

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

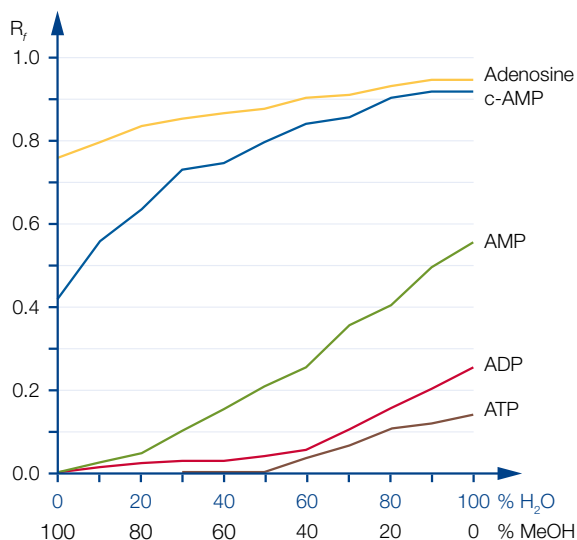
Modification

- 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

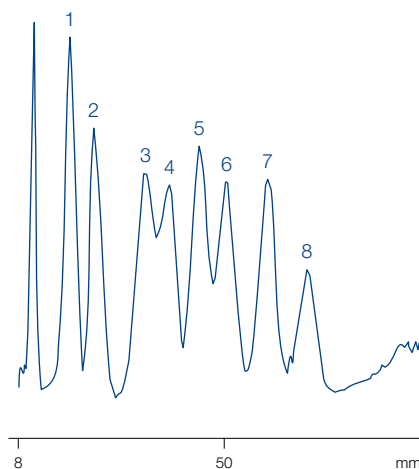
Separation of sugars

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

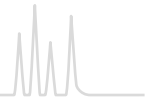
| | | | | |
|------------------------------|--------|--------|---------|-------------------|
| Nano-SIL NH ₂ /UV | 811111 | 811112 | 0.20 mm | UV ₂₅₄ |
|------------------------------|--------|--------|---------|-------------------|

ALUGRAM® aluminum sheets

| | | | | |
|------------------------------|--------|--|---------|-------------------|
| Nano-SIL NH ₂ /UV | 818182 | | 0.15 mm | UV ₂₅₄ |
|------------------------------|--------|--|---------|-------------------|

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

Index of reference numbers



| REF | Page | REF | Page | REF | Page |
|-----------|------|-----------|------|------------|------|
| 814404 | 296 | 815410.1 | 260 | 818131 | 276 |
| 814405 | 271 | 815430.1 | 260 | 818132 | 276 |
| 814406 | 271 | 815510.1 | 261 | 818133 | 276 |
| 814407 | 271 | 815510.5 | 261 | 818141 | 281 |
| 814919 | 296 | 815530.1 | 261 | 818143 | 281 |
| 814920 | 296 | 815530.5 | 261 | 818144 | 284 |
| 814921 | 296 | 815540.1 | 261 | 818145 | 284 |
| 814922 | 296 | 815540.5 | 261 | 818146 | 284 |
| 814923 | 296 | 815550.1 | 261 | 818147 | 284 |
| 815010.1 | 260 | 815550.5 | 261 | 818152 | 284 |
| 815010.25 | 260 | 815560.1 | 261 | 818153 | 289 |
| 815010.5 | 260 | 815560.5 | 261 | 818155 | 289 |
| 815020.1 | 260 | 815600.1 | 262 | 818156 | 289 |
| 815020.25 | 260 | 815600.5 | 262 | 818157 | 289 |
| 815020.5 | 260 | 815610.1 | 262 | 818160 | 276 |
| 815030.1 | 260 | 815610.5 | 262 | 818161 | 276 |
| 815030.25 | 260 | 815620.1 | 262 | 818162 | 276 |
| 815030.5 | 260 | 815620.5 | 262 | 818163 | 276 |
| 815050.1 | 262 | 815650.1 | 260 | 818171 | 284 |
| 815050.25 | 262 | 815650.25 | 260 | 818182 | 286 |
| 815050.5 | 262 | 815650.5 | 260 | 818184 | 285 |
| 815060.1 | 262 | 815710.1 | 261 | 818230.20 | 275 |
| 815060.25 | 262 | 815710.5 | 261 | 818232 | 275 |
| 815060.5 | 262 | 816250.1 | 297 | 818233 | 275 |
| 815070.1 | 262 | 816250.5 | 297 | 818240 | 281 |
| 815300.1 | 260 | 816310.1 | 297 | 818241 | 281 |
| 815300.25 | 260 | 816310.5 | 297 | 818261 | 275 |
| 815300.5 | 260 | 816320.1 | 297 | 818329 | 275 |
| 815310.1 | 260 | 816320.5 | 297 | 818330.20 | 275 |
| 815310.25 | 260 | 816330.1 | 297 | 818331 | 275 |
| 815310.5 | 260 | 816330.5 | 297 | 818332 | 275 |
| 815320.1 | 260 | 816340.1 | 297 | 818333 | 275 |
| 815320.25 | 260 | 816340.5 | 297 | 818342 | 281 |
| 815320.5 | 260 | 816380.1 | 297 | 818343 | 281 |
| 815330.1 | 260 | 816380.5 | 297 | 818360 | 275 |
| 815330.25 | 260 | 816400.1 | 297 | 818362 | 275 |
| 815330.5 | 260 | 816400.5 | 297 | 818412 | 279 |
| 815340.1 | 260 | 816410.1 | 297 | 818413 | 279 |
| 815340.25 | 260 | 816410.5 | 297 | 818422 | 279 |
| 815340.5 | 260 | 816610.1 | 297 | 818423 | 279 |
| 815350.1 | 260 | 816620.1 | 297 | 818432 | 279 |
| 815350.25 | 260 | 816710.01 | 296 | 818442 | 279 |
| 815350.5 | 260 | 816720.01 | 296 | 818666 | 295 |
| 815360.1 | 260 | 817001 | 294 | 821005 | 274 |
| 815360.25 | 260 | 817002 | 294 | 821010 | 274 |
| 815360.5 | 260 | 817003 | 294 | 821010.200 | 274 |
| 815380.1 | 260 | 817004 | 294 | 821015 | 274 |
| 815380.25 | 260 | 817005 | 294 | 821020 | 274 |
| 815380.5 | 260 | 817006 | 294 | 821025 | 274 |
| 815381.1 | 260 | 817007 | 294 | 821030 | 274 |
| 815381.25 | 260 | 817008 | 294 | 821040 | 274 |
| 815381.5 | 260 | 818023 | 288 | 821040.200 | 274 |
| 815390.1 | 260 | 818024 | 288 | 821050 | 274 |
| 815390.25 | 260 | 818030.20 | 276 | 821060 | 274 |
| 815390.5 | 260 | 818032 | 276 | 821110 | 281 |
| 815400.1 | 260 | 818033 | 276 | 821120 | 281 |
| 815400.25 | 260 | 818129 | 276 | 821140 | 281 |
| 815400.5 | 260 | 818130.20 | 276 | 821150 | 281 |