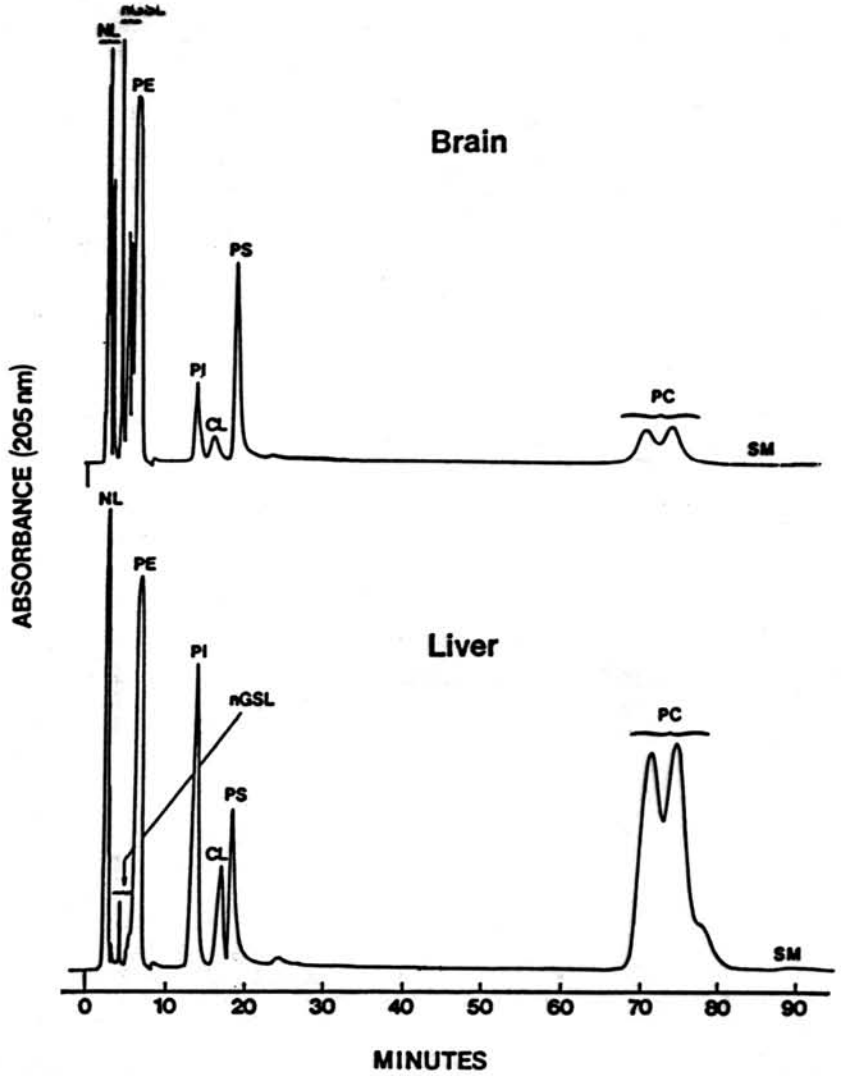
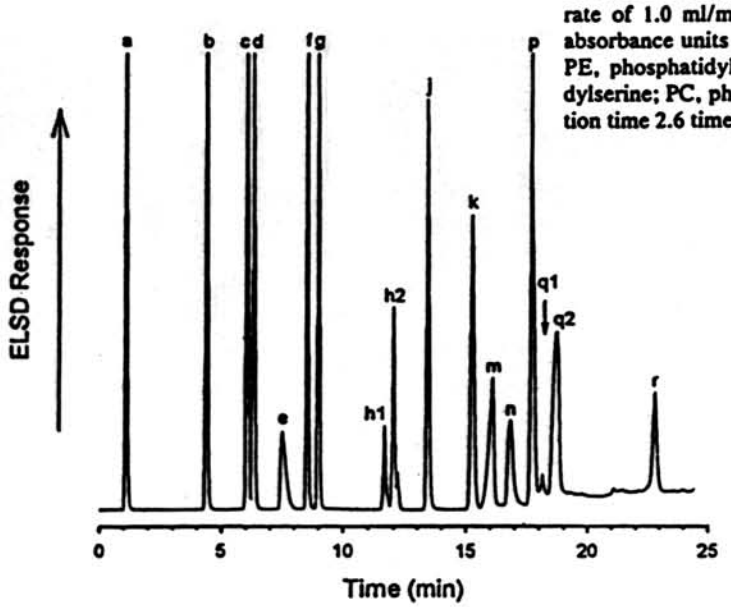
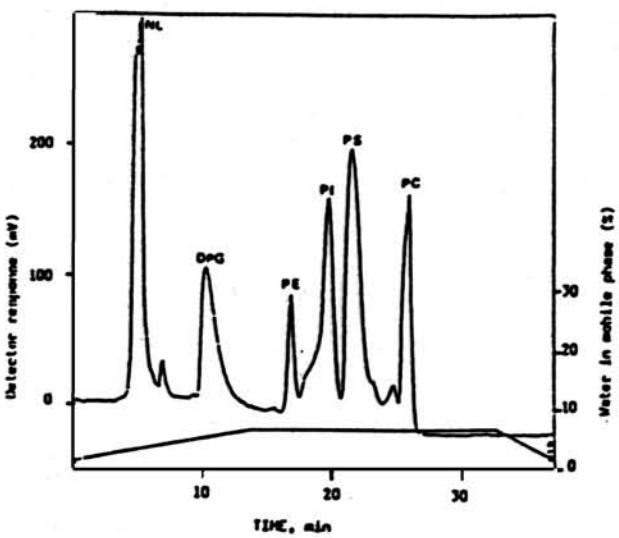


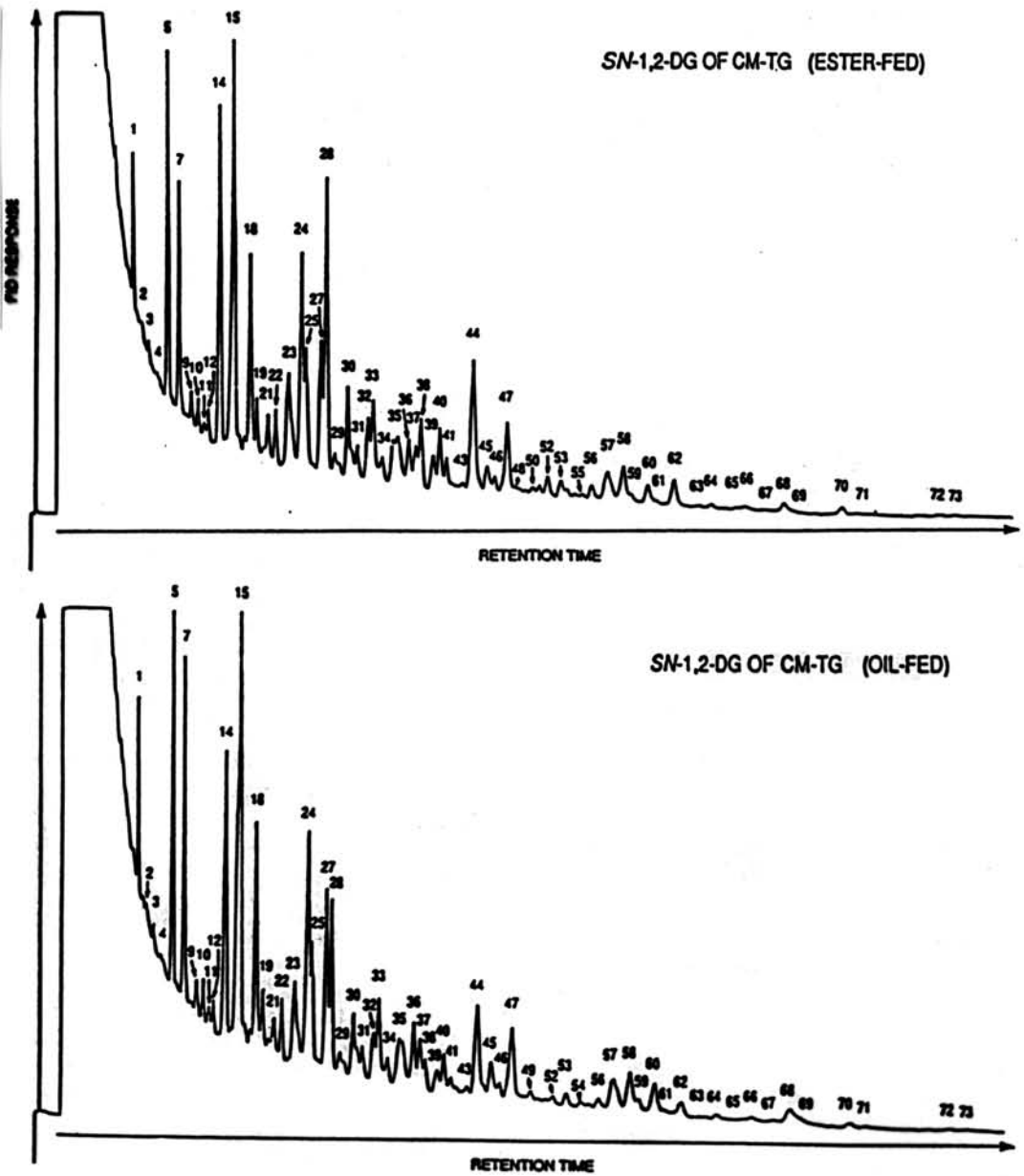
Dělení fosfolipidových tříd HPLC na normální fázi. One milligram of rat brain PLs or 2 mg of rat liver PLs are dissolved in 100 μl of the mobile phase and injected onto a 4.0 mm × 25 cm LiChrospher Si 100 (5 μm) column. The column is eluted with hexane/2-propanol/ethanol/25 m*M* potassium phosphate (pH 7.0)/acetic acid (485 : 367 : 100 : 56 : 0.275) at a