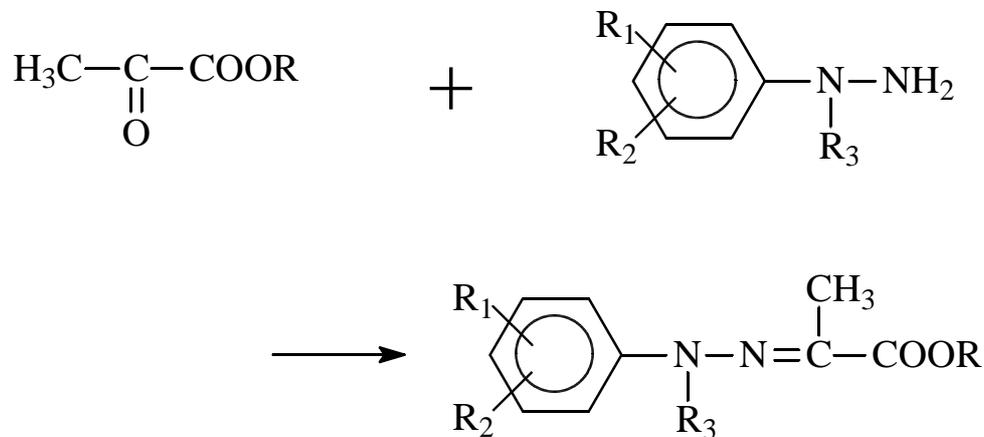


# Reaction of pyruvate

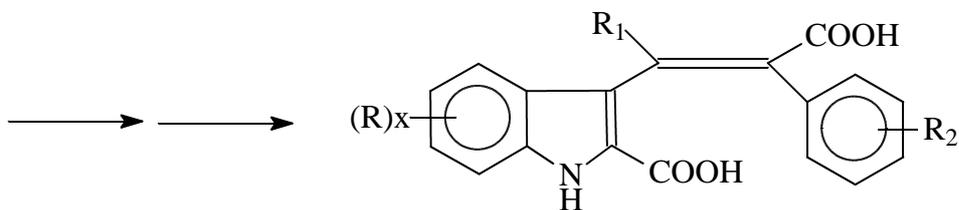
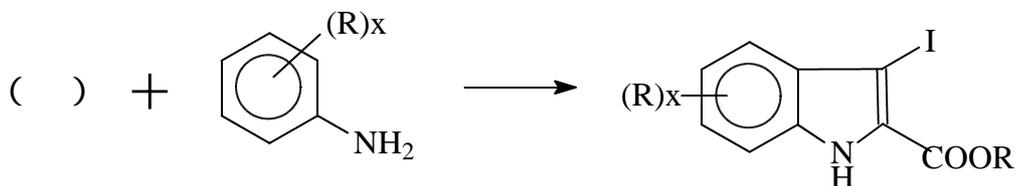
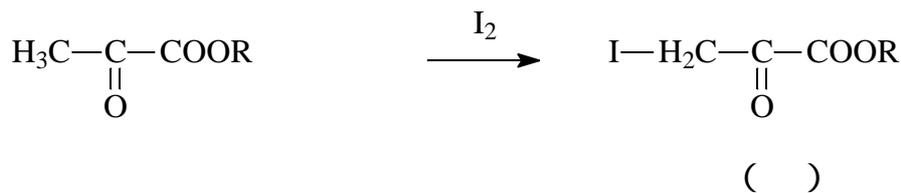
【Pyruvic acid esters】

1 JP08-176089 KOKAI



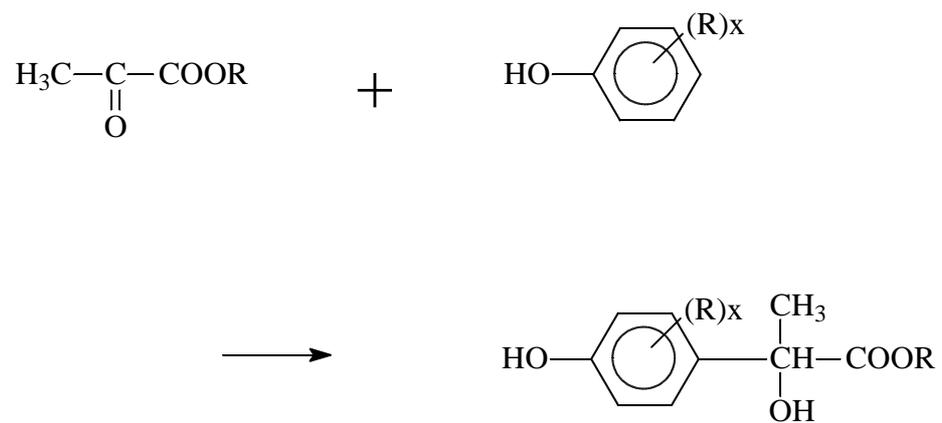
Intermediate for medicine and agricultural chemicals

