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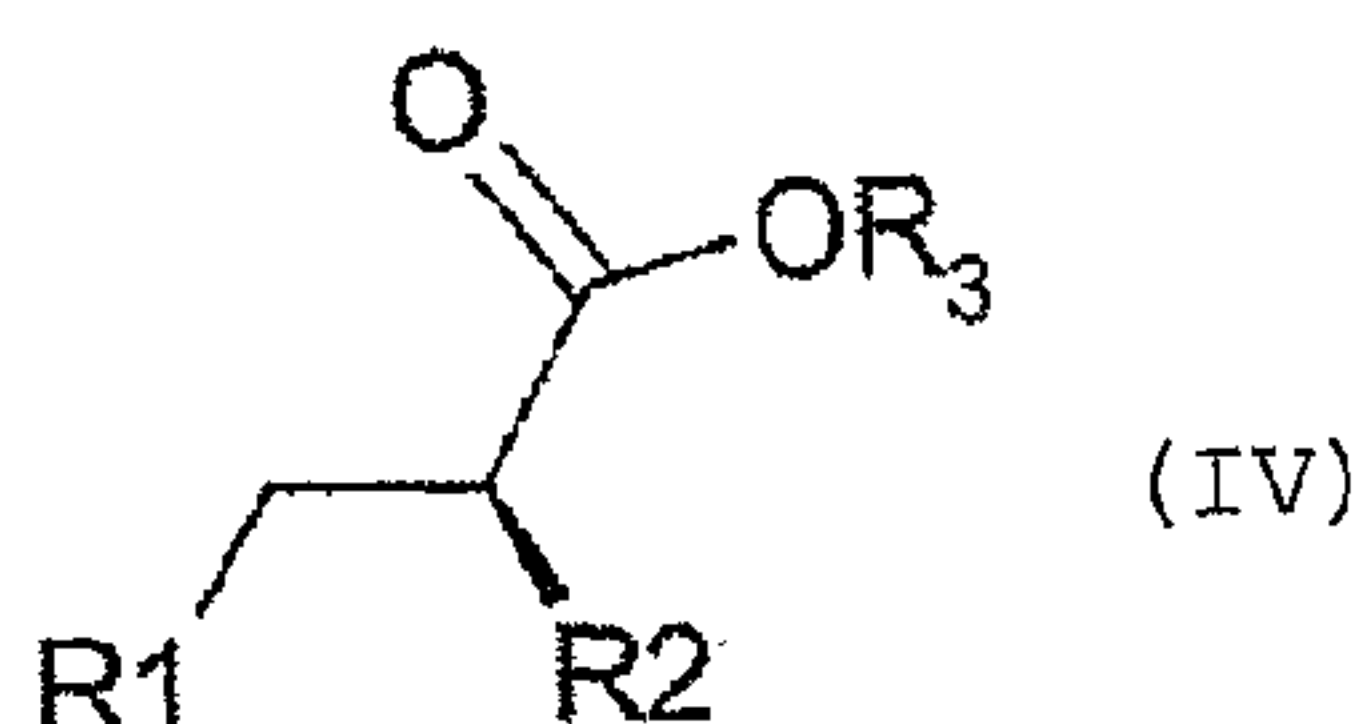
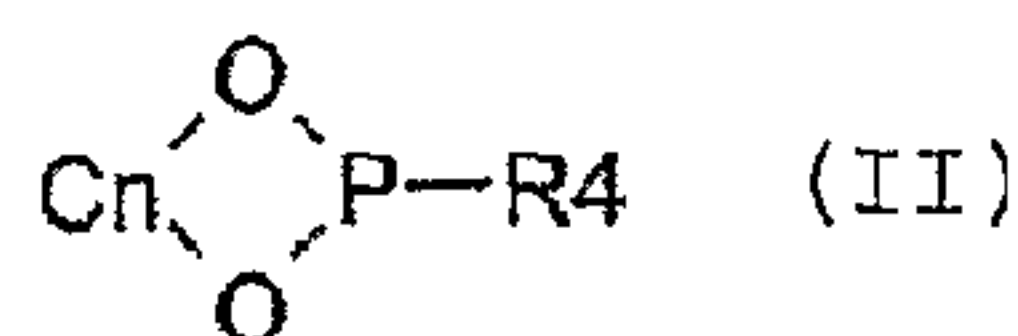
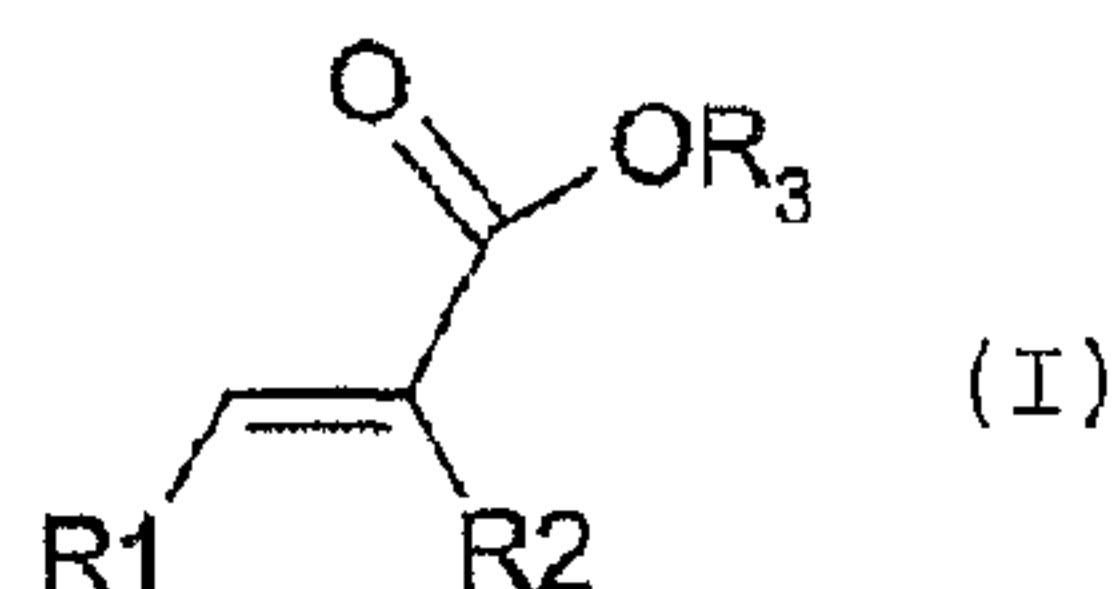
(72) Inventeurs/Inventors:
BOOGERS, JEROEN, NL;
FELFER, ULFRIED, AT;
KOTTHAUS, MARTINA, AT;
DE VRIES, ANDREAS H. M., NL;
DE VRIES, JOHANNES G., NL;
LEFORT, LAURENT, NL;
STEINBAUER, GERHARD, AT

