

Title (en)

PROCESSING OF WASTE USING A PLASMA PROCESSING UNIT

Title (de)

VERARBEITUNG VON ABFALL UNTER VERWENDUNG EINER PLASMAVERARBEITUNGSEINHEIT

Title (fr)

TRAITEMENT DE DÉCHETS

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Application

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Abstract (en)

[origin: WO2009156761A2] Processing of Waste The present invention includes a waste processing apparatus (10) comprising: a reactor vessel (11) in which waste is received and broken-down by pyrolysis to produce pyrolysis gases; and at least one plasma processing unit that treats the pyrolysis gases. The plasma processing unit comprises a plasma generator (13) that creates hot ionised plasma gases; a plasma chamber (12) in which the plasma gases and the pyrolysis gases mix; and electrodes (36, 37) within the plasma chamber that apply an electromagnetic field to the mixed plasma and pyrolysis gases to achieve decomposition of harmful waste components. The electrodes may include first and second electrodes across which a fixed or variable electrical potential is applied. There is also a method of processing waste comprising: A) thermally decomposing waste by pyrolysis to generate pyrolysis gases; B), heating the pyrolysis gases within a plasma chamber in the presence of hot ionised plasma, whilst applying an electric field to the pyrolysis gases, to decompose said gases; C) passing the decomposed gases through a catalytic process; and D) rapidly cooling the formed gases.

IPC 8 full level

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