2 US5519049

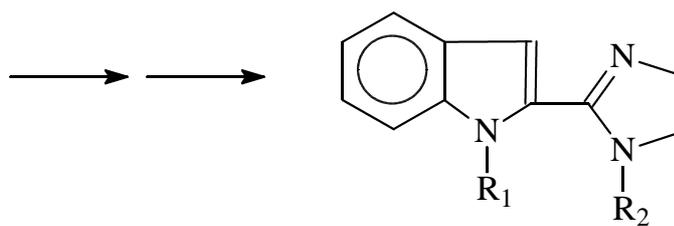
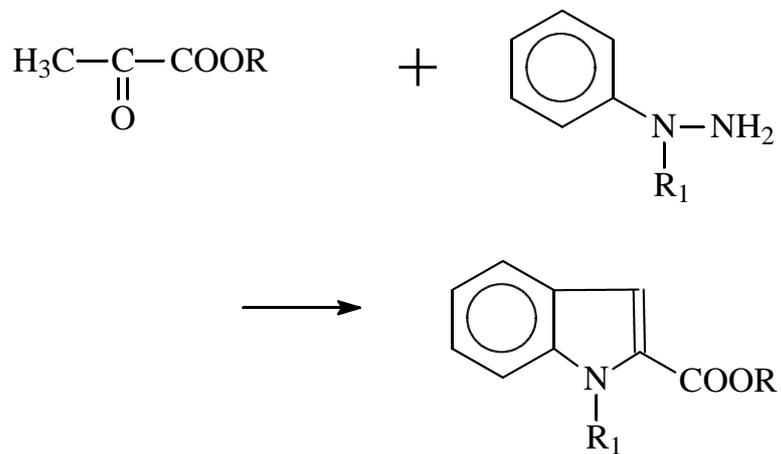


