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(74) Agent: **DEITCH, Gerald, E.**; E.I. DU PONT DE
NEMOURS AND COMPANY, Legal Patent Records
Center, 4417 Lancaster Pike, Wilmington, DE 19805 (US).

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(71) Applicant: **E.I. DU PONT DE NEMOURS AND COM-
PANY** [US/US]; 1007 Market Street, Wilmington, DE
19898 (US).

(72) Inventors: **GAGNE, Michel, R.**; 106 Woods Walk Court,
Carrboro, NC 27510 (US). **MOLOY, Kenneth, G.**; 549
Cobot Drive, Hockessin, DE 19707 (US). **RADU, Nora,
S.**; 109 Stoney Ridge Road, Landenberg, PA 19350 (US).
SANTORA, Brian, P.; 12155 846th Avenue, River Falls,
WI 54022 (US). **TAM, Wilson**; 3781 Brookcroft Lane,
Boothwyn, PA 19061 (US).

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(54) Title: POLYMERIC PHOSPHORUS-CONTAINING COMPOSITIONS AND THEIR USE IN HYDROCYANATION, UN-
SATURATED NITRILE ISOMERIZATION AND HYDROFORMYLATION REACTIONS

(57) Abstract: A polymeric, phosphorus-containing composition made by heating, in the presence of an initiator, preferably a free radical initiator, and optionally in the presence of one or more comonomers, at least one ethylenically substituted phosphonylated 2,2'-dihydroxyl-1,1'-binaphthalene or -biphenylene or at least one ethylenically substituted 2,2'-dihydroxyl-1,1'-biphenylene or -binaphthalene, with subsequent phosphonylation. Alternatively, an aryl phosphorochloridite containing at least one (meth)acrylate group is polymerized and subsequently coupled with a 2,2'-dihydroxyl-1,1'-diphenylene or -binaphthalene. These polymers and the corresponding phosphonylated 2,2'-dihydroxyl-1,1'-binaphthalene or biphenylene monomers may be combined with a group VIII metal to form catalysts for hydrocyanation, hydroformylation or unsaturated nitrile isomerization.



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