flow rate of 1.0 ml/min. Detection is by absorbance at 205 nm with an attenuation of 2.56 absorbance units full scale (AUFS). NL, neutral lipids; nGSL, neutral glycosphingolipids; PE, phosphatidylethanolamine; PI, phosphatidylinositol; CL, cardiolipin; PS, phosphatidylserine; PC, phosphatidylcholine; SM, sphingomyelin. Lyso-PC (not shown) has a retention time 2.6 times that of PC.



Dělení lipidů HPLC a detekce evaporative light-scattering detektorem. A 10-μl volume of isooctane–tetrahydrofuran (9:1, v/v) containing 5 μg each of cholesteryl ester (a), triacylglycerol (b), cholesterol (c), diacylglycerol (d), oleic acid (e), 1,2-hexadecanediol (f), monoacylglycerol (g), cerebrosides (h1, type II; h2, type I), cardiolipin (j), phosphatidylethanolamine (k), phosphatidylinositol (m), phosphatidylserine (n), phosphatidylcholine (p), sphingomyelin (q1, q2) and lysophosphatidylcholine (r) was chromatographed as described in the text. SPHERISORB SSV SILICA

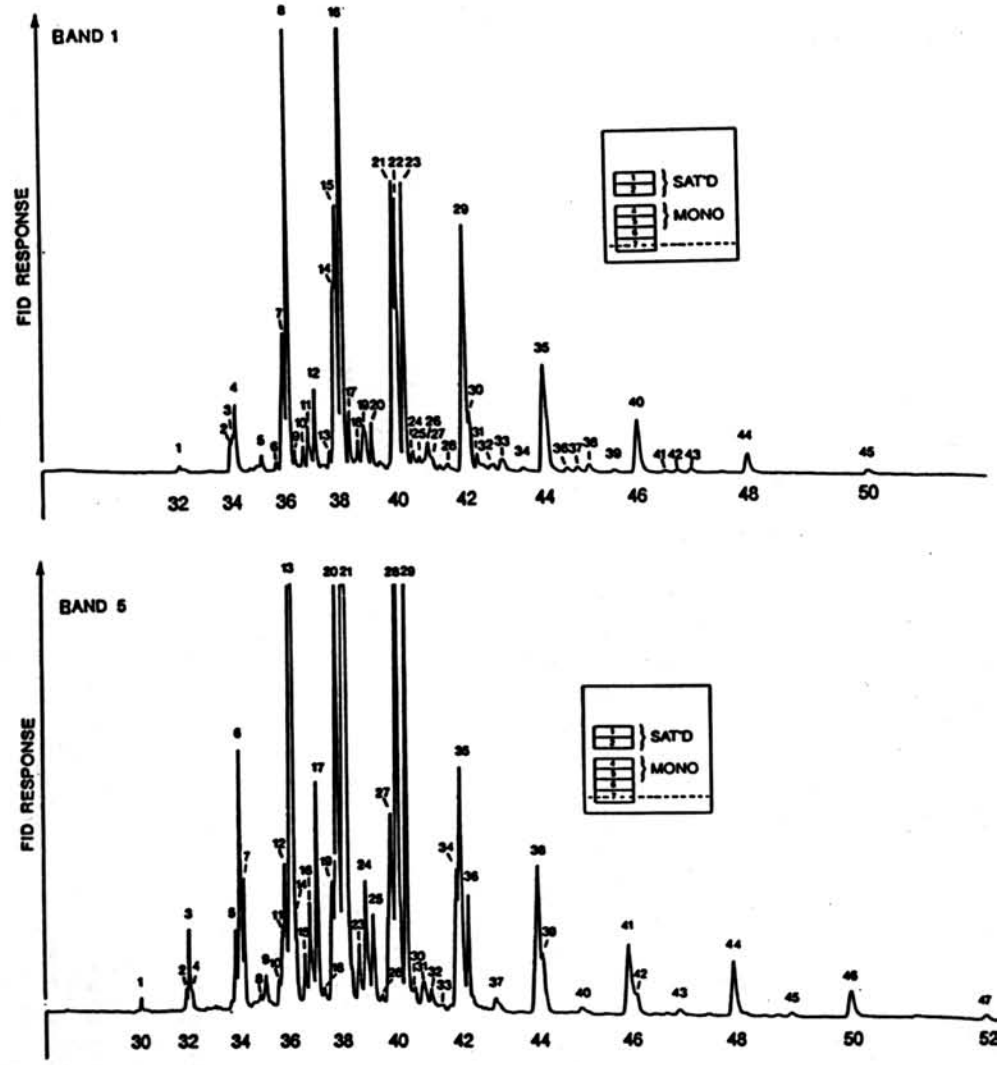


