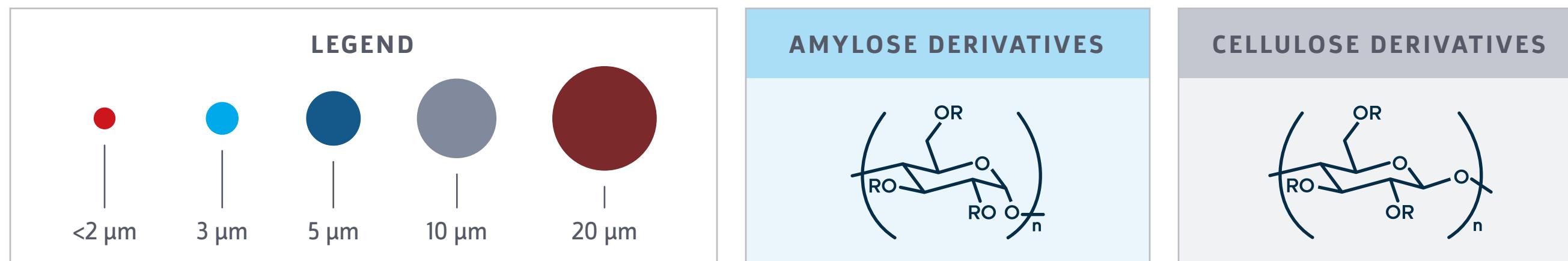
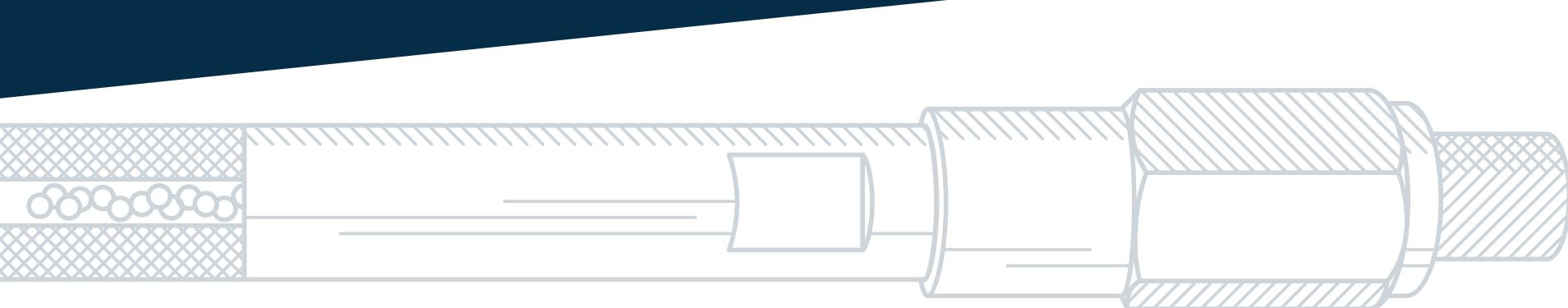


CHIRAL SELECTORS NAMES & STRUCTURES

Structures Of Commercially Available Daicel Chiral Stationary Phases



IMMOBILIZED POLYSACCHARIDE SELECTORS

| | | | |
|--------------|---|-------------------|---|
| CHIRALPAK IA | • • • • • | CHIRALPAK IB (-N) | • • • • • |
| | tris (3,5-dimethylphenylcarbamate) | | tris (3,5-dimethylphenylcarbamate) |
| CHIRALPAK IC | • • • • • | CHIRALPAK IG | • • • • • |
| | tris (3,5-dichlorophenylcarbamate) | | tris (3-chloro-5-methylphenylcarbamate) |
| CHIRALPAK ID | • • • • • | CHIRALPAK IE | • • • • • |
| | tris (3-chlorophenylcarbamate) | | tris (3,5-dichlorophenylcarbamate) |
| CHIRALPAK IF | • • • • • | CHIRALPAK IH | • • • • • |
| | tris (3-chloro-4-methylphenylcarbamate) | | tris (S)-α-methylbenzylcarbamate |
| CHIRALPAK IJ | • • • • • | CHIRALPAK IK | • • • • • |
| | tris (4-methylbenzoate) | | tris (3-chloro-5-methylphenylcarbamate) |
| CHIRALPAK IM | • • • • • | CHIRALPAK IN | • • • • • |
| | tris (3-chloro-4-methylphenylcarbamate) | | tris (5-chloro-2-methylphenylcarbamate) |