NMDA Antagonist

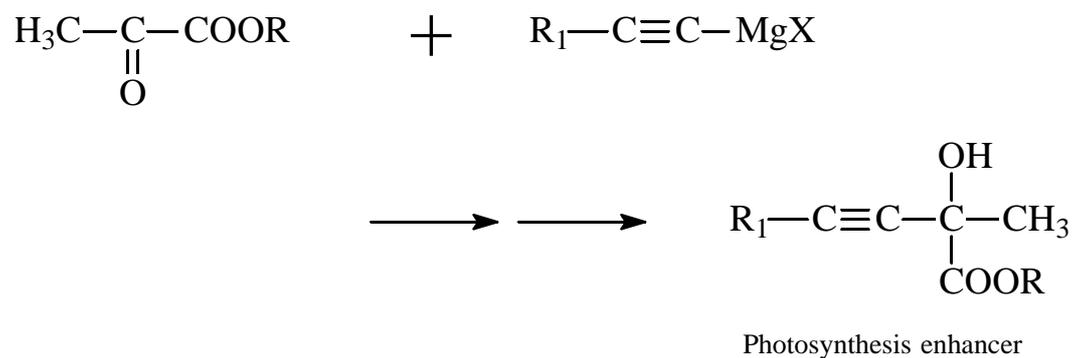
3 EP 5 7 8 5 5 0



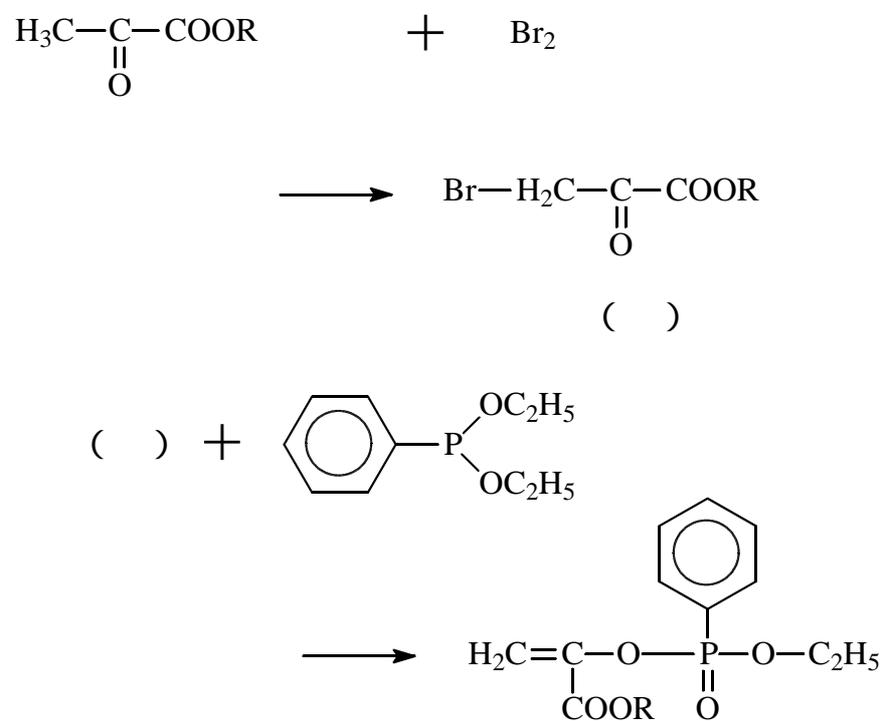
4 US 4 9 1 2 1 2 5



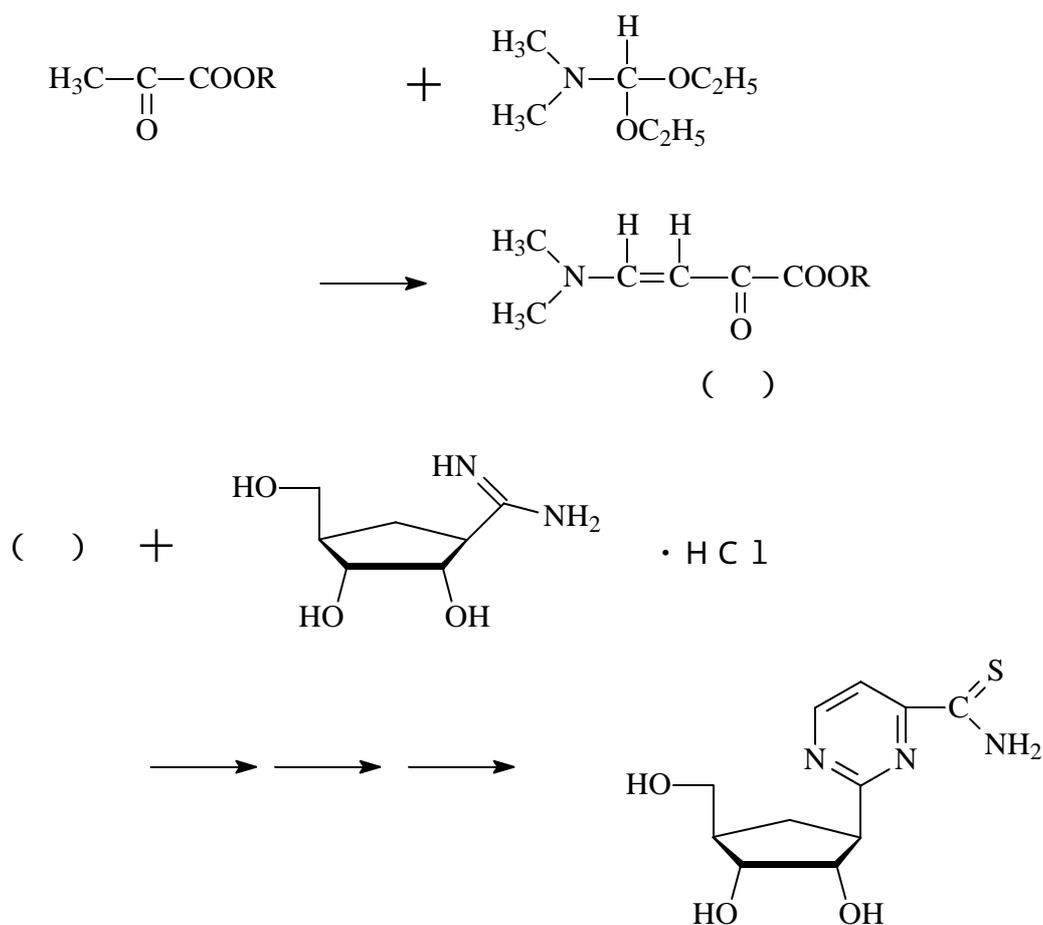
5 US 4 7 0 4 1 6 1



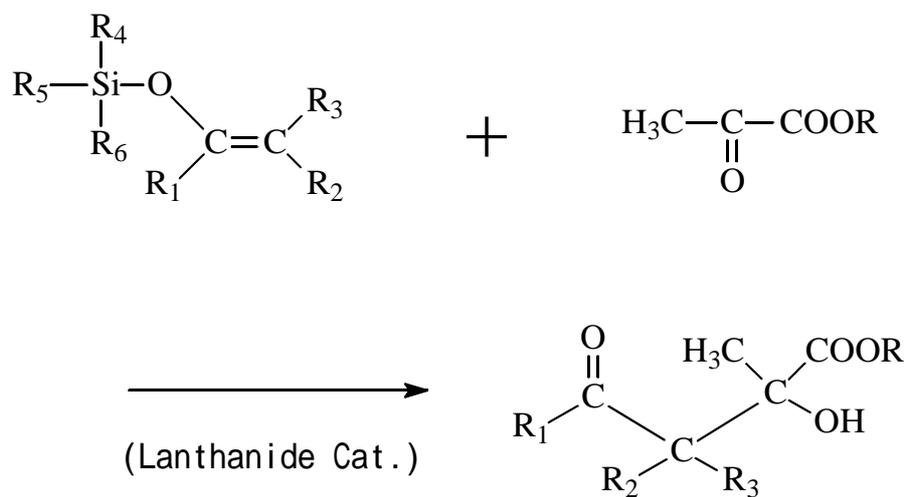
6 Tetrahedron Lett., (1990) , 31(31), 4471-4472



