

GC

OPTIMA[®] FFAPplus

New polar Nitroterephthalic acid modified polyethylene glycol column with innovative cross-linking!

- ✓ Improved temperature stability: operating range from 40 °C to 250 °C (isothermal), 260 °C for short periods of time during a temperature program
- ✓ Excellent solvent stability
- ✓ Extended column lifetime
- ✓ Low column bleed, better suited for MS than conventional FFAP columns
- ✓ Allows for injection of aqueous samples
- ✓ Enables the determination of free carboxylic acids without derivatization
- ✓ OPTIMA[®] FFAPplus follows USP G35

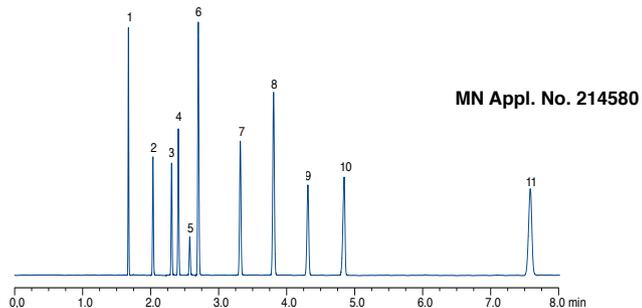
Fields of application:

- Alcohols
- Solvents
- Fragrances
- FAMES
- Analysis of foods and natural substances
- BTEX analysis



Solvents

OPTIMA® FFAPplus, 30 m, 0.25 mm, 0.25 µm
 Carrier gas pressure: 1.1 bar He
 Injection volume: 0.1 µL hot needle injection, Split: 1:200
 Injection temperature: 230 °C
 Detector temperature: FID 260 °C
 Oven temperature: 60 °C (8 min), 15 °C/min, 150 °C (10 min)

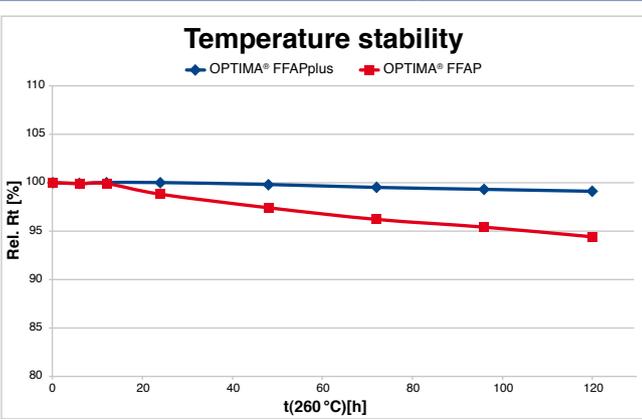


MN Appl. No. 214580

Peaks:
 1 n-hexane, 2 acetone, 3 ethyl acetate, 4 methyl ethyl ketone (MEK),
 5 dichloromethane, 6 benzene, 7 methyl isobutyl ketone (MIBK),
 8 toluene, 9 n-butyl acetate, 10 undecane, 11 o-xylene

The columns are conditioned at T=260 °C for a longer period of time. At various times, the relative retention of methyl undecanoate is determined with a temperature gradient (80 °C → 240 °C). The relative retention time on the FFAP-plus decreases insignificantly, compared with the FFAP.

OPTIMA® FFAPplus, 30 m, 0.25 mm, 0.25 µm
 Carrier gas pressure: 0.8 bar He
 Injection volume: 1 µL, Split 1:50
 Injection temperature: 260 °C
 Detector temperature: FID 260 °C MN Appl. No. 214600

