

Title (en)
PROCESS FOR PRODUCTION OF NICKEL AND COBALT USING METAL HYDROXIDE, METAL OXIDE AND/OR METAL CARBONATE

Title (de)
VERFAHREN ZUR HERSTELLUNG VON NICKEL UND COBALT UNTER VERWENDUNG VON METALLHYDROXID, METALLOXID UND/ODER METALLCARBONAT

Title (fr)
PROCÉDÉ DE PRODUCTION DE NICKEL ET DE COBALT UTILISANT UN HYDROXYDE MÉTALLIQUE, UN OXYDE MÉTALLIQUE ET/OU UN CARBONATE MÉTALLIQUE

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Application
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Priority

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Abstract (en)
[origin: WO2009127053A1] A method for producing metal oxide from a metal salt selected from nickel hydroxide, cobalt hydroxide, mixed nickel-cobalt hydroxide, nickel carbonate, cobalt carbonate, mixed nickel-cobalt carbonate and combinations thereof includes providing a mixture of the metal salt, mixing the metal salt with a binder selected from the group consisting of inorganic binder, organic binder and combinations thereof, forming the mixture into agglomerates, and calcining the agglomerates to produce metal oxide. A method for making metallic nickel or cobalt includes providing a metal salt selected from the group consisting of nickel hydroxide, cobalt hydroxide, mixed nickel-cobalt hydroxide, nickel carbonate, cobalt carbonate and combinations thereof, mixing the metal salt with a binder selected from the group consisting of inorganic binder, organic binder and combinations thereof to form a mixture, optionally adding water, forming the mixture into agglomerates, drying the agglomerates, adding an effective reducing amount of coke and/or coal and directly reducing the dried agglomerates with an effective amount of heat to produce metallic nickel and/or cobalt. Coke particles may be added to the mixture prior to agglomeration. An agglomerate includes a metal salt selected from the group consisting of nickel hydroxide, cobalt hydroxide, mixed nickel-cobalt hydroxide, nickel carbonate, cobalt carbonate, mixed nickel-cobalt carbonate and combinations thereof; and a binder selected from the group consisting of inorganic binder, organic binder and combinations thereof.

IPC 8 full level
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