DOI: 10.1017/S1431927603446588
Microsc Microanal 9(Suppl 2), 2003

SEM, EDS, FTIR and Thermal Observations on Synthetic Hydroxyapatite Compressed Samples in the Range 2500 – 4000 lb/inch^2

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Hydroxyapatite is a very important material in the biomaterial field since theoretical, Experemetal and application points of view [1,2,3] . In this work we report results on studies of compressed samples of hydroxyapatite with Ca/P = 1.57 for the values of 2500, 3000, 3500 and 4000 lb/inch^2

Observations by low vacuum SEM and EDS (fig. 1 and 2) show changes on morphological and chemical composition in the matrix. Additionally we present infrared analysis in the range from room temperature up to 900^o C and we observe important variations that indicate changes in the structural hexagonal unit cell and correlation with mechanical treatment. Essentially, we present discussion on the experimental observance of Ca and OH concentrations variation in the physicals processes.

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[4] We would like to thank : J. Cañetas, A. Sánchez, L. Rendón, C. Zorrilla, S. Tehuacanero, P. Mexía R. Hernández, C. Flores, J. A. Lara, J. I. Golzarri, A. Sánchez, J. Martìnez.Mendoza. Dr. J.Ocotlan for technical help and DGAPAUNAM through project number IN104902 sponsored this work.

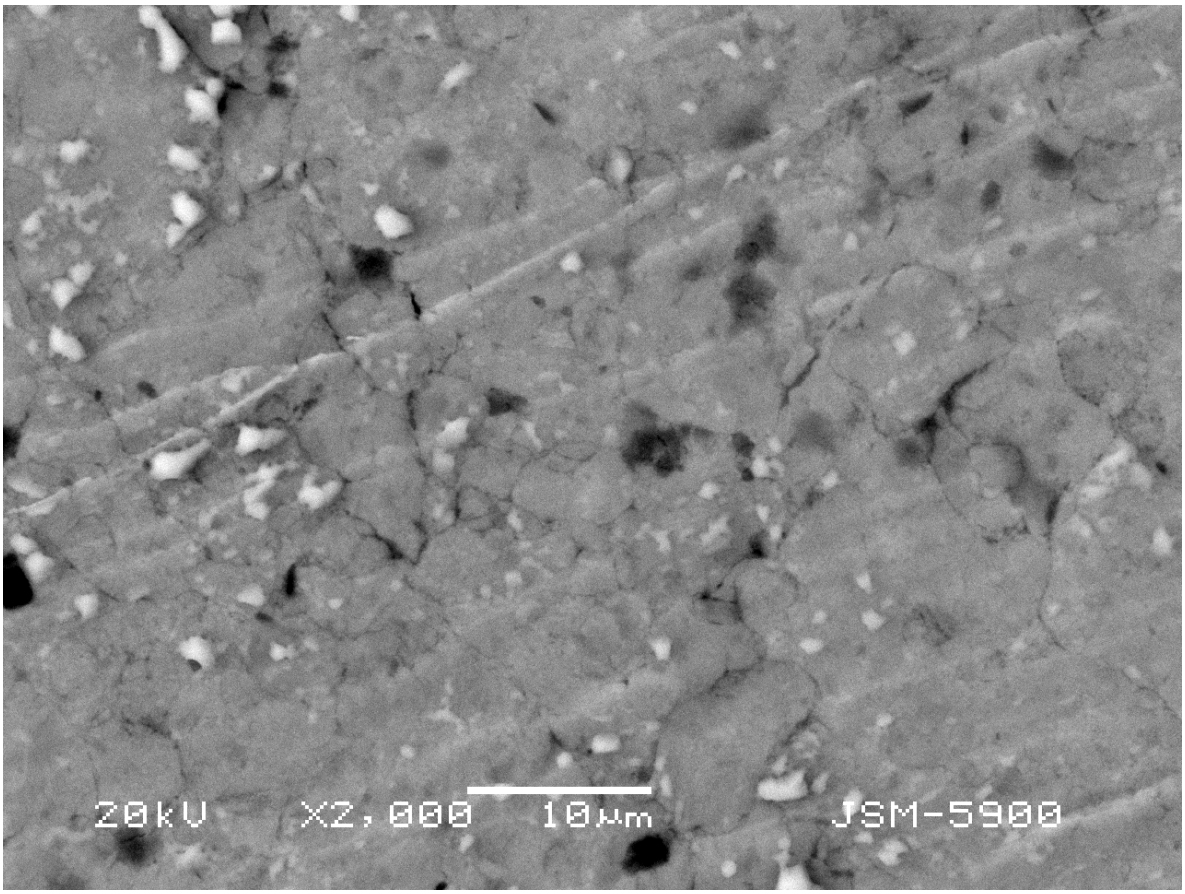

FIG: 1

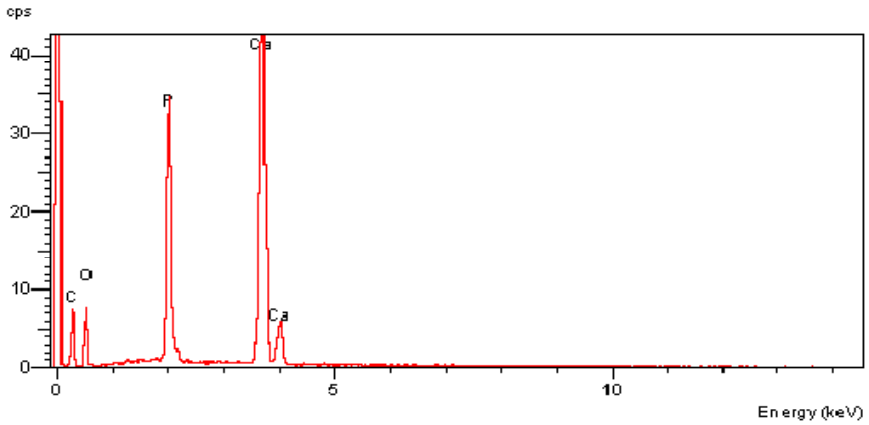

FIG.2

https://doi.org/10.1017/S1431927603446588 Published online by Cambridge University Press