

Abstract

The invention relates to a process for preparing lactams by
5 cyclizing hydrolysis of amino nitriles with water in the gas
phase on catalysts which comprise oxides or mixed oxides of the
metals of groups 3, 4, 5, 13 and/or 14 of the Periodic Table,
where appropriate in addition a metal oxide of groups 6, 7, 8, 9
and/or 10, and further comprise a phosphate, carbonate, silicate,
10 arsenite, arsenate, antimonite, antimonate and/or nitrate of said
metals and/or, if metal oxides of groups 6, 7, 8, 9 or 10 are
present, a sulfate of the abovementioned metals.

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