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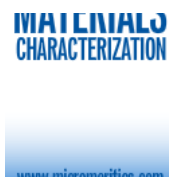


July 6, 2012

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## Researchers to Develop New Nanofunctional Materials Using Microscopic Clay Minerals

Published on July 5, 2012 at 9:49 AM

By Nick Gilbert

**In a pilot research study, scientists from the Spanish Consejo Superior de Investigaciones Científicas (CSIC) and University of Granada will work on the development of drugs that are less toxic and more efficient by using nanoscopic clay to allow controlled release of drugs in patients.**

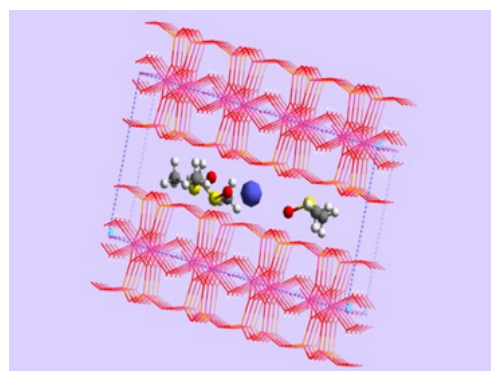
The University of Granada Campus of International Excellence BioTic has funded the project, which also includes scientists from other organizations. This study is on the basis of an analysis on desorption and adsorption of bioactive molecules on the surface of a clay mineral. The objective of the project is to create new nanofunctional materials that facilitate the controlled discharge of bioactive molecules, which are more eco-friendly when compared to other artificial systems.

The study involves the participation of six Andalusian research teams from various scientific areas, which include in vivo studies of bioactive molecules, environmental evaluation, natural resources, galenic development and computational modeling of clay minerals. Moreover, an Andalusian firm specializing in microencapsulated materials has made a contribution in this interdisciplinary research study.

Ignacio Sainz Díaz, a researcher at CSIC, and César Viseras Iborra, a professor at the University of Granada are the coordinators of the study, which includes material preparation and characterization at microscopic scale, their application in in vivo tests, and various computational studies.

Sainz Díaz and Viseras Iborra stated that the partnership between technical and scientific experts will encourage new partnerships in the coming years and will help develop innovative clay mineral applications as the basis of novel nanofunctional materials.

Source: <http://www.ugr.es/>



*Layer crystalline structure of clay minerals with adsorbate in inter-layer space*

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