EXAFS and XANES of Ca2MnReO6 under pressure up to 1.2 GPa

Orlando, M. T. D.[1], J.L.Passamai Jr[1], Depianti, J. B.[1], Souza, D. O.[1], Rodrigues, V. A.[1], Corrêa, H. P. S.[2], Rossi, J. L.[3], Martinez, L. G.[3], and Melo, F. C. L.[4]

[1] Universidade Federal do Espírito Santo - Vitória ES Brazil
[2] Universidade Federal do Mato Grosso do Sul - Campo Grande MS Brazil
[3] Instituto de Pesquisas Energéticas e Nucleares - São Paulo SP Brazil
[4] Centro Técnico Aeroespacial - São José dos Campos SP Brazil

EAXFS measurements at ambient pressure were investigated in order to determine the ReO6 and MnO6 octahedral coordination in the Ca2MnReO6 double perovskyte. The valence of Mn and Re was determined taken into account the MnO, MnO2, ReO2 and ReO3 calibrators. EXAFS pattern behavior of ReO6 and MnO6 octahedral was also investigated under hydrostatic pressure up to 1.2 GPa. A CuBe pressure cell with B4C anvils was used to applied pressure in situ. Our conclusions are that the both octahedral present a tilt under pressure without change its Re-O and Mn-O coordination distances.

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