

**DEPARTAMENTO DE CIENCIA**  
**E INGENIERIA DE**  
**MATERIALES E INGENIERIA**  
**QUIMICA**

## **DEPARTAMENTO DE CIENCIA E INGENIERIA DE MATERIALES E INGENIERIA QUIMICA**

### **Actividades de investigación**

#### **Tesis Doctorales**

- Caracterización de Ferritas NI-ZN Obtenidas por Compactación Uniaxial y Moldeo de Inyección de Polvos  
*Autores:* GUTIERREZ, J.  
*Director/Codirectores:* VAREZ, A.; LEVENFELD, B.  
*Año:* 2014
- Desarrollo de nuevos aceros ferríticos ODS para aplicaciones nucleares.  
*Autores:* GARCIA, N.  
*Director/Codirectores:* TORRALBA, J.M.; CAMPOS, M.  
*Año:* 2014
- Desenvolvimento de Cermets e Recobrimentos a base de Níobio para Aplicações em ferramentas (Desarrollo de cermets y recubrimientos base NB para aplicaciones en herramientas)  
*Autores:* FRANCO, E.  
*Director/Codirectores:* GORDO, E.; DA COSTA, C.E.  
*Centro donde se presentó:* CENTRO DE CIENCIAS TECNOLÓGICAS - CCT  
*Año:* 2014
- Development of binder systems based on CAB for powder injection moulding (PIM) and micro powder injection moulding ( $\mu$ -PIM) of Zircon and Invar  
*Autores:* HIDALGO, J.  
*Director/Codirectores:* TORRALBA, J.M.; JIMENEZ, A.  
*Año:* 2014
- EMI shielding composites based on magnetic nanoparticles and nanocarbons  
*Autores:* CRESPO, M.  
*Director/Codirectores:* POZUELO DE, J.; GONZALEZ, M. , M.G. Gonzalez, Maria Gonzalez  
*Año:* 2014
- High Temperature Mechanical Behavior of Al/SiC Nanoscale Multilayers  
*Autores:* LOTFIAN, S.  
*Director/Codirectores:* MOLINA, J.M.; LLORCA, J.  
*Año:* 2014
- In situ analysis of the high temperature deformation and fracture mechanisms of a gamma titanium aluminide alloy  
*Autores:* MUÑOZ, R.  
*Director/Codirectores:* E.M. RUIZ-NAVAS; PÉREZ, T.  
*Año:* 2014

- Influencia de la composición y el conformado en el comportamiento frente a la corrosión de los corrugados de acero inoxidable  
*Autores:* ALVAREZ, S.M.  
*Director/Codirectores:* VELASCO, F.J.; BAUTISTA, M. A.  
*Año:* 2014
  
- Nanocomposites de matriz epoxi: caracterización de la interfase por fluorescencia  
*Autores:* ANTONELLI, C.  
*Director/Codirectores:* SERRANO, B. ; CABANELAS, J. C.  
*Año:* 2014
  
- Optimización de fases líquidas para la sinterización de aceros: efecto en la microestructura y comportamiento dimensional.  
*Autores:* BERNARDO, E.  
*Director/Codirectores:* TORRALBA, J.M.; CAMPOS, M.  
*Año:* 2014
  
- Procesamiento por polvos de Ti mediante asociación de técnicas coloidales y pulvimetalúrgicas  
*Autores:* R. G. Neves  
*Director/Codirectores:* GORDO, E.  
*Año:* 2014
  
- Processing and properties of high performance 7075 Al and AZ91 Mg powder metallurgy alloys.  
*Autores:* JABBARI, M.A.  
*Director/Codirectores:* TORRALBA, J.M.  
*Año:* 2014
  
- Síntesis y Diseño de Nuevos Nanorrefuerzos basados en Polirrotaxanos y su efecto en una matriz Epoxídica  
*Autores:* ATENCIA, J.J.  
*Director/Codirectores:* SERRANO, B. ; POZUELO DE, J.  
*Año:* 2014
  
- Size Effects in LiF Plasticity: New Insights into the Lattice Resistance Contribution  
*Autores:* SOLER, R.A.  
*Director/Codirectores:* MOLINA, J.M.; SEGURADO, J.  
*Año:* 2014
  
- Tratamientos superficiales sobre materiales de alta energía superficial  
*Autores:* RODRIGUEZ, C.  
*Director/Codirectores:* MARTINEZ, M.A.; ABENOJAR, J.  
*Año:* 2014

## **Publicaciones y actividades de difusión de resultados**

### **Publicaciones en revistas científicas nacionales**

- SANZ-RUIZ, P.; PAZ, E.; ABENOJAR, J. ; REAL, J.C.D.; FORRIOL, F.; VAQUERO, J.  
Influencia del medio fisiológico sobre las propiedades mecánicas del cemento óseo. ¿Son los estudios actuales extrapolables? = Influence of the physiological medium on the mechanical properties of bone cement: can current studies be extrapolated?, *Revista Española de Cirugía Ortopédica y Traumatología* , Vol. 58, Núm. 1, 2014, pp. 3-10, ESPAÑA.