(73) Propriétaire/Owner:
DSM FINE CHEMICALS AUSTRIA NFG GMBH & CO
KG, AT

(74) Agent: FETHERSTONHAUGH & CO.

(54) Titre : PROCEDE POUR UNE HYDROGENATION ASYMETRIQUE, CATALYSEE PAR UN METAL DE TRANSITION, DE DERIVES D'ACIDE ACRYLIQUE ET NOUVEAU SYSTEME CATALYTIQUE POUR CATALYSE A METAL DE TRANSITION ASYMETRIQUE

(54) Title: PROCESS FOR TRANSITION METAL-CATALYZED ASYMMETRIC HYDROGENATION OF ACRYLIC ACID DERIVATIVES, AND A NOVEL CATALYST SYSTEM FOR ASYMMETRIC TRANSITION METAL CATALYSIS



(57) Abrégé/Abstract:

A process for transition metal-catalyzed, asymmetric hydrogenation of acrylic acid derivatives of the formula (I) in which R1 is H or an optionally substituted alkyl, aryl or heteroaryl radical, R2 is an optionally substituted alkyl, aryl or heteroaryl radical, and R3 is H or



(57) **Abrégé(suite)/Abstract(continued):**

a C₁-C₆-alkyl radical, which comprises hydrogenating compounds of the formula (I), optionally in a solvent, in the presence of one or more hydrogen donors, using a catalyst system which comprises a transition metal from the group of ruthenium, rhodium and iridium and a combination of a chiral phosphorus ligand of the formula (II) in which Cn, together with the two oxygen atoms and the phosphorus atom, forms an optionally substituted ring having from 2 to 6 carbon atoms and R4 is an optionally substituted alkyl, aryl, alkoxy or aryloxy radical or NR₅R₆ where R₅ and R₆ may each independently be H or an optionally substituted alkyl, aryl, aralkyl or alkaryl radical, or, together with the nitrogen atom, may form a ring, and an achiral phosphine ligand of the formula (III) in which R is an optionally substituted alkyl or aryl radical, to the corresponding compounds of the formula (IV) in which R₁, R₂ and R₃ are each as defined above, and also a novel catalyst system for asymmetric transition metal catalysis.

