

MS19-1-1 Theoretical considerations of radiation damage effects in mercury-containing compounds
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Abstract

Radiation damage in mercury compounds [1] will be examined theoretically. Since mercury (5d elements in general) has the K-edge energy levels below the energy of X-ray and usually used synchrotron radiation, absorption is a natural phenomena. This can be either manifested in higher residual densities around the heavy element atoms [2,3], or can lead to further disintegration of the crystal. Herein, we will consider the hypothesis that radiation damage is driven by a gross change of geometry of Hg containing model compounds in the excited state, which is promoted by absorption.

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References

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