7 J. Heterocycl. Chem., (1987), 24(4), 955-964



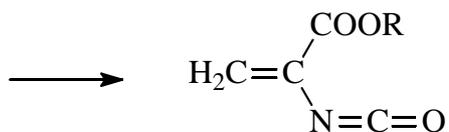
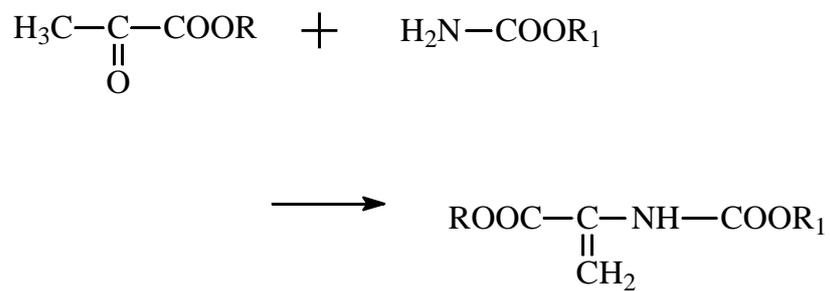
8 JP06-166652 KOKAI



Intermediate for medicine and agricultural chemicals



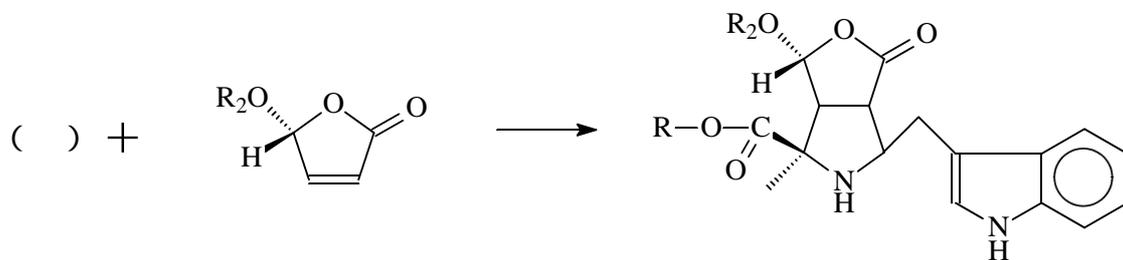
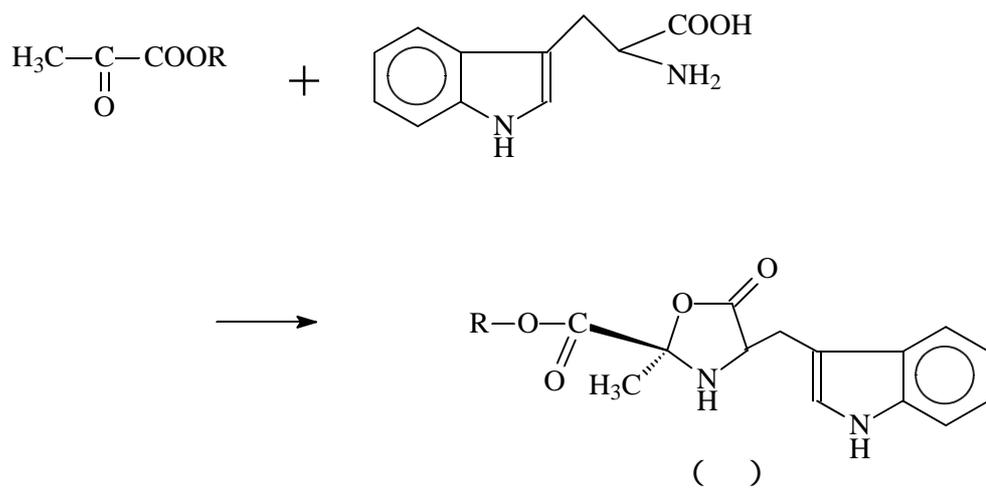
1 1 US 4 7 3 4 4 5 3



