



A new technological procedure using sucrose as porogen compound to manufacture porous biphasic calcium phosphate ceramics of appropriate micro- and macrostructure

Submitted by Emmanuel Lemoine on Wed, 12/04/2013 - 16:28

Titre	A new technological procedure using sucrose as porogen compound to manufacture porous biphasic calcium phosphate ceramics of appropriate micro- and macrostructure
Type de publication	Article de revue
Auteur	Le Ray, Anne-Marie [1], Gautier, H. [2], Bouler, Jean-Michel [3], Weiss, Pierre [4], Merle, C. [5]
Editeur	Elsevier
Type	Article scientifique dans une revue à comité de lecture
Année	2010
Date	2010/01
Numéro	1
Pagination	93 - 101
Volume	36
Titre de la revue	Ceramics International
ISSN	0272-8842
Mots-clés	B. Electron microscopy [6], B. Porosity [7], Calcium phosphate ceramics [8], Mercury porosimetry [9]
Résumé en anglais	<p>In the domain of implantable materials, the porosity and pore size distribution of a material in contact with bone is decisive for bone ingrowth and thus the control of the porosity is of great interest. The use of a new porogen agent, i.e. sucrose is proposed to create a porosity in biphasic calcium phosphate blocks. The technological procedure is as follows: sucrose and mineral powder are mixed, then compressed by isostatic compression and sintering finally eliminates sucrose. Blocks obtained were compared to a manufactured product: Triosite® (Zimmer, Etupes, France) which porosity is created through a naphthalene sublimation process. Results have shown that the incorporation of sucrose allows the preparation of porous blocks with controlled porosity varying from 40 to 80% and with macro-, meso- and microporosity characteristics depending on the percentage of sucrose added as well as on the granulometry of both sucrose and mineral powder.</p>
URL de la notice	http://okina.univ-angers.fr/publications/ua4 [10]
DOI	10.1016/j.ceramint.2009.07.001 [11]
Lien vers le document	http://dx.doi.org/10.1016/j.ceramint.2009.07.001 [11]

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