Dělení fosfolipidových tříd HPLC na normální fázi. Mobile phase: 2-propanol–hexane–water (55:42:2 to 52:39:9, v/v/v in 15 min); flow-rate: 0.8 ml/min; 250 × 4 mm I.D. column packed with 5 μm LiChrosorb Si60 particles; UV detection at 206 nm. NL: neutral lipids; DPG: diphosphatidylglycerol; PE: phosphatidylethanolamine; PI: phosphatidylinositol; PS: phosphatidylserine; PC: phosphatidylcholine. The solvent gradient is shown at the bottom of the chromatogram.



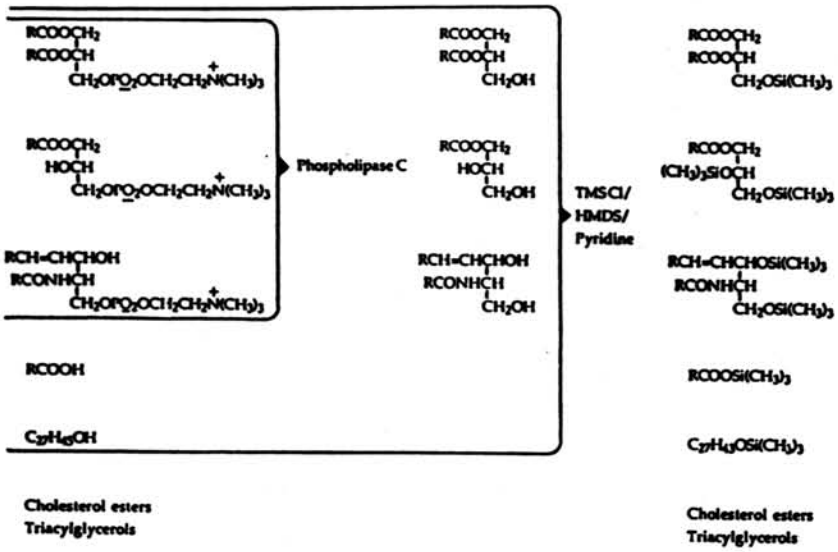
Příklad polárních kapilárních GLC profilů diacylglycerolů.

