

Nano-SIL NH₂ G A amino-modified HPTLC silica layers

Technical characteristics

- Nano silica 60, mean pore size 60 Å, specific surface (BET) ~ 500 m²/g, specific pore volume 0.75 mL/g, pH stability 2–8, particle size 2–10 µm
- Indicator: acid-resistant product with a pale blue fluorescence for short-wave UV (254 nm), UV-absorbing substances appear as dark-blue to black spots on a light-blue background

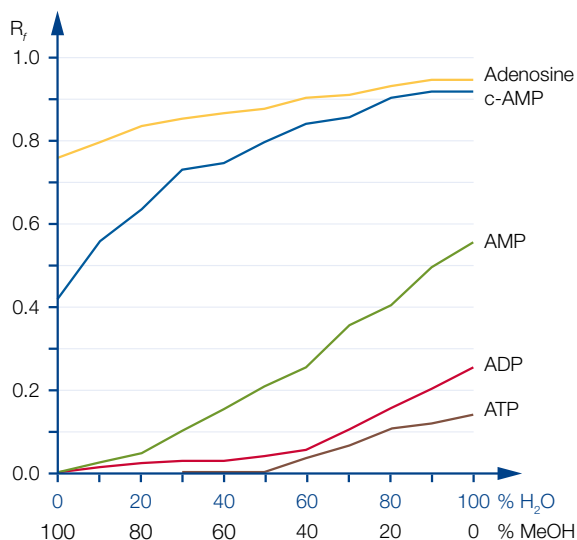
Modification

- Aminopropyl modification, carbon content 3.5 %
- Order of polarity: silica > DIOL > NH₂ > CN > RP-2 > C18-50 > RP-18 W > C18-100
- Layer can be wetted equally well with pure water as with organic solvents

Recommended application

- Vitamins, sugars, steroids, purine derivatives, xanthenes, phenols, nucleotides and pesticides

Influence of eluent composition on the separation of nucleotides



Layer: Nano-SIL NH₂/UV
 Eluent: MeOH – H₂O according to fig. + 0.18 mol/L NaCl
 Migration distance: 7 cm

c-AMP, AMP: adenosine monophosphate
 ADP: adenosine diphosphate
 ATP: adenosine triphosphate

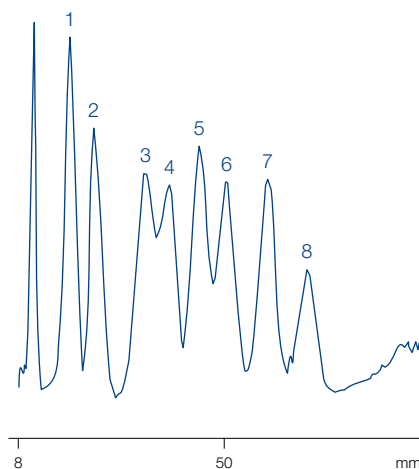
Separation of sugars

MN Appl. No. 401590

Layer: Nano-SIL NH₂/UV
 Sample volume: 0.5 µL
 Eluent: ethyl acetate – pyridine – water – glacial acetic acid (60:30:10:5, v/v/v/v)
 Migration distance: 80 mm in 45 min, double development
 Detection: dry layer at 160 °C for 5 min, TLC scanner, UV 254 nm

Peaks (0.1 % each):

1. Lactose
2. Saccharose
3. Galactose
4. Glucose
5. Fructose
6. Arabinose
7. Xylose
8. Ribose



Ordering information

Plate size [cm]	4 x 8	10 x 10	10 x 20	Thickness of layer	Fluorescent indicator
Pack of [plates]	50	25	25		

Glass plates

Nano-SIL NH ₂ /UV	811111	811112	0.20 mm	UV ₂₅₄
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ALUGRAM® aluminum sheets

Nano-SIL NH ₂ /UV	818182		0.15 mm	UV ₂₅₄
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Further application examples can be found online in our application database at www.mn-net.com/apps

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