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As printed (54) Title: METHOD FOR PRODUCING LACTAMS (54) Bezeichnung: VERFAHREN ZUR HERSTELLUNG VON LACTAMEN (57) Abstract The invention relates to a method for producing lactams by means of cyclizing hydrolysis of aminonitriles with water in the gas-phase on catalysts which contain oxides or mixed oxides of metals of groups 3, 4, 5, 13 and/or 14 of the periodic table, and optionally one additional metal oxide of groups 6, 7, 8, 9 and/or 10. In addition, the catalysts comprise a phosphate, carbonate, silicate, arsenite, arsenate, antimonite, antimonate and/or nitrate of the aforementioned metals and/or a sulfate of the aforementioned metals when metal oxides of groups 6, 7, 8, 9 or 10 are present. (57) Zusammenfassung Die Erfindung betrifft ein Verfahren zur Herstellung von Lactamen durch cyclisierende Hydrolyse von Aminonitrilen mit Wasser in der Gasphase an Katalysatoren, die Oxide oder Mischoxide der Metalle der Gruppen 3, 4, 5, 13 und/oder 14 des Periodensystems, gegebenenfalls zusätzlich ein Metalloxid der Gruppen 6, 7, 8, 9 und/oder 10 enthalten und die ferner ein Phosphat, Carbonat, Silikat, Arsenit, Arsenat, Antimonit, Antimonat und/oder Nitrat der erwähnten Metalle und/oder bei Anwesenheit von Metalloxiden der Gruppen 6, 7, 8, 9 bzw. 10 ein Sulfat der vorgenannten Metalle umfassen.		