

[Document Name] ABSTRACT

[Abstract]

[Problem to be Solved]

The present invention provides a system for recycling general waste capable of
5 obtaining a recycled material product by rendering harmless and stabilizing harm metals
in general waste containing waste plastic with a synergistic effect of catalysis and far
infrared electromagnetic waves after a pretreatment step.

[Solution]

The system for recycling general waste according to the present invention
10 includes a to-be-treated material pit 2 that stores a to-be-treated material, a catalysis
crusher 3 that crushes, on the basis of catalyst addition, part of the material, a primary
dryer 6 that performs primary-drying of the material supplied from the catalysis crusher
to reduce the volume, a powder pulverizer 9 that pulverizes part of the primary-dried
material, and allows incineration ash rendered harmless to be input thereinto, a raw
15 material tank 11 that stores the powder-pulverized material, a secondary dryer 13 that
performs secondary-drying of the material from the raw material tank to further reduce
the volume, and a far infrared radiation catalytic reduction device 21 that is configured
capable of generating far infrared electromagnetic waves that are generated from
heated ceramics, and that is supplied with the secondary-dried material, and is further
20 supplied with the incineration ash rendered harmless through the powder pulverizer,
the raw material tank, and the secondary dryer, and that renders harmless and stabilizes
harm metals in the material with a synergistic effect of catalysis based on a substance
contained in the incineration ash and the far infrared electromagnetic waves to obtain a
recycled material.

25 Fig. 1