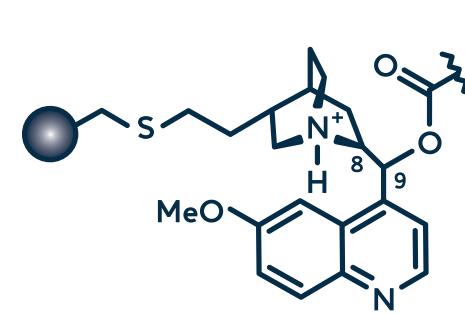
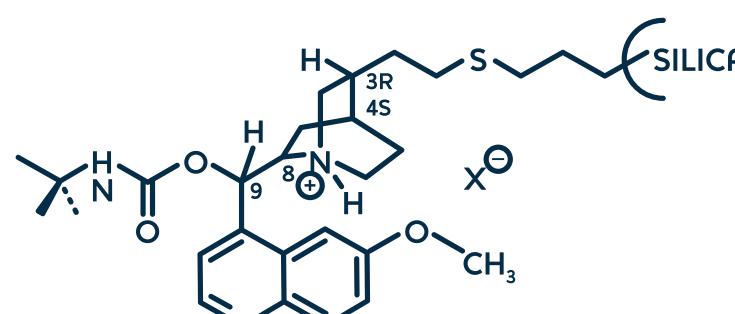
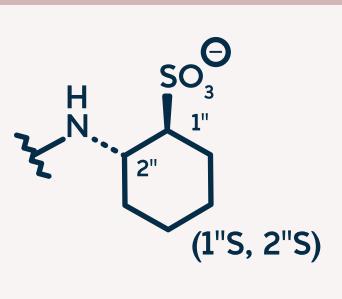
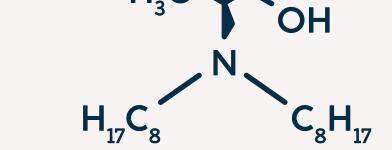
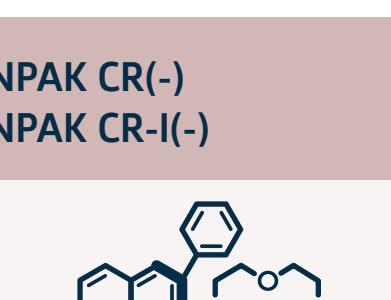
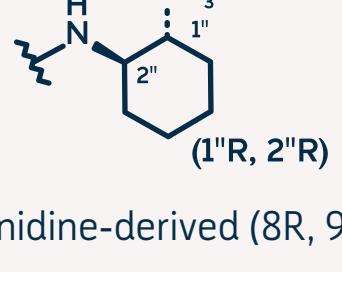
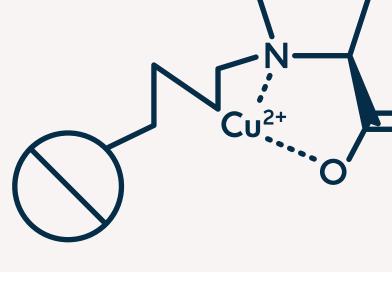
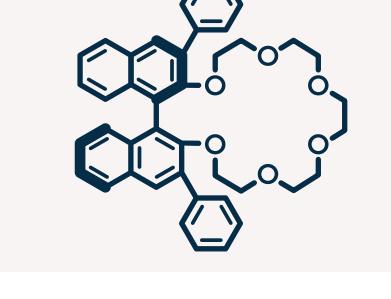
COATED POLYSACCHARIDE SELECTORS

