CHIRALPLATE G special layer enantiomer separation

Technical characteristics

- Reversed phase nano silica impregnated with Cu^{2+} ions and a chiral selector (proline derivative)
- Separation based on ligand exchange, i.e. formation of ternary mixed-ligand complexes with the Cu(II) ions, differences in the stability of the diastereomeric complexes cause chromatographic separation

Recommended application

- Enantiomer separation of amino acids, *N*-methylamino acids, *N*-formylamino acids, α-alkylamino acids, thiazolidine derivatives, dipeptides, lactones, α-hydroxycarboxylic acids

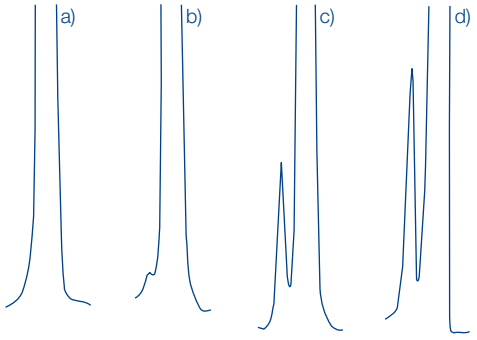
Enantiomer separation of amino acids

MN Appl. No. 400520

Quantitative determination (remission location curves) of TLC-separated enantiomers of *tert*.-leucine:

Layer:	CHIRALPLATE
Eluent:	methanol – water (10:80, v/v)
Detection:	dip in 0.3 % ninhydrin solution quantification with scanner, 520 nm

a) L-*tert*.-leucine
b) L-*tert*.-leucine + 0.1 % D-*tert*.-leucine
c) L-*tert*.-leucine + 1 % D-*tert*.-leucine
d) external reference sample



Ordering information

Plate size [cm]	5 x 20	10 x 10	10 x 20	20 x 20	Thickness of layer	Fluorescent indicator
Glass plates						
Pack of [plates]			4			
CHIRALPLATE			811056		0.25 mm	UV_{254}
Pack of [plates]	50	25	25	25		
CHIRALPLATE	811057	811059	811055	811058	0.25 mm	UV_{254}

SIL N-HR P unmodified standard silica layers

Technical characteristics

- High purity silica 60, mean pore size 60 Å, specific surface (BET) ~ 500 m^2/g, specific pore volume 0.75 mL/g, particle size 5–17 µm, different binder system compared to SIL G results in different separation characteristics
- A special feature of the POLYGRAM® SIL N-HR is a higher gypsum content

Ordering information

Plate size [cm]	5 x 20	20 x 20	Thickness of layer	Fluorescent indicator
Pack of [plates]	50	25		
POLYGRAM® polyester sheets				
SIL N-HR/UV_{254}	804022	804023	0.20 mm	UV_{254}

Layers for special TLC separations

SIL G-25 HR G special layer for aflatoxin separation

Technical characteristics

- High purity silica 60 with gypsum and a very small quantity of a polymeric organic binder; softer than the standard silica layer, i.e. spots can be scratched and the layer absorbs faster

Recommended application

- Aflatoxins

Ordering information

Plate size [cm]	20 x 20	Thickness of layer	Fluorescent indicator
Pack of [plates]	25		
Glass plates			
SIL G-25 HR	809033	0.25 mm	–
SIL G-25 HR/UV_{254}	809043	0.25 mm	UV_{254}

SIL G-25 Tenside G special layer for separation of surfactants

Technical characteristics

- Silica G impregnated with ammonium sulfate

Recommended application

- Detergents, alkanesulfonates, polyglycols

Ordering information

Plate size [cm]	20 x 20	Thickness of layer	Fluorescent indicator
Pack of [plates]	25		
Glass plates			
SIL G-25 Tenside	810063	0.25 mm	–

Nano-SIL PAH G special HPTLC silica layer for PAH analysis

Technical characteristics

- Nano silica 60, mean pore size 60 Å, specific surface (BET) ~ 500 m^2/g, specific pore volume 0.75 mL/g, particle size 2–10 µm
- Impregnated with caffeine, an electron acceptor for PAH analysis based on charge-transfer complexes

Recommended application

- 6 PAHs according to German drinking water specifications (TVO) in accordance with German standard DIN 38407 part 7

Ordering information

Plate size [cm]	10 x 20	Thickness of layer	Fluorescent indicator
Pack of [plates]	50		
Glass plates			
Nano-SIL PAH	811051	0.20 mm	–

Further application examples can be found online in our application database at *www.mn-net.com/apps*

IONEX P special mixed layers of silica with ion exchange resins

IONEX-25 SA-Na:

- Mixture of silica and a strongly acidic cation exchanger coated to polyester sheets

IONEX-25 SB-AC:

- Mixture of silica and a strongly basic anion exchanger coated to polyester sheets
- Both layers contain an inert organic binder

Recommended application

- Amino acids, e.g., in protein and peptide hydrolyzates, in seeds and fodder, in biological fluids; for racemate separation in peptide syntheses, for the separation of nucleic acid hydrolyzates, aminosugars, amino acids, antibiotics, inorganic phosphates, cations and other compounds with ionic groups

Ordering information

Plate size [cm]		20 x 20	Thickness of layer	Fluorescent indicator
Pack of [plates]		25		
POLYGRAM® polyester sheets				
IONEX-25 SA-Na	strongly acidic cation exchanger	806013	0.20 mm	–
IONEX-25 SB-AC	strongly basic anion exchanger	806023	0.20 mm	–

Mixed layers for TLC G

Alox/CEL-AC-Mix-25:

- Mixed layer of aluminum oxide G and acetylated cellulose, recommended for separation of PAH

SILCEL-Mix-25:

- Mixed layer of cellulose and silica, recommended for separation of preservatives and other antimicrobial compounds

Ordering information

Plate size [cm]	20 x 20	Thickness of layer	Fluorescent indicator
Pack of [plates]	25		
Glass plates			
Alox/CEL-AC-Mix-25	810053	0.25 mm	–
SILCEL-Mix-25 UV_{254}	810043	0.25 mm	UV_{254}

Further application examples can be found online in our application database at *www.mn-net.com/apps*