

METHOD FOR RECOVERING AND RECYCLING CATALYST CONSTITUENTS

ABSTRACT

Catalytic materials including divalent palladium
5 compounds, divalent cobalt compounds and bromide sources such as
tetraalkylammonium and hexaalkylguanidinium bromides are removed
from organic carbonylation reaction mixtures comprising said materials
in combination with diaryl carbonate and hydroxyaromatic compound.
The removal steps include extraction with an aqueous complexing
10 solution for palladium, extraction with an aqueous non-basic and
preferably ionic extractant for cobalt, and extraction with water to
remove bromide source. These steps may be combined into an
integrated process. Further steps of recycle of the palladium by
reduction to elemental palladium and conversion to a catalytically
15 active species, and conversion of cobalt to a catalytically active
species, may be included in the integrated process.

FIGURE 1