PRODUCTION OF BRIQUETTES FOR ENERGY RECOVERY OF FURNITURE WASTE WITH POLYURETHANE FOAMS

PATENTED TECHNOLOGY

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ABSTRACT

The Research Group "Waste, energy, environment and nanotechnology" (WEEN) from the University of Alicante has developed a new compact material and a **production process of briquettes of furniture waste**. This process makes it possible to carry out the management and the energy recovery of this waste, avoiding the environmental problems associated with its landfilling and also making it easier to transport, handle and store.

The **briquettes** obtained, show physicochemical characteristics similar to the conventional and they have a **high energy density** being able to be used as **fuel for thermal power plants or industrial boilers**.

Companies in the waste treatment sector and the furniture industry that are interested in commercial exploitation of this technology through licensing agreements and / or technical cooperation are sought.

ADVANTAGES AND INNOVATIVE ASPECTS

- The new briquetting process from waste furniture **solves the current problem of management of this waste**.
- The process allows **energy recovery and treatment** of this waste in a **simple and feasible way** to **avoid the environmental problems** associated with disposal in landfills.
- The **densification of the material** in the shape of briquettes makes the **transportation, handling and storage** of this waste **easier and cheaper**.
- The **briquettes** produced have **high energy density** and have **physicochemical characteristics** (resistance to fragmentation and abrasion, durability, density, etc.) **similar to conventional ones**.
- The briquettes can be used as **fuel in thermal power plants or industrial boilers, solving the drawbacks** of low density, uniformity of size and shape, as well as the feeding problems in these combustion plants associated with these materials.
- This process can be **applied to briquettes of any size and shape**.

MARKET APPLICATIONS

Municipal solid waste treatment plants or furniture industries interested in the energy recovery of this waste.

COLLABORATION SOUGHT

Companies interested in acquiring this technology for use and / or commercial exploitation, through the following:

- License agreements to transfer the patent rights to use, manufacture or marketing of the technology to third parties.
- Agreement R & D project (technical cooperation) for the use or application of technology in other waste or in other sectors.
- Subcontracting agreement for technical assistance, training, etc.