| | | | | | |
|--------------|---|--------------|---|---------------|---|
| CHIRALPAK AD | • • • • • | CHIRALPAK AS | • • • • • | CHIRALCEL® OD | • • • • • |
| | tris (3,5-dimethylphenylcarbamate) | | tris (S)-α-methylbenzylcarbamate | | tris (3,5-dimethylphenylcarbamate) |
| CHIRALCEL OJ | • • • • • | CHIRALPAK AY | • • • • • | CHIRALPAK AZ | • • • • • |
| | tris (4-methylbenzoate) | | tris (5-chloro-2-methylphenylcarbamate) | | tris (3-chloro-4-methylphenylcarbamate) |
| CHIRALCEL OA | • | CHIRALCEL OB | • • | CHIRALCEL OC | • • |
| | Triacetate | | Tribenzoate | | tris (phenylcarbamate) |
| CHIRALCEL OF | • | CHIRALCEL OG | • | CHIRALCEL OK | • |
| | tris (4-chlorophenylcarbamate) | | tris (4-methylphenylcarbamate) | | Tricinnamate |
| CHIRALCEL OX | • • • • • | CHIRALCEL OZ | • • • • • | | |
| | tris (4-chloro-3-methylphenylcarbamate) | | tris (3-chloro-4-methylphenylcarbamate) | | |

ACHIRAL SELECTORS

| | | | | | | | |
|------------|-----|------------|-------|-----------|-----|------------|-----|
| DCpak® PBT | • • | DCpak P4VP | • • • | DCpak PTZ | • • | DCpak PMPC | • • |
| | | | | | | | |

SELECTORS FOR SPECIAL APPLICATIONS

| | | | | | | | |
|---|---|-------------------------------------|---|---|---|---|---|
| ZWITTERION EXCHANGER |  | ANION EXCHANGER |  | LIGAND EXCHANGER |  | CROWN ETHER AND IMMOBILIZED CROWN ETHER |  |
| CHIRALPAK ZWIX(+) | • • | CHIRALPAK QN-AX | • | CHIRALPAK MA(+) | • | CROWNPAK CR(+) CROWNPAK CR-I(+) | • |
|  | Quinine-derived (8S, 9R) | O-9-(tert-butylcarbamoyl) quinine | |  | |  | • |
| CHIRALPAK ZWIX(-) | • • | CHIRALPAK QD-AX | • | CHIRALPAK WH | • | CROWNPAK CR(-) CROWNPAK CR-I(-) | • |
|  | Quinidine-derived (8R, 9S) | O-9-(tert-butylcarbamoyl) quinidine | |  | |  | |

USP CODE DESIGNATIONS

| | | | | | | | |
|--|--|------------------------------------|--|------------------------------------|----------------|--------------------------------|----------------|
| L32 | L40 | L41 | L51 | L66 | L70 | L75 | L79 |
| CHIRALPAK WH | CHIRALCEL OD CHIRALCEL OD-H CHIRALCEL OD-3 | CHIRALPAK AGP | CHIRALPAK AD CHIRALPAK AD-H CHIRALPAK AD-3 | CROWNPAK CR(+) | CHIRALCEL OC-H | CHIRALPAK BSA | CHIRALPAK HSA |
| L80 | L90 | L93 | L99 | L107 | L108 | L117 | L119 |
| CHIRALCEL OJ CHIRALCEL OJ-H CHIRALCEL OJ-3 | CHIRALPAK AS CHIRALPAK AS-H CHIRALPAK AS-3 | CHIRALCEL OD-RH CHIRALCEL OD-3R | CHIRALPAK IA CHIRALPAK IA-3 | CHIRALCEL OJ-RH CHIRALCEL OJ-3R | CHIRALPAK CBH | CROWNPAK CR(-) CHIRALPAK IC | CHIRALPAK IC-3 |
| L123 | L126 | L130 | L131 | | | | |
| CHIRALCEL OZ CHIRALCEL OZ-3 CHIRALCEL OZ-H | CHIRALPAK ID | CHIRALCEL OD-R | CHIRALPAK IE CHIRALPAK IE-3 | | | | |