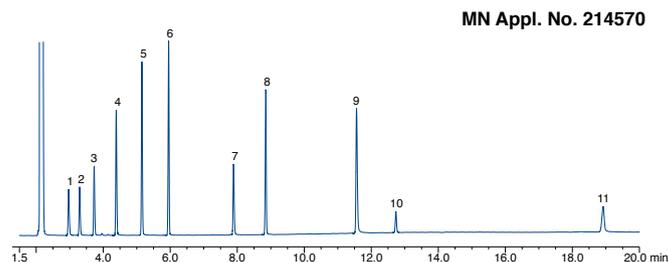


Ordering information

REF	Phase	ID	FD	Length
726241.30	OPTIMA® FFAPplus	0,25 mm	0,25 µm	30 m
726241.60	OPTIMA® FFAPplus	0,25 mm	0,25 µm	60 m
726242.30	OPTIMA® FFAPplus	0,25 mm	0,50 µm	30 m
726242.60	OPTIMA® FFAPplus	0,25 mm	0,50 µm	60 m
726243.30	OPTIMA® FFAPplus	0,32 mm	0,25 µm	30 m
726243.60	OPTIMA® FFAPplus	0,32 mm	0,25 µm	60 m
726246.30	OPTIMA® FFAPplus	0,32 mm	0,50 µm	30 m
726246.60	OPTIMA® FFAPplus	0,32 mm	0,50 µm	60 m

Carboxylic acids

OPTIMA® FFAPplus, 30 m, 0.25 mm, 0.25 µm
 Carrier gas pressure: 1.0 bar He
 Injection volume: 1 µL Injection, Split: 1:50
 Injection temperature: 230 °C
 Detector temperature: FID 260 °C
 Oven temperature: 150 °C, 10 °C/min, 260 °C (10 min)

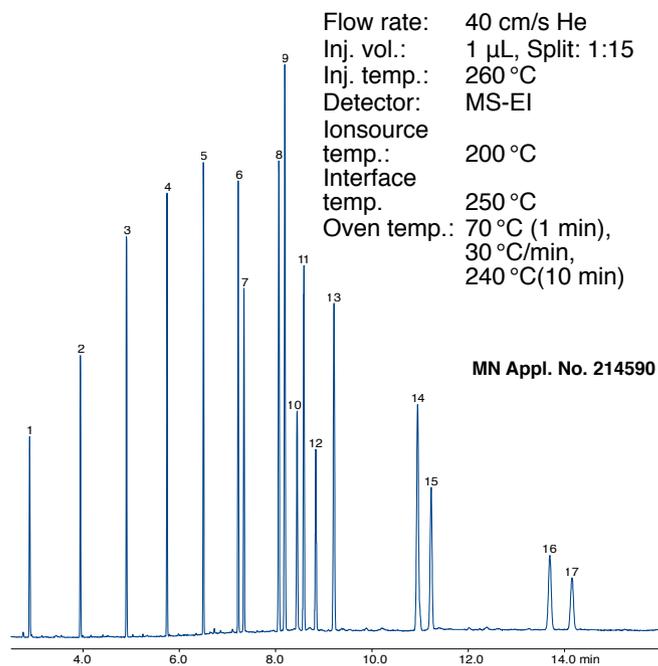


MN Appl. No. 214570

Peaks:
 1 acetic acid, 2 propionic acid, 3 butyric acid, 4 valeric acid,
 5 caproic acid, 6 2-ethylcaproic acid, 7 sorbic acid, 8 capric acid,
 9 hydratropic acid, 10 myristic acid, 11 stearic acid

FAMES from biodiesel acc. DIN EN 14103:2011

OPTIMA® FFAPplus, 30 m, 0.25 mm, 0.25 µm



Flow rate: 40 cm/s He
 Inj. vol.: 1 µL, Split: 1:15
 Inj. temp.: 260 °C
 Detector: MS-EI
 Ion source temp.: 200 °C
 Interface temp.: 250 °C
 Oven temp.: 70 °C (1 min),
 30 °C/min,
 240 °C (10 min)

MN Appl. No. 214590

Peaks:
 Methyl ester from:
 1 caproic acid (C6:0), 2 caprylic acid (C8:0), 3 capric acid (C10:0),
 4 lauric acid (C12:0), 5 myristic acid (C14:0),
 6 palmitic acid (C16:0), 7 palmitoleic acid (C16:1),
 8 stearic acid (C18:0), 9 oleic acid (C18:1 cis),
 10 linoleic acid (C18:2 cis), 11 nonadecanoic acid (C19:0),
 12 linolenic acid (C18:3), 13 arachidic acid (C20:0),
 14 behenic acid (C22:0), 15 erucic acid (C22:1 cis),
 16 lignoceric acid (C24:0), 17 nervonic acid (C24:1 cis)

MACHERY-NAGEL

AZ Chrom s.r.o., Robotnícka 10, 831 03 Bratislava

Tel. 0907 244526, Fax. 02-20715811, azetchrom@hplc.sk, www.azetchrom.sk



Since 1911