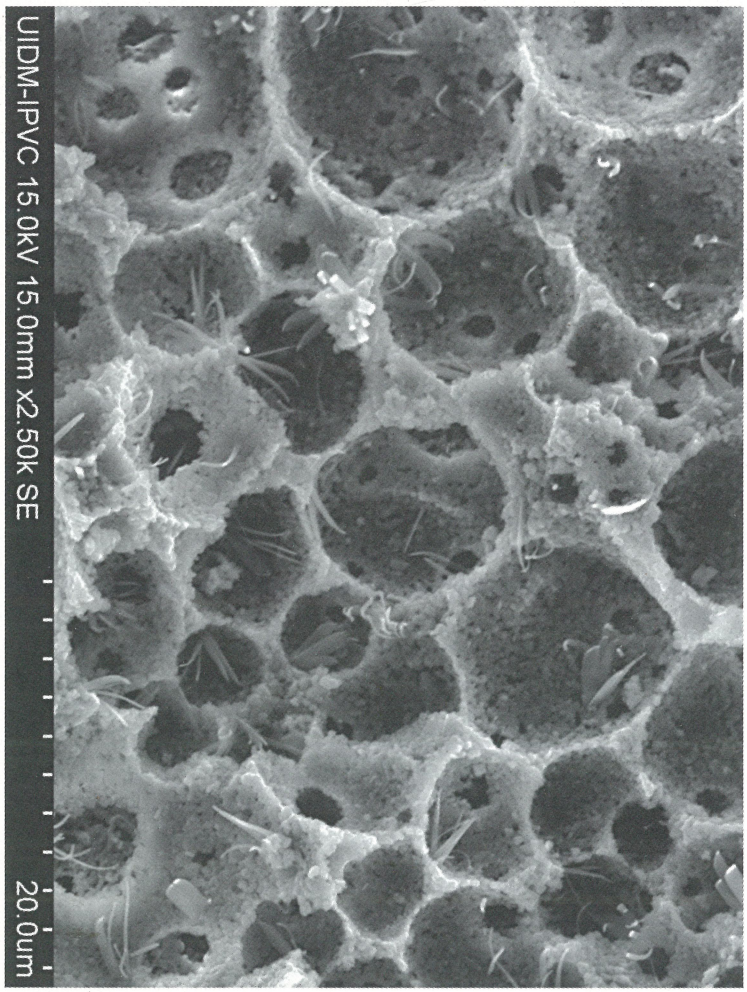
ISSN 0870-8312

www.elsevierciencia.com/ctmat

Ciência & Tecnologia dos MATERIAIS



Vol. 26 - N.º 2 Julho / Dezembro 2014

Número Especial sobre Biomateriais

Artigos correntes

Revista da SPM Sociedade Portuguesa de Materiais

ELSEVIER

Special Issue on Biomaterials

Editorial (2/2014)

The world's population over the age of 60 years is expected to reach 2 billion by 2050 and in Europe over 20% of the population will be over 65 by 2025.

This increase in longevity, coupled with the rising concern about improving the quality of life and the need for clinical interventions increasingly frequent for replacement or repair surgeries and most recently for regenerative therapies, have decisively contributed to the boost in research and emergence of companies in the field of biomedical devices. In Europe this is one of the most innovative and expanding sectors with almost 25,000 companies representing a market of more than 100 billion euros, with an average annual growth of 4% in the last six years.

The multi and interdisciplinary networks required in this field have largely contributed for the increasing number of people that in universities, laboratories and companies bestow their efforts to the development of the stimulating field of biomaterials and related topics. The communication among all these players is essential to strengthen science and technology knowledge and to improve the quality of the final products.

This special issue in Biomaterials of the official journal of the Portuguese Society of Materials (SPM) appears within this context, and covers various aspects of the processing, properties and applications of biomaterials. The invited editors of the present issue have the firm expectation of contributing to strengthening collaboration between the various stakeholders in the field of biomaterials and to stimulating further challenges and work opportunities in biomaterials and related topics. Due to editorial constrains this issue also includes two regular papers covering other topics of Science & Technology of Materials. Our thanks go to all the authors who earnestly have contributed to the content of this issue.

M.H.V. Fernandes and M. Ascensão Lopes

Cover: Porous structure for biomedical applications.
Backbone architecture produced by emulsification of molten paraffin in aqueous alumina suspension, and subsequent functionalization with bohemite by hydrothermal synthesis (by N.Vitorino, A. Kovalevsky and J. Frade)