ICCRAM Scientific Conference Series on
Advanced Materials, Critical Raw Materials
and Industrial Technologies

ICCRAM

International Research Center in Critical RAw
Materials for Advanced Industrial Technologies

# SEARCHING FOR NOVEL HIGH PERFORMANCE RARE-EARTH FREE PERMANENT MAGNETS


## Dr. Pablo Nieves Cordones

**INTERNACIONAL CENTRE IN CRITICAL RAW MATERIALS FOR ADVANCED INDUSTRIAL TECHNOLOGIES**


**Salón de Actos de la Facultad de Ciencias**
**19 de Mayo de 2016**
**12.00 horas**

**"Searching for novel high performance rare-earth free permanent magnets"**

Last century showed an exponential development in major industrial applications of permanent magnets (PMs) including the electric, electronic and automobile industries, communications, information technologies and automatic control engineering. Nowadays, PMs are totally dependent on expensive rare-earth (RE) elements as Sm, Dy or Nd, which are mainly produced in China, becoming critical raw materials. Therefore, development of novel high performance PM free of RE elements is one of the major scientific challenges in Europe. In this talk, Dr. Nieves will make an introduction to magnetic materials and some of its applications. In addition, he will discuss some recent strategies for minimizing the dependence of PM on RE elements. In particular, he will introduce the European project NOVAMAG, in which ICCRAM participates and where advanced theoretical modelling tools will be used for discovering new RE-free PM.

**LA ASISTENCIA AL CICLO DE CONFERENCIAS PERMITE EL RECONOCIMENTO DE 0.5 CRÉDITOS PARA ALUMNOS MATRICULADOS EN LA UBU. Más información en iccram@ubu.es**

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