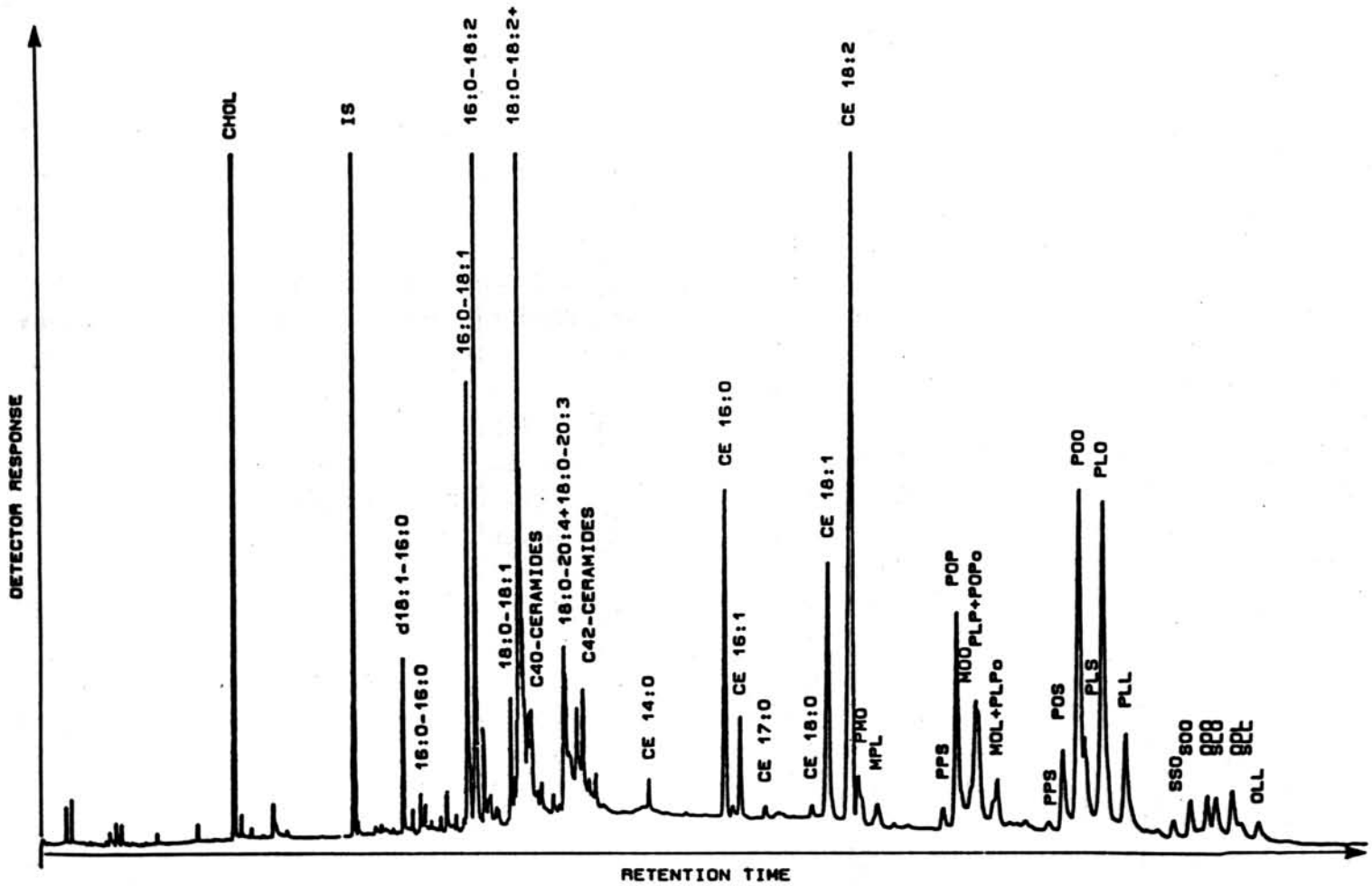
Polar capillary GLC profiles of *sn*-1,2-(A) and *sn*-2,3-(B) diacylglycerols derived from rat chylomicron triacylglycerols during absorption of fish oil triacylglycerols [130]. GC conditions: instrument, Hewlett-Packard Model 5880 equipped with a polar capillary column (15 m × 0.32 mm I.D.) wall coated with cross-bonded film of RTx-2330 (Restek, Port Matilda, PA, USA). Carrier gas, H_2 at 3 p.s.i (20.7 kPa) head pressure. Temperature program: 240–260°C at 1°C/min, then isothermal at 260°C. Sample: 1 μl of (ca. 0.1% solution of TMS-treated lipid mixture in hexane. Reproduced with permission from *Journal of Lipid Research*.



