

## World Congress and Expo on

# Recycling

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### **From residues and contaminated industrial effluents to renewable materials and recycled water**

Recycling is an opportunity to improve the management of natural resources and it has to be said that a large number of companies are at present considering the recycling of materials not only as an opportunity to reduce the environmental impact generated by these materials but also as a way to maximize their profits. The research groups presenting this work have several options in practice to recycle agri residues, very abundant in Spain due to our Mediterranean weather, i.e. catalytic processes using residues from sunflower production derived catalysts, supports for enzymatic processes using rice residues, biomaterials for tissue engineering from beer production, water decontamination with modified agri residues, etc. Using residues with proper design can decrease the use of raw materials, quite often not renewable and the energy being spent, when the need for transportation is avoided. Furthermore, an interesting meeting point between recycling and sustainability is the recovery of water from industrial effluents, especially in countries like Spain, where severe droughts are faced every year.

### **Biography**

M A Martin-Luengo, graduated in chemistry in 1980, and has presented her Master work and PhD on materials characterization and use, in 1981 and 1983. In the Spanish National Research Council (CSIC) she has worked as a Postdoctoral researcher, and she worked in the English Scientific Engineering Research Council, preparing fuels from synthesis gas and materials for advanced applications in Belgium. Since 1992, she is CSIC's scientific staff, working in the use of chemistry to improve sustainability, and she has collaborated in more than 25 research projects, 100 congresses, ca. 100 publications and patents. She is an RSC's CChem and member of ACS, and other scientific organizations.

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