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(71) Demandeur/Applicant:
LANXESS DEUTSCHLAND GMBH, DE
(72) Inventeurs/Inventors:
ONG, CHRISTOPHER, US;
MULLER, JULIA MARIA, DE
(74) Agent: NORTON ROSE CANADA
S.E.N.C.R.L., S.R.L./LLP

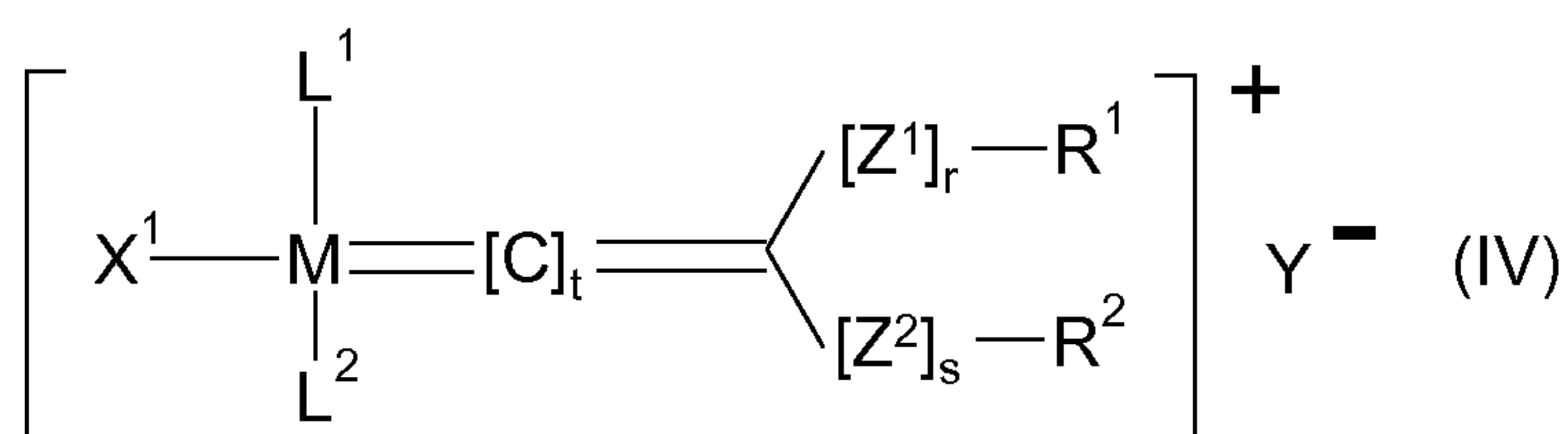
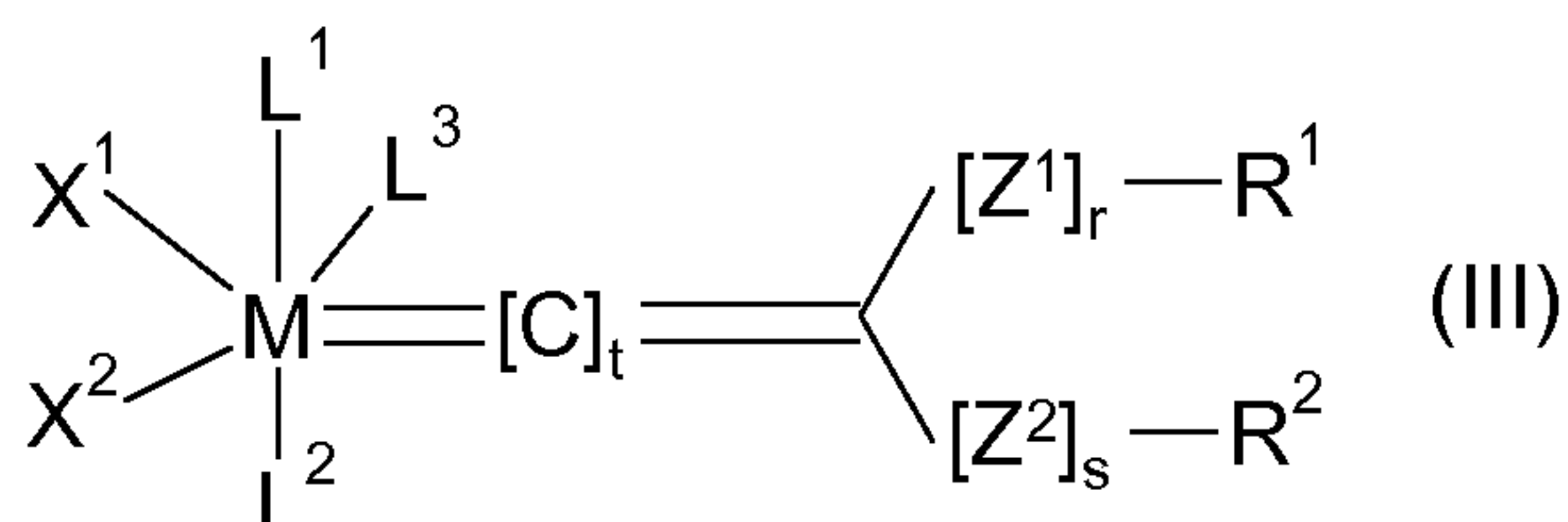
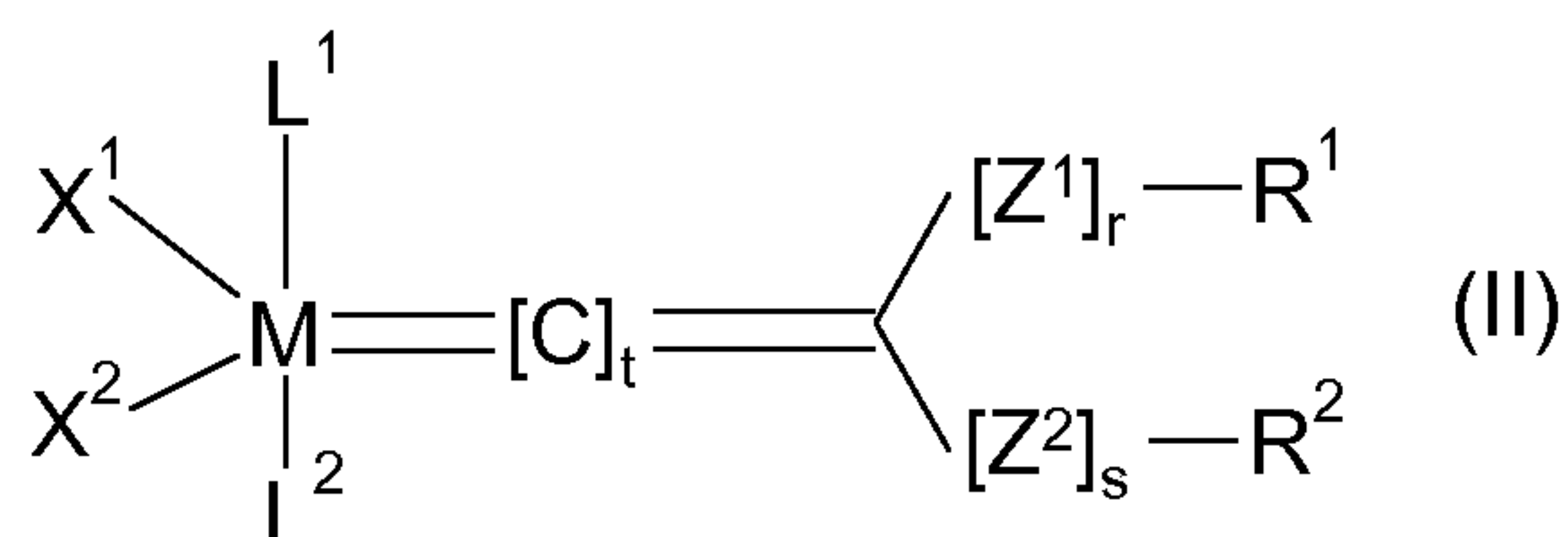
(54) Titre : PROCEDE DE PREPARATION D'UN CAOUTCHOUC NITRILE HYDROGENE
(54) Title: PROCESS FOR THE PREPARATION OF HYDROGENATED NITRILE RUBBER