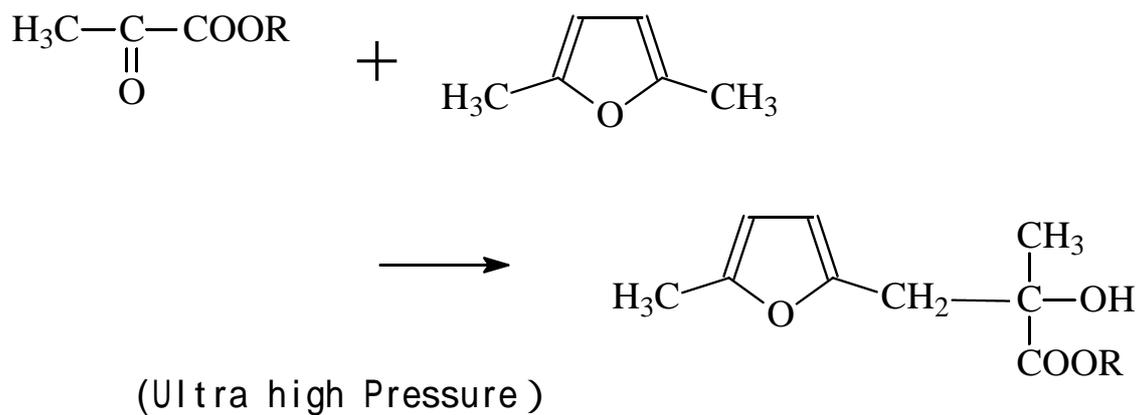
R = CH<sub>3</sub>, C<sub>2</sub>H<sub>5</sub>

R<sub>1</sub> = CH<sub>3</sub>, C<sub>6</sub>H<sub>5</sub>

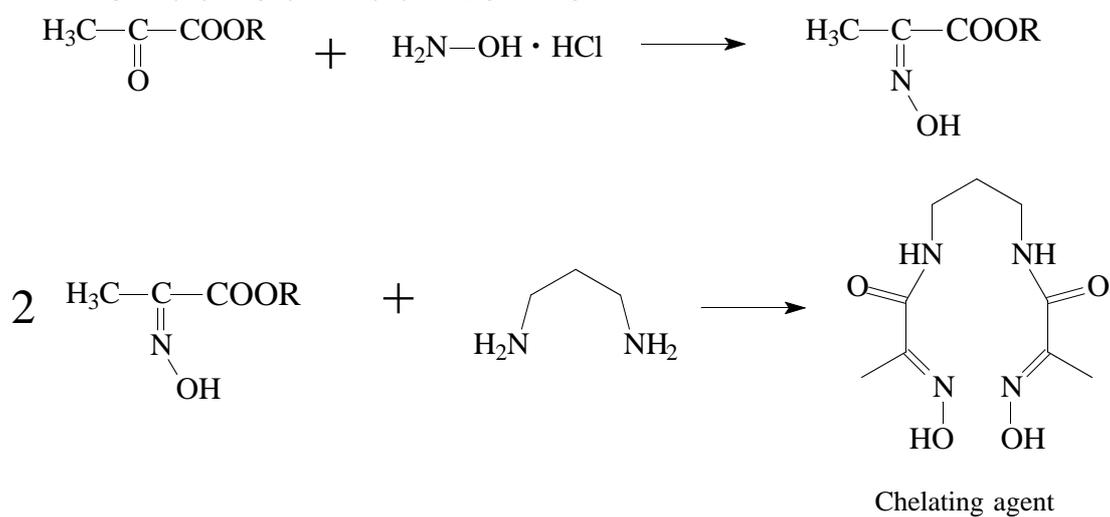
1 2 Tetrahedron:Asymmetry (1995), 6(10), 2475-2486



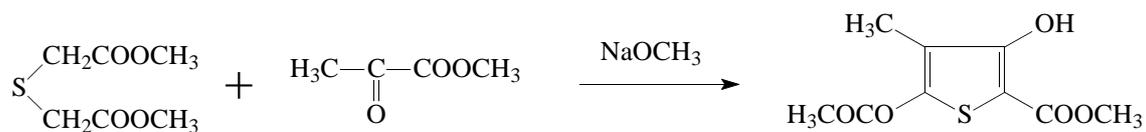
1 3 Bull. Pol. Acad. Sci., Chem. (1989), 37(7-8), 317-322



