## ○Chiral separation columns　MCI GEL™ CRS10W（DLAA）
## MCI GEL™ CRS15W（LDAA）

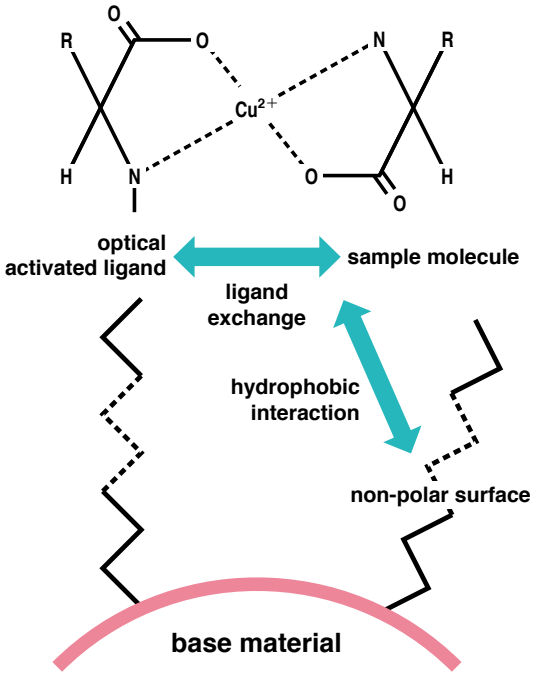
CRS10W 4.6×50

CRS15W 4.6×50

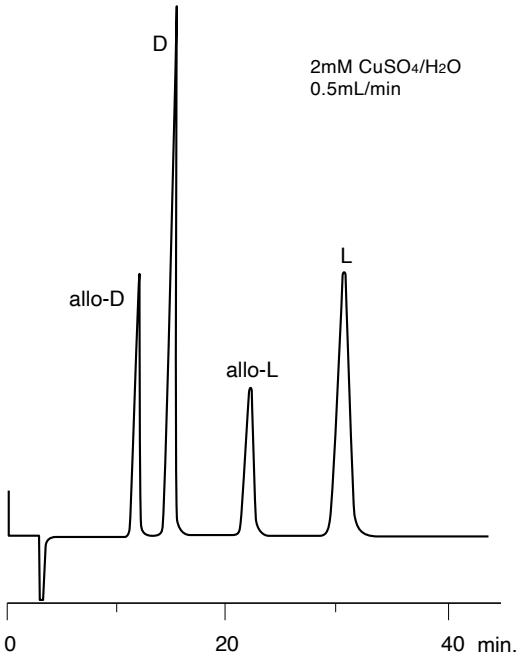
| MCI GEL™ column | Column dimensions | Particle size (μm) | USP |
|---|---|---|---|
| MCI GEL™ CRS10W | 4.6×50mm | 3 | L32 |
| MCI GEL™ CRS15W | 4.6×50mm | 3 | L32 |

## Separation mechanism and performance of MCI GEL™ CRS series

### Separation mechanism




### Application of CRS10W
### Fig. 6-1　DL-Isoleucine




### ●Separation mechanism

MCI GEL™ CRS10W and its companion product MCI GEL™ CRS15W (an optical isomer of CRS10W) are based on a 3μm with 10nm mean pore diameter of silica gel coated with N,N-Dioctyl -L(or D)-alanine which is a novel optical activated ligand. The chiral resolution mechanism is a combination of ligand exchange and hydrophobic interaction. A copper sulfate aqueous solution is used as an eluent. Elution samples are directly detected at wave length of 254 nm because complex compound, composed of sample molecule and copper in the eluent, are object of detection. With the CRS10W, D-isomers generally elute in front of L-isomers while L-isomers elute ahead of D-isomers on the CRS15W. The hydrophobic interaction mechanism allows hydrophilic samples to elute faster than hydrophobic molecules. Long alkyl chain or aromatic compounds will elute late or require an organic solvent ($CH_3CN$ or $CH_3OH$, max. of 15v/v%) to prevent adsorption onto the stationary phase.

### ●Separation performance

1. The CRS series columns separate over 20 D,L-α-Amino acids by only single column. The columns separate not only α-Amino acids but also α-Hydroxy carboxylic acids and derivative amino acids such as Acetylated amino acids.
2. The columns provide excellent resolution operated at room temperature.
3. The columns show high durability.

### ●USP L32 column