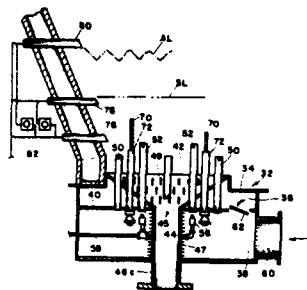


4345983

METHOD FOR DISPOSAL OF CHEMICAL WASTE

Jeffrey K. Wan; Assigned to Queen's University at Kingston

A process for the safe and efficient disposal of toxic chlorinated hydrocarbon waste materials in which the chlorinated hydrocarbon is brought into close surface contact with a finely divided para-or ferromagnetic material, such as a fluidized bed of iron powder, in the presence of high intensity microwave radiation, so as to effect an electron transfer reaction which yields chloride anions, which subsequently react with the iron to form ferrous chloride, and an organic radical which is readily oxidized, in the presence of gaseous oxygen, to carbon dioxide and water.



A fluidized bed combustor having in its distributor plate assembly at the bottom of the combustion chamber, air outlets in the distributor plate surface, air flow riser tubes projecting above said surface, light liquid fuel nozzles located adjacent certain of the riser tubes for injection of liquid fuel into the air forcefully flowing up these riser tubes, and the share of air flowing through the riser tubes relative to the share of air flowing through the outlets being controlled by regulating means.

4344796

CEMENTITIOUS COMPOSITIONS AND AGGREGATE DERIVATIVES FROM SAID COMPOSITIONS

John L. Minnick; Assigned to John L. Minnick

Cementitious compositions and aggregate derivatives of said compositions wherein fluidized bed combustion residue and possolanix material, such as pulverized coal combustion system fly ash, are incorporated in a cementitious mix. The mix is cast into desired shape and cured. If desired, the shape may then be crushed so as to result in a fluidized bed combustion residue-fly ash aggregate material or the shape may be used by itself.

4345914

METHOD OF HEATING FINE-GRAINED SOLIDS

Roland Rammler; Assigned to Metallgesellschaft Aktiengesellschaft

A Process for heating fine-grained solids, especially carbonaceous solids such as coke or oil shale, by a process wherein solids are heated to 500 degrees to 920 degrees C. in direct contact with hot gases in a plurality of heating stages, the last of which is a fluidized bed heating process

4345894

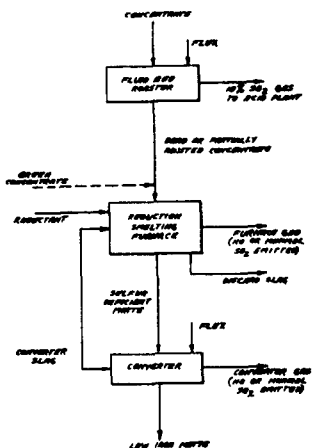
LIGHT FUEL START-UP FLUIDIZED BED COMBUSTOR

Willard P. Smith; Bruce Hutchinson; Assigned to Stone-Platt Fluidfire Limited

4344792

REDUCTION SMELTING PROCESS

Charles E. O'Neill; Assigned to Inco Ltd

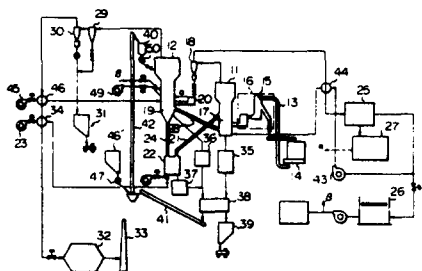


A process for recovering metal values from sulfide ores or concentrates by a fluid bed roast-reduction smelting-converting process which delivers to the reduction smelting furnace either a blend of dead roasted concentrate and green concentrate or a partially roasted concentrate, either feed mixed with a carbonaceous reductant and silica flux, and either feed containing only sufficient sulfur to produce a matte, in which the iron is present as metallic iron, and which has a sulfur deficiency of about 0% to about 25% with respect to base metals, and which is later converted to a low iron matte by blowing and slagging the iron with silica flux.

4344373

METHOD FOR PYROLYZING

Yoshiaki Ishii; Tsutomu Kume; Naoyoshi Ando; Shosaku Fujinami; assigned to Agency of Industrial Science and Technology

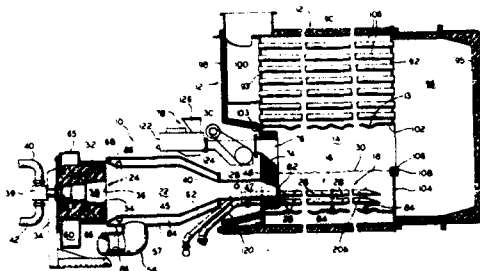


A method for safely and continuously pyrolyzing organic material such as contained in municipal waste is presented for use in a two-bed pyrolysis system primarily comprising a pyrolysis reactor and combustion reactor in which several different physical factors influencing the state of fluidization such as amount of sand in the system, circulation rate of the sand, pressure difference between the free boards of the two reactors and superficial velocity in the pyrolysis reactor, are comprehensively controlled or regulated so as to maintain the operating point of the system at substantially the center of the stable operating range. The feed rate of material charged into the system may also be regulated as required.

4344372

FLUIDIZED BED COMBUSTION DEVICE

Robert A. Chronowski; Assigned to Aqua-Chem Inc.



A fluidized bed combustion device adapted for use with a boiler has an air distributor consisting of a row of generally horizontally oriented, apertured sparge pipes or tubes disposed in a bed of inert particulate material. The center pipes in the row are connected to a start-up burner for receiving heated combustion products and excess air and the outer pipes in the row are connected to selectively receive air through a separate delivery path. During start-up and low load conditions, only the center pipes are pressurized and so that only the center portion of the bed is