Polární kapilární GC nasycených dlouhořetězcových (band 1) a krátkořetězcových (band 2) triacylglycerolových frakcí izolovaných z másla pomocí TLC impregnovou stříbrem (AgNO3).

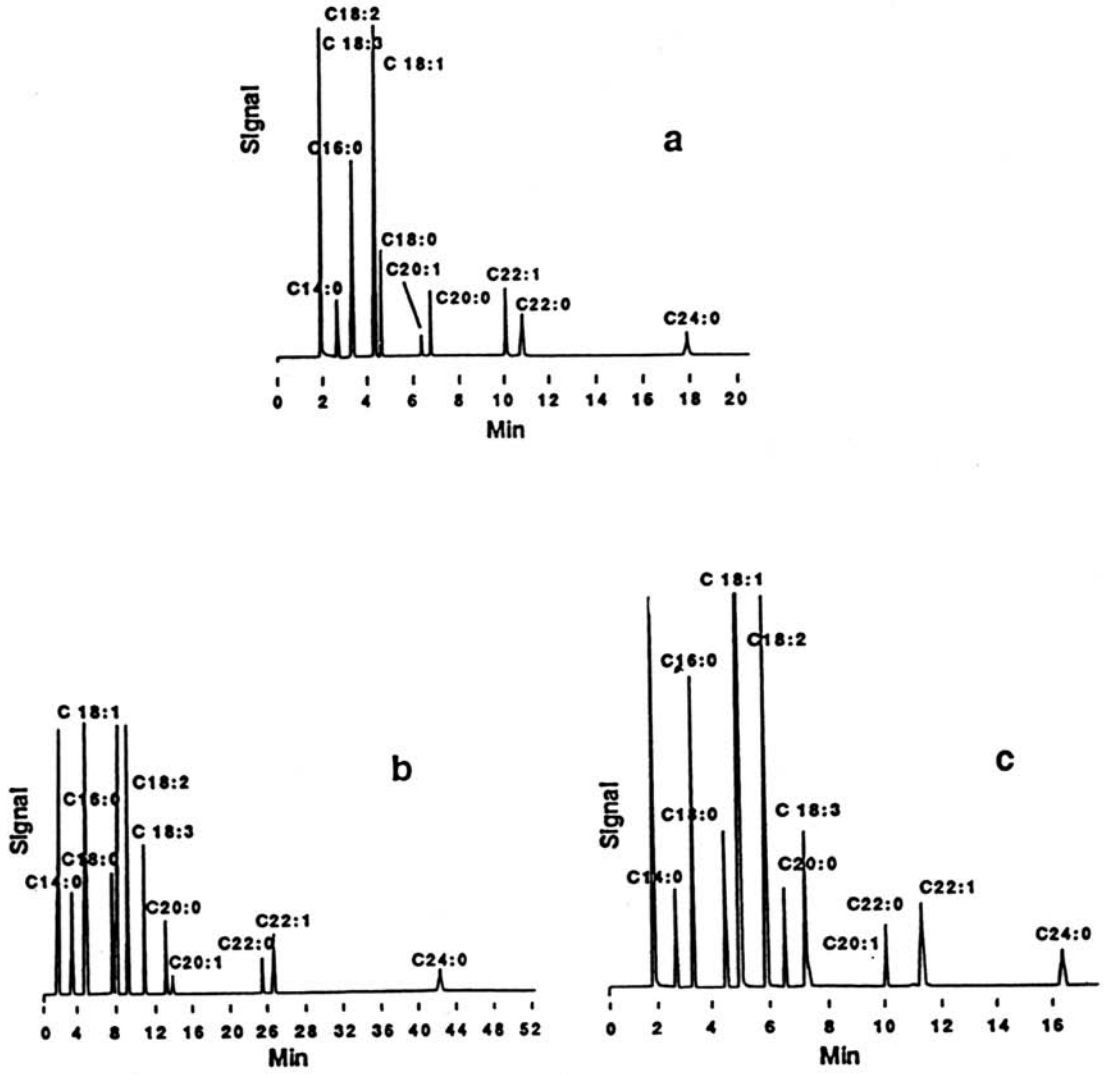
Polar capillary GC profiles of the saturated long chain-length (band 1) and the short-chain *cis*-monoene (b triacylglycerol fractions isolated from R-4 butterfat distillate by silver ion TLC [135]. Inset; 15% $AgNO_3$-TLC resolution distillate in chloroform plus 0.75% ethanol. Peak identification (band 1): 7, 8–14–14 + 8–12–16 + 10–14–12; 8, 6–14–16 + 18; 14, 10–14–14 + 10–12–16; 15, 8–14–16 + 8–12–18; 16, 6–16–16 + 6–14–18; 21, 10–14–16 + 12–14–14; 22, 8–16–16 + 8- 23, 6–16–18; 29, 10–16–16 + 10–14–18; 30, 8–16–18; 35, 10–16–18 + 12–16–16 + 14–14–16; 40, 14–16–16; 40, 14–16– 16–16–16; 45, 16–16–18. Peak identification (Band 5): 6, 12–18:1–6 + 14–16:1–4; 12, 12–18:1–6 + 14–16:1–6; 13, 14–18:1– 16:1–4; 20, 18:1–14–8 + 12–16:1–10; 21, 18:1–16–4 + 16:1–18–4; 27, 18:1–14–8 + 16:1–14–10; 28, 18:1–16–6; 29, 18:1–18 10–18:1–14 + 12–16:1–14; 35, 18:1–16–8; 38, 10–18:1–16; 41, 16–18:1–12 + 14–14–18:1; 44, 14–16–18:1; 46, 16–16–18 conditions: column, flexible quartz capillary (25 m × 0.25 mm I.D., RSL-300 custom made); carrier gas, H_2; on-column in temp. 40°C, then ballistically heated to 290°C, then at 10°C/min to 330°C and then at 2°C/min to 350°C.





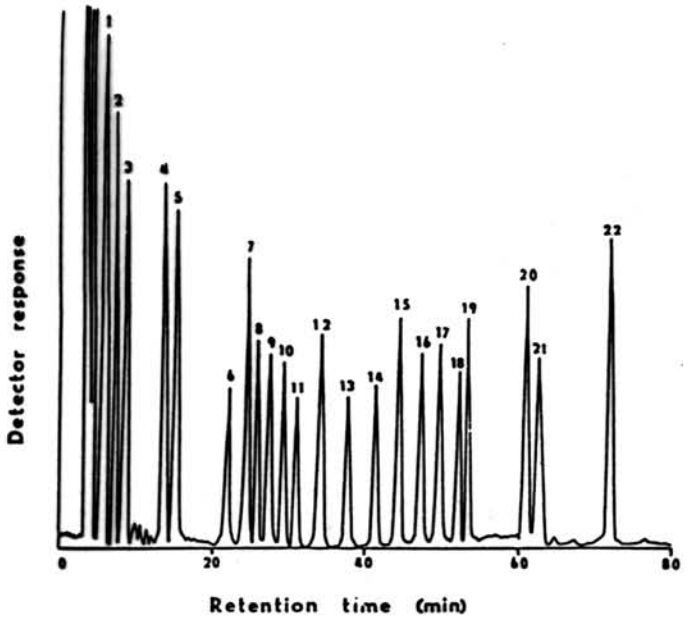
Kapilární GC na polarizovatelné kapalné fázi – celkový profil plazmatických lipidů hyperlipidemických potkanů.