(57) **Abrégé/Abstract:**

The present invention relates to a process for the production of hydrogenated nitrile rubber polymers having lower molecular weights and narrower molecular weight distributions than those known in the art, wherein the process is carried out in the presence of hydrogen and optionally at least one co-olefin. The present invention further relates to the use of specific metal compounds in a process for the production of a hydrogenated nitrile rubber by simultaneous hydrogenation and metathesis of a nitrile rubber.



or one of the following formulae (II), (III) or (IV)



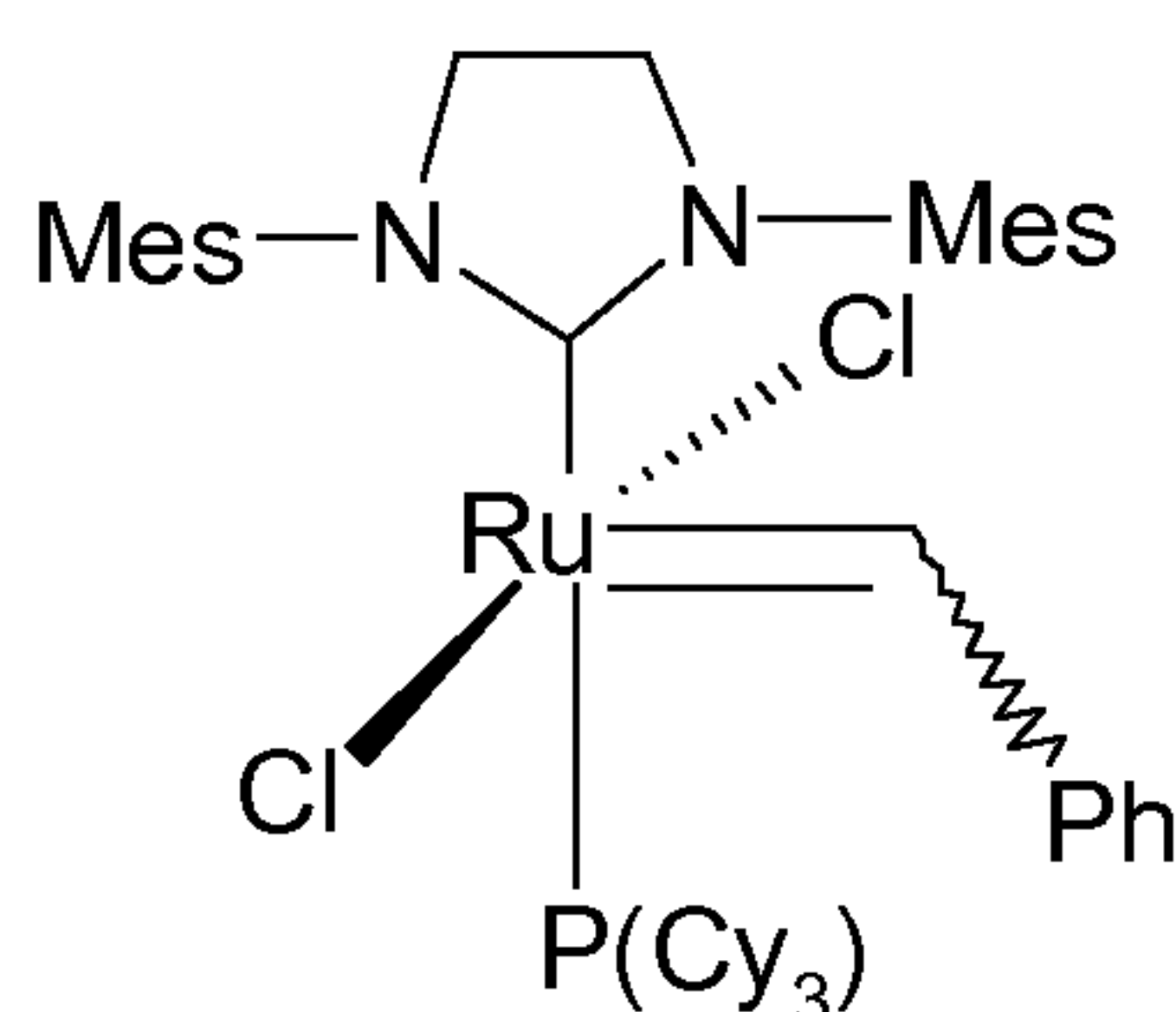
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wherein

X^1 , X^2 , L^1 , L^2 , L^3 , R^1 , and R^2 are as defined previously, r and s are independently zero or 1, t is an integer in the range of zero to 5, Y is any noncoordinating anion, Z^1 and Z^2 are linkages containing 1 to about 6 spacer atoms, any two or more of X^1 , X^2 , L^1 , L^2 , L^3 , Z^1 , Z^2 , R^1 , and R^2 may be taken together to form a cyclic group; e.g., a multidentate ligand, and any one or more of X^1 , X^2 , L^1 , L^2 , L^3 , Z^1 , Z^2 , R^1 , and R^2 may be attached to a support.

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According to the example in **WO-A2-03/087167** a cross-metathesis of acrylonitrile with different cross partners is carried out in the presence of a catalyst of the formula (1)



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However, the catalysts mentioned above are not necessarily suitable for carrying out the degradation of nitrile rubber. Further, the catalysts mentioned above have never been used as hydrogenation catalysts in the prior art.

