

REJUVENATIVE CATALYTIC OXIDATION OF WASTE WATER,
PARTICULARLY FOR REMOVAL OF CYANIDE AND SULFUR COMPOUNDS

ABSTRACT

5 A process for the rejuvenative catalytic oxidation of
offensive substances, such as cyanides, sulfides, sulfites,
thiosulfates, mercaptans, disulfides, ammonia and mixtures
thereof, contained in waste water is provided. The process
comprises adding to the waste water a low concentration of
a metal compound and then passing the treated waste water
10 along with a source of oxygen over an adsorbent material to
catalytically oxidize the offensive substances contained in
the waste water. The process reduces the catalytic impact
of the loss of metal from the adsorbent material due to
leaching and allows the catalyst to be rejuvenated and
15 allows recovery from process upsets in the treating system
without unit shutdown and catalyst replacement. An example
of the catalytic support is activated carbon and an example
of the metal is copper.

FIGURE 1 IS SUGGESTED FOR PUBLICATION.