

ABSTRACT

ZEOLITES AND THEIR USE IN THE SEPARATION OF GASEOUS MIXTURES

Type X zeolites whose charge-compensating cations are composed on an equivalents basis of 95 to 50% lithium ions, 4 to 50% of one or more of aluminum, cerium, lanthanum and mixed lanthanides and 0 to 15% of other ions. The zeolites preferentially adsorb nitrogen from gas mixtures. The zeolites exhibit superior thermal stability and nitrogen adsorption properties. They may be prepared by ion exchange.