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ABSTRACT

PROCESS AND SYSTEM FOR CONVERTING PLASTICS WASTE INTO OIL

Disclosed is an economical process for treating a large amount of plastics waste in which thermoplastics, crosslinked plastics, thermosetting plastics or a mixture thereof can be continuously and rapidly degraded and converted into oil without sorting various types of plastics waste. According to this process, powdered plastics obtained by grinding thermoplastics, crosslinked plastics, thermosetting plastics or a mixture thereof is mixed with water to form a slurry, and a dispersing agent such as a water-absorbing resin, a water-soluble polymer or a surface-active agent is added thereto. The resulting mixed slurry is fed to a tubular continuous reactor where the powdered plastics is degraded under reaction conditions causing the water to be in or near its supercritical region. Finally, oil is recovered from the reaction product.

Fig. 1

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