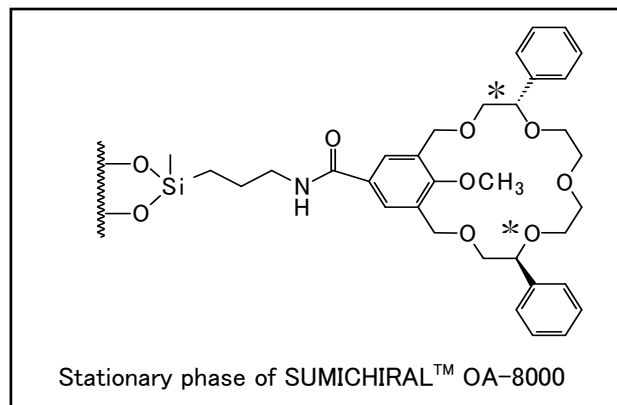


## ● Separation of Chiral Amine Compounds using Crown Ether Column

TN260E

### [Abstract]

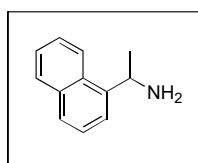
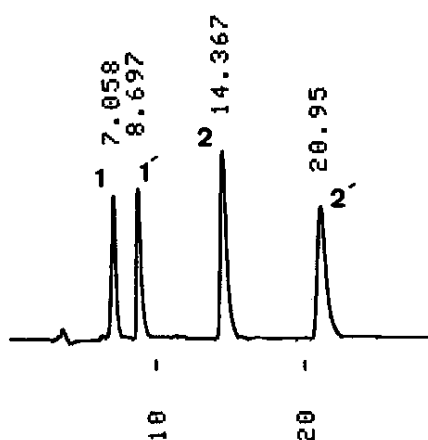
SUMICHIRAL™ OA-8000 is a chiral stationary phase based on host-guest interaction, which can efficiently separate chiral amines of pharmaceuticals and pesticides. The chiral selector of OA-8000 is a benzo18-crown-6 derivative, which is immobilized on aminopropyl silica gel. OA-8000 can trap ionized amino group ( $-NH_3^+$ ) of a test compound (guest) into the crown ether cavity (host), and separates the optically active compound through interaction with the chiral recognition moiety (\*).



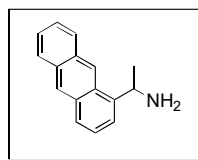
### [Feature]

1. OA-8000 is applicable to optical resolution of chiral amine, amino alcohol, amino acid, etc.  
It is particularly suitable for the separation of hydrophobic amines.
2. OA-8000 can be used for both normal phase (organic solvents mobile phase) and reversed phase (aqueous mobile phase).
3. The chiral selector of OA-8000 is immobilized on aminopropyl silica gel, so there is no limit to concentrations of organic solvents used in the mobile phase and it has excellent durability.

### [Applications 1]



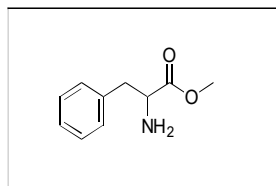
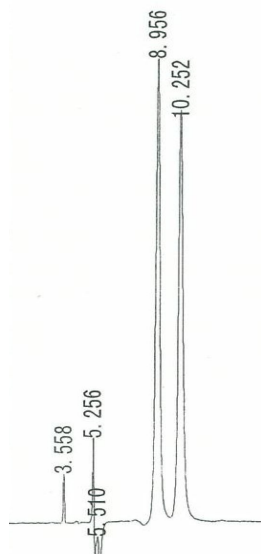
1. 1-(1-Naphthyl)-ethylamine



2. 1-(1-Anthryl)-ethylamine

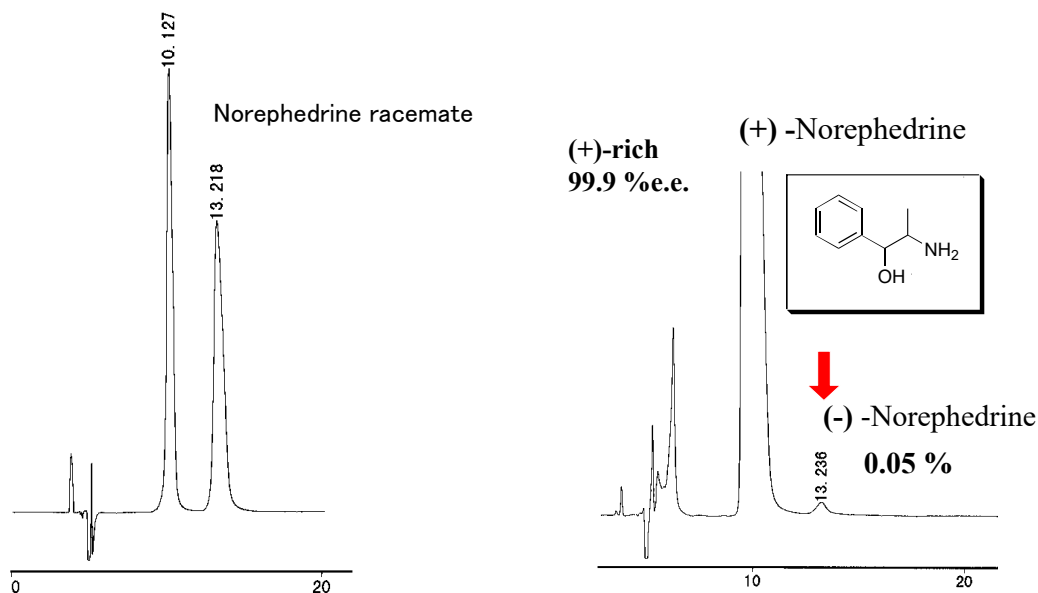
Mobile phase : perchloric acid in water (pH 2.0)/ acetonitrile (60/40)

[Applications 2] (±)-Phenylalanine methylester



Mobile phase : hexane / ethanol / trifluoroacetic acid / water (70/30/0.5/0.5)

[Applications 3] Lower limit of detection for optical purity of (±)-norephedrine



Mobile phase : hexane / ethanol / trifluoroacetic acid (70/30/0.5)

Product name	SUMICHIRAL™ OA-8000
Chiral selector	Benzo18-crown-6 derivative
Support	High purity silica gel(5μm)
Supporting method	Chemically bonded
Recommended mobile phase	[Normal phase mode] hexane / ethanol /trifluoroacetic acid [Reversed phase mode] perchloric acid in water/ acetonitrile
Compounds to be separated	Amines , Amino alcohols , Amino acids , Amino acid esters Peptides and other amino acid derivatives , Others

SUMICHIRAL is a registered trademark.