Plasma total lipid profile as obtained for a hyperlipidemic adult male in the fasting state (lower panel) by automated capillary GC on a polarizable liquid phase [132]. Upper panel, summary of sample preparation: TMSCl, trimethylchlorosilane; HMDS, hexamethyldisilazane. Peak identification: Chol, free cholesterol (as TMS ether); 30:0 tridecanoylglycerol (internal standard); D18:1–16:0, palmitoylsphingosine moiety of plasma sphingomyelin (as di-TMS ether); 16:0–18:1, 16:0–18:2, 18:0–18:1, 18:0–18:2, and 18:0–20:4, major diacylglycerol moieties of plasma phosphatidylcholine (as TMS ethers); CE 16:0, cholesteryl palmitate; CE 16:1, cholesteryl palmitoleate; CE 18:1, cholesteryl oleate; CE 18:2, cholesteryl linoleate; PMO to OOL, triacylglycerols made up of myristic (M), palmitic (P), oleic (O), palmitoleic (P′), linoleic (L) and stearic (S) acids. Column, fused-silica capillary (25 m × 0.25 mm I.D.) coated with methyl 65% phenylsilicone (OV-22); carrier gas, H_2; temperature program as given in figure. *y*-Axis: full scale deflection corresponds to $1 \cdot 10^{-6}$ A. *x*-Axis: retention time. OOO was eluted in 37 min. Reproduced with permission of *Journal of Lipid Research*.



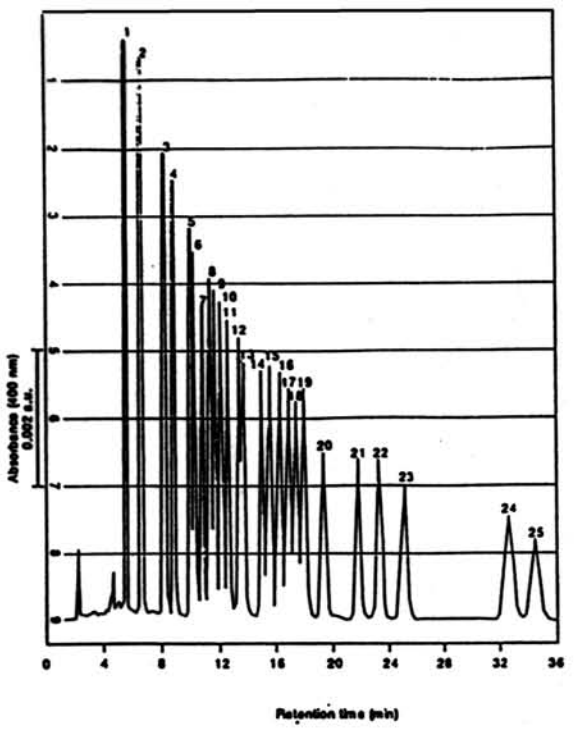
Dělení matných kyselin (esterů) pomocí GC na (a) nepolárních, (b) středně polárních a (c) vysoce polárních stacionárních fázích.

Selectivities of (a) nonpolar (SPB-1), (b) moderately polar (Omegawax 320), and (c) highly polar (SP-2380) GC stationary phases for the analysis of FAMEs derived from rapeseed oil standard. The analyses were performed isothermally at column tempertures of (a) 240°C, (b) 200°C, and (c) 180°C. All columns were 30 m long with an internal diameter of 0.32 mm and a stationary-phase film thickness of 0.20 μm (SP-2380 or 0.25 μm. Helium carrier gas was used at a linear velocity of 25 cm/s. Detection was by flame ionization.



