

KNOW-HOW IN METAL MATRIX COMPOSITES

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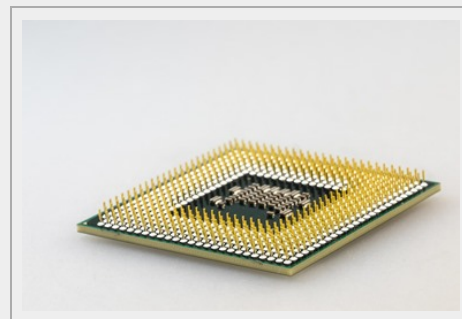
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RESUM

The research group of Condensed Matter Physics possesses the know-how necessary to develop composites metal-ceramic. It obtains these materials by means of liquid aluminium mixed with other particles, or by means of infiltration to low pressure of particles.

These materials possess interesting properties for diverse industries (automotion, electronic, microelectrónica, etc.).

The research group looks for partners to establish technical projects to develop new compound materials ceramic/metal with diverse applications.

**DESCRIPCIÓ TÈCNICA**

The Metallurgy Group of the Applied Physics Department at the University of Alicante has the know-how to develop metal matrix composites. Two types of Metal/ceramic interfaces are mainly investigated:

- 1) Materials produced by liquid metal (mainly aluminium) and ceramic particles direct mixture (less than 25% of particles).
- 2) Materials produced by low pressure infiltration process of particles or fibres (up to 70% of reinforcement).

AVANTATGES I ASPECTES INNOVADORS

New materials with interesting properties for several industries are being developed.

ESTAT ACTUAL

Several laboratory tests have been carried out. Nowadays we are able both to manufacture and to evaluate technical properties on the mentioned materials. Two crucible machinery (3 and 60 Kg.) are available.

APLICACIONS DE L'OFERTA

The application of these metal matrix composites could be of interest to automotive and microelectronic industries.

COL-LABORACIÓ BUSCADA

Partners to establish technical projects to develop new metal matrix materials are sought.

SECTORS D'APLICACIÓ (3)

Materials and Nanotechnology
Chemical Technology
Transport and Automotive