- TORRALBA, J.M.; CAMPOS, M.  
Toward high performance in Powder Metallurgy, *Revista de Metalurgia*, Vol. 50, Núm. 2, 2014, ESPAÑA.

### **Publicaciones en revistas científicas internacionales**

- ABAJO, C.; HIDALGO, J.; JIMENEZ, A.; TORRALBA, J.M.  
Optimisation of eco-friendly binary binder system for powder injection moulding, *Powder Metallurgy*, Vol. 57, Núm. 3, 2014, pp. 196-203, REINO UNIDO.
- ABENOJAR, J. ; BARBOSA, A.Q.; BALLESTEROS, Y.; REAL, J.C.D.; DA SILVA, L.F.M.; MARTINEZ, M.A.  
Effect of surface treatments on natural cork: Surface energy, adhesion, and acoustic insulation, *Wood science and technology* , Vol. 48, Núm. 1, 2014, pp. 207-224, ALEMANIA.
- ABENOJAR, J. ; BAUTISTA, M. A. ; GUZMAN, S. ; VELASCO, F.J.; MARTINEZ, M.A.  
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- ABENOJAR, J. ; ENCINAS, N.; REAL, J.C.D.; MARTINEZ, M.A.  
Polymerization kinetics of boron carbide/epoxy composites, *Thermochimica acta*, Vol. 575, Núm. JANUARY, 2014, pp. 144-150, PAISES BAJOS.
- ABENOJAR, J. ; MARTINEZ, M.A.; VELASCO, F.J.; RODRIGUEZ, M.A.  
Atmospheric plasma torch treatment of polyethylene/boron composites: Effect on thermal stability, *Surface and Coatings Technology*, Vol. 239, 2014, pp. 70-77, ESTADOS UNIDOS DE AMERICA.
- ALVAREDO, P.; ABAJO, C.; TSIPAS, S.A.; GORDO, E.  
Influence of heat treatment on the high temperature oxidation mechanisms of an Fe-TiCN cermet, *Journal of alloys and compounds*, Vol. 591, 2014, pp. 72-79, SUIZA.
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## **Propiedad Industrial/intelectual**

- *Inventores*: FRYKHOLM, R.; TORRALBA, J.M.; CAMPOS, M. ; BERNARDO, E.  
Copper Based alloy powder and use therefor  
*Tipo*: PATENTE  
*Titular*: UNIVERSIDAD CARLOS III DE MADRID  
*Número Solicitud*: **EP 14161413.1**  
*Fecha Solicitud*: 25/03/2014

## **Actividades de formación y movilidad de personal investigador**

### **Estancias en otros centros**

- BEATRIZ VELASCO NUÑEZ  
*Título*: Estancia en "Texas A&M University"  
*Centro Externo*: Texas A&M University  
*País*: ESTADOS UNIDOS DE AMERICA  
*Duración*: 10/10/2014 a 19/12/2014.
- CAROLINA ABAJO CLEMENTE  
*Título*: Estancia "Imperial College of London - Centre for Advanced Structural Ceramics"  
*Centro Externo*: Imperial College of London  
*País*: REINO UNIDO  
*Duración*: 08/10/2014 a 17/12/2014.

- **LIDIA MUÑOZ FERNANDEZ**  
*Título:* Estancia en "Institute of Technical Sciences Serbian Academy of Sciences and Arts" (ITS SASA)  
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*País:* REPUBLICA DE SERBIA  
*Duración:* 18/09/2014 a 18/12/2014.
  
- **LUIS FRANCISCO LOPEZ BONILLA**  
*Título:* Estancia en University of Iceland. Proyecto europeo NILS: Transporte de electrones en dispositivos de detección infrarroja basados en pozos cuánticos.  
*Centro Externo:* University of Iceland  
*País:* ISLANDIA  
*Duración:* 01/07/2014 a 31/07/2014.
  
- **MIGUEL RUIZ GARCIA**  
*Título:* Asistencia a "The 24th Annual PCMI Summer Session, Mathematics and Materials"  
*Centro Externo:* Princeton Institute for Advanced Study (IAS)/Park City Mathematics Institute (PCMI)  
*País:* ESTADOS UNIDOS DE AMERICA  
*Duración:* 29/06/2014 a 19/07/2014.