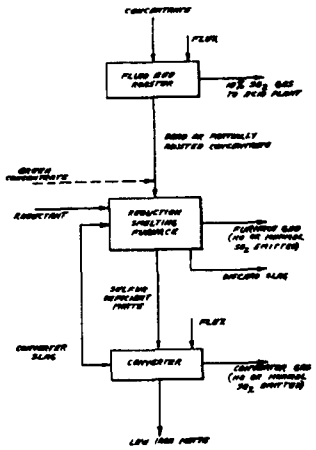
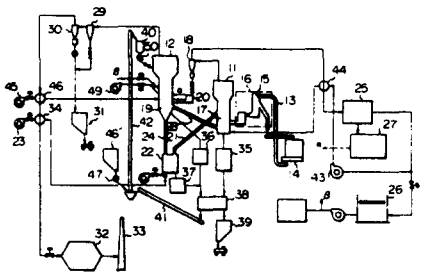


A process for recovering metal values from sulfide ores or concentrates by a fluid bed roast-reduction smelting-converting process which delivers to the reduction smelting furnace either a blend of dead roasted concentrate and green concentrate or a plartially roasted concentrate, either feed mixed with 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; Naoyhoshi Ando; Shosaku Fujinami; assigned to Agency of Industrial Science and Technology

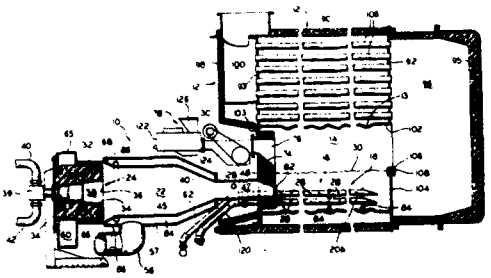


A method for safely and continuously pyrolyzing organic material such as contained in municipal waste is presented for use in a two-bed pyrolysis system primarily comprising a pyrolysis reactor and combustion reactor in which several different physical factors influencing the state of fluidization such 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.



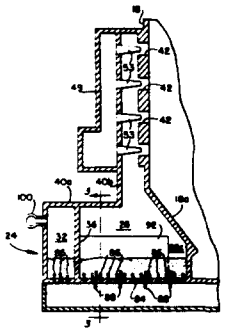
A fluidized bed combustion device adapted for use with a boiler has an air distributor consisting of a row of generally horizontally oriented, apertured sparge pipes or tubes disposed in a bed of inert particulate material. The center pipes in the row are connected to a start-up burner for receiving 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

fluidized to minimize the heat input requirements. Once the central portion of the bed has been heated to the required temperature, primary fuel is delivered to sustain combustion without the start-up burner. At the completion of the start-upl process and during high fire conditions all of the tubes are pressurized to fluidize the entire bed.

4344371

VAPOR GENERATING SYSTEM HAVING INTEGRALLY FORMED GASIFIERS EXTENDING TO EITHER SIDE OF THE HOPPER PORTION OF THE GENERATOR

Robert J. Zoschak; Assigned to Foster Wheeler Energy Corporation



A vapor generating system in which a furnace section is provided that is formed by four upright walls, the lower portion of two opposed walls being slanted inwardly to form a hopper portion. A plurality of openings are formed in each of the opposed walls immediately above its slanted portion. Two gasifiers extend adjacent said opposed wall portions, respectively, and surround the respective slanted wall portions and openings, so that the respective interiors of the gasifiers communicate with the openings. A bed of adsorbent material is supported in each gasifier for adsorbing the sulfur generated as a result of the gasifiecation of fuel introduced into the gasifier ands air is passed through the bed of adsorbent material to fluidize said material so that, upon combustion of said fuel, a substantially sulfur-free product gas is produced which plasses from the gasifier, through the openings and into the furnace section.

4343926

FLUIDIZED BED TERPOLYMERIZATION OF ETHYLENE, PROPYLENE AND NON-CONJUGATED DIENE

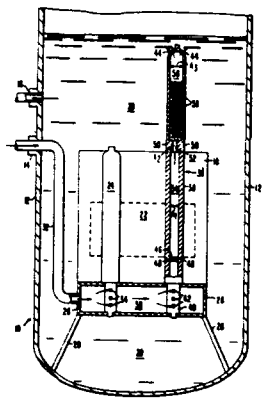
Francois Caumartin; Jean L. Vidal; Pierre Mangin assigned to Naohtachimie Societe Anonyme

The invention concerns a process for the production of elastomeric terpolymers of ethylene, propylene and dienes by the direct polymerization of the monomeric olefines in the gaseous state, in contact with a catalytic system comprising one or more solid compounds of titanium. The resulting terpolymers which are produced in the form of powders can be used without intermediate transformation for the production of molded or extruded articles.

4343764

NUCLEAR REACTOR CONTROL COLUMN

Dennis M. Bachovchin; assigned to The United States of America as represented by the United States Department of Energy



The nuclear reactor control column comprises a column diposed within the nuclear reactor core having a variable cross-section hollow channel and containing balls whose vertical location is determined