1 4 J P 0 8 - 5 0 4 4 0 0 KOHYO

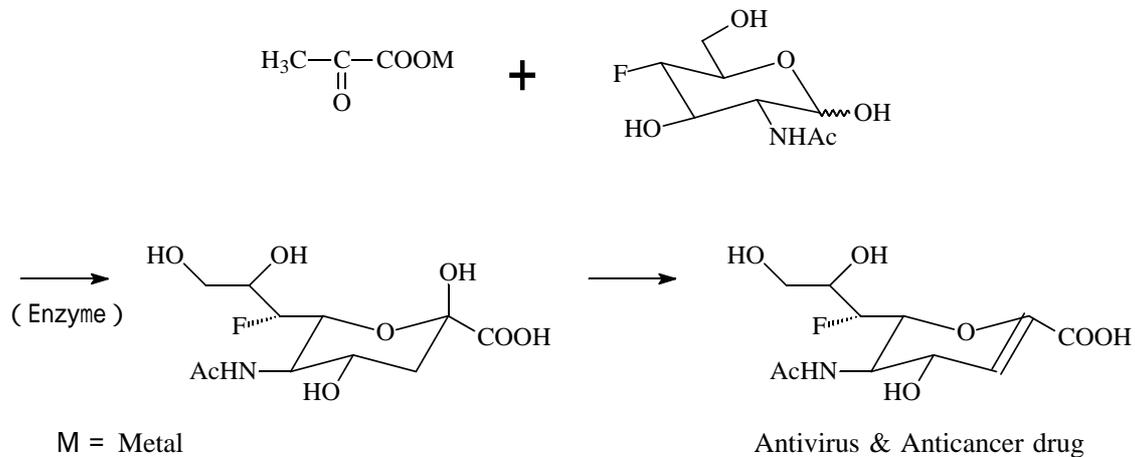


1 5 J P 0 2 - 1 6 0 7 8 0 KOKAI

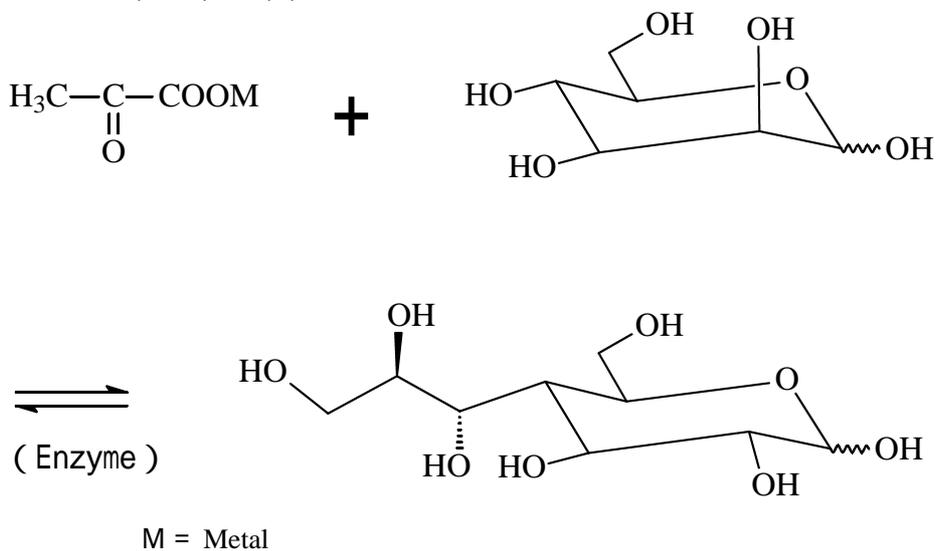


【Pyruvic acid salts】

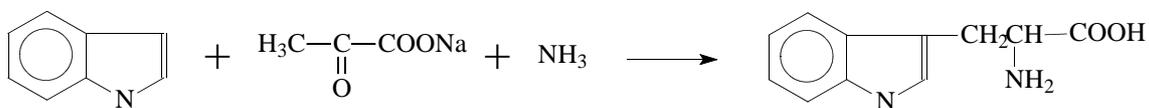
1 WO9532955



2 Tetrahedron (1990), 46(1), 201-214



3 Tryptophan Synthesis



