

Abstract

Electric accumulator

In contrast to conventional Ni/metal hydride accumulators, in which cobalt compounds play an essential part in building up a conductive matrix within their positive nickel hydroxide electrodes, which, however, owing to reductive destruction of said matrix by a more severe high temperature short circuit test after 6 conditioning cycles suffer a massive irreversible loss in capacity (curve 1), the same accumulator cells survive the test with an only temporary slight sharp decline in capacity, if their positive electrodes are formed from a mass mixture of Ni(OH)_2 and an oxidation-resistant graphite (curve 2). The stable graphite is notable for a high degree of crystallinity (crystallite size $> 200 \text{ nm}$) and has a low ash content $< 0.5\%$.

FIGURE 1