



SDI FINAL EVALUATION FORM 1.1

PART 1:

Journal Name:	British Journal of Applied Science & Technology
Manuscript Number:	Ms_BJAST_24940
Title of the Manuscript:	Microstructure and In Vitro Bioactivity of Metal Substituted Hydroxyapatite
Type of Article:	Original Research Article

PART 2:

FINAL EVALUATOR'S comments on revised paper (if any)	Authors' response to final evaluator's comments
The authors have addressed most of the issues I raised in my previous evaluation. Section 2.1 – How were the Mn and Fe modified HAp samples prepared? The lack of a section describing how the products discussed in the manuscript have been synthesized and purified is a serious flaw. The authors mentioned the relevant equations in their response to my comments but did not add it and the relevant description to the manuscript. Line 167 - Where does the nitrate come from in pure HAp? If it is a residue of the synthesis, then the purification procedure for preparing HAp is not complete. Neither ref 30 nor 31 discuss nitrate decomposition, which only adds to the confusion about what the authors are reporting. There are plenty of papers that discuss the TGA behaviour of HAp and the authors are requested to reference them to explain their observations. The authors have not addressed the fundamental issue of where the nitrates come from and why the supposedly pure HAp would contain nitrates. Note that other authors do not report the presence of nitrates, including their own references 30 and 31.	• Modifications of HAp with Mn and Fe were added into section 2.1. • The represented HAp in fig 3a is for the as-prepared HAp at temperature 100 °C. Evaporation of water in calcium nitrate tetrahydrate $\text{Ca}(\text{NO}_3)_2 \cdot 4\text{H}_2\text{O}$ and ammonia occurs at temperature above 210 °C. Samples from 3b to 3f are treated thermally above this temperature from 500 °C to 900 °C. • References 30 and 31 were replaced to be I. Mobasherpour, M. S. Heshajin, A. Kazemzadeh and M. Zakeri, Journal of Alloys and Compounds 430 (1), 330-333 (2007) and K. Agrawal, G. Singh, D. Puri and S. Prakash, Journal of Minerals and Materials Characterization and Engineering 10 (08), 727 (2011).