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(54) **METHOD FOR PRODUCING ANION-EXCHANGING LAYERED DOUBLE HYDROXIDE AND METHOD FOR SUBSTITUTING CARBONATE ION OF LAYERED DOUBLE HYDROXIDE**

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(57) **ABSTRACT**

A method for producing an anion-exchanging LDH using a carbonate ion-type layered double hydroxide represented by general formula  $Q_aT(OH)_z(CO_3^{2-})_{0.5-b/2}(X^-)_b \cdot nH_2O$  (where  $1.8 \leq a \leq 4.2$ ,  $z = 2(a+1)$ ,  $0 \leq b < 0.5$ ,  $0 \leq n \leq 5$ , Q represents divalent metal, T represents trivalent metal, and  $X^-$  is an element or atom group that turns to monovalent anion) as a starting material, with value b increased at least to 0.5 and a maximum of 1, wherein the carbonate ion-type layered hydroxide is made to contact an alcoholic solution containing an acidic compound ( $MX_m$ ) (where  $m=1, 2$ , or  $3$ ; when  $m=1$ , M is H or  $NR'R''$ , with R, R', and R'' being H or organic group; and when  $m=2$  or  $3$ , M is a metal salt, namely a divalent or trivalent metal).

