and multi-element measurement nature. Nevertheless much thought and care must go into consideration of the experimental details in order to obtain quantitative results. During our recent work on studying therapeutic effect of rhPTH(1-34) on Osteoporosis in rats, it was found that a large uncertainty of element concentration measurement could be occurred due to inhomogeneous and irregular surface of the bone **samples**. The physical processes caused such uncertainty and possible approaches to solve the problems have been discussed.

Abstract Options:

Session: Pitfalls in Ion Beam Analysis

Keywords: **PIXE**, **Biological samples**, Quantitative measurement

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