4 Tyrosine Synthesis

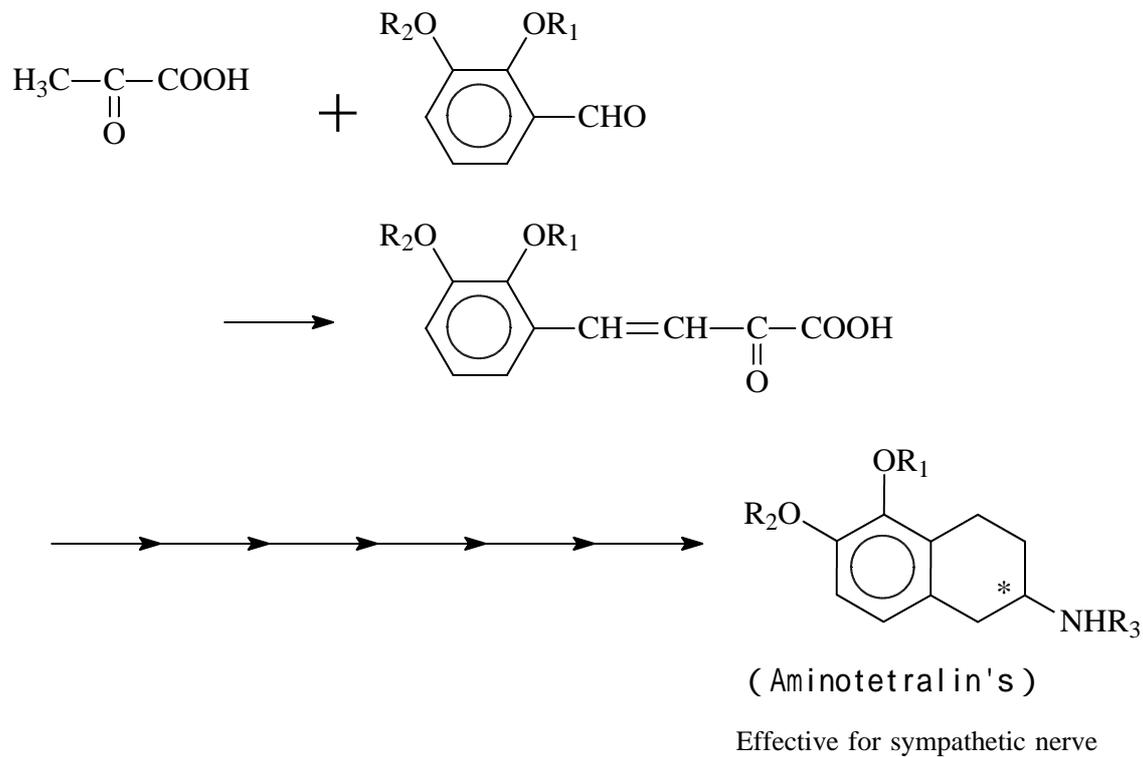


## 5 L - D O P A S y n t h e s i s

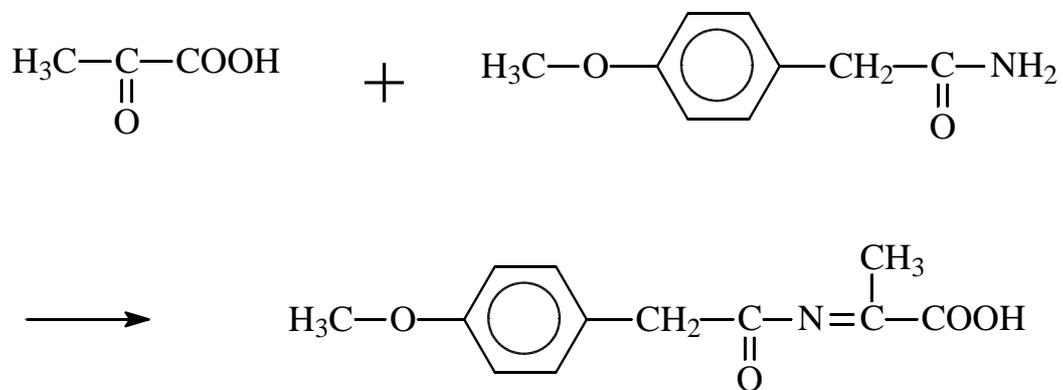


【Pyruvic Acid】

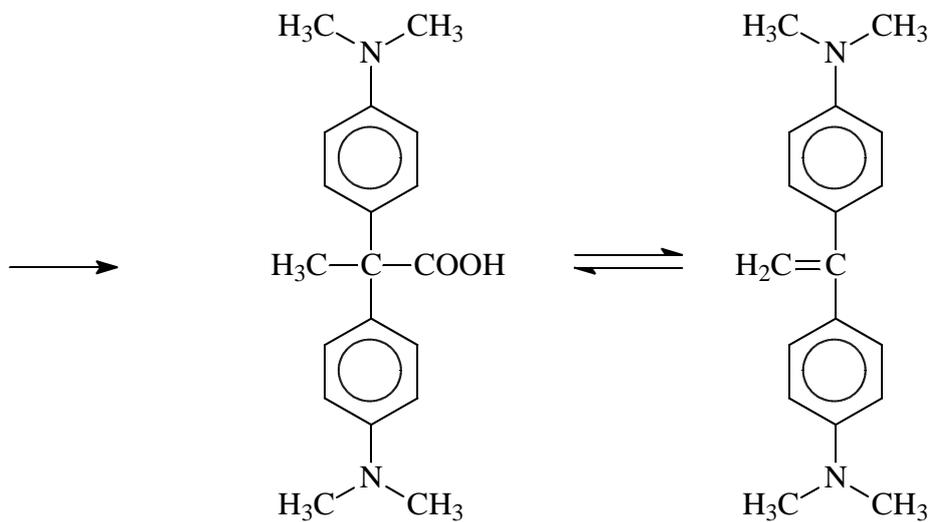
1 WO9529147



2 CA1249999

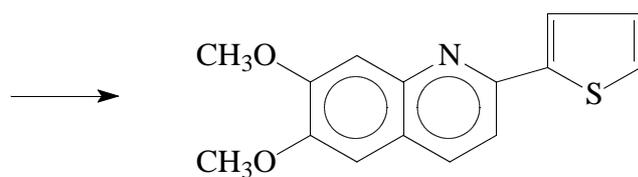
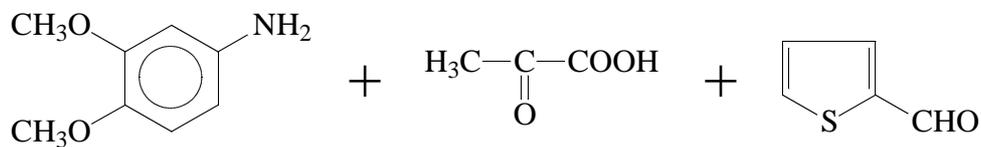


3 JP63-150251 KOKAI

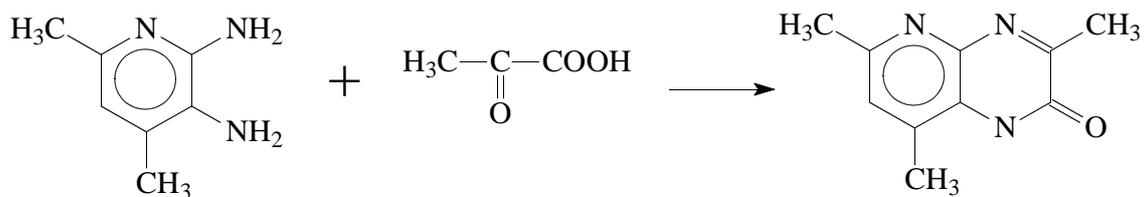


Pressure or thermo sensitive inks

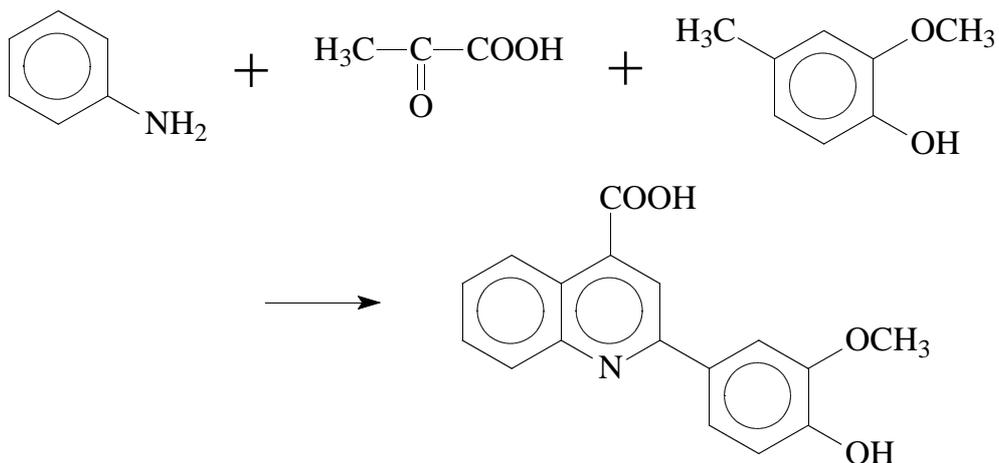
4 JP06-507643 KOHYO



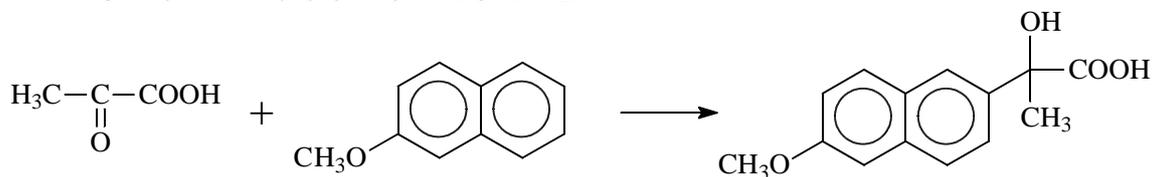
5 JP05-155884 KOKAI



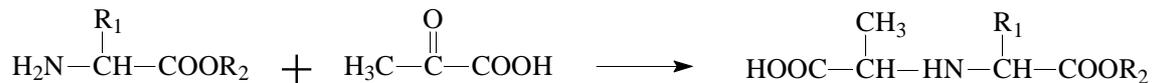
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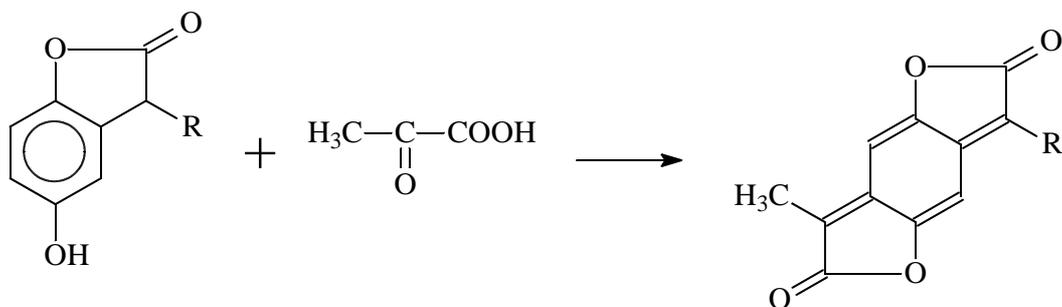
7 JP01-160940 KOKAI



8 JP01-110652 KOKAI



9 JP64-33162 KOKAI



10 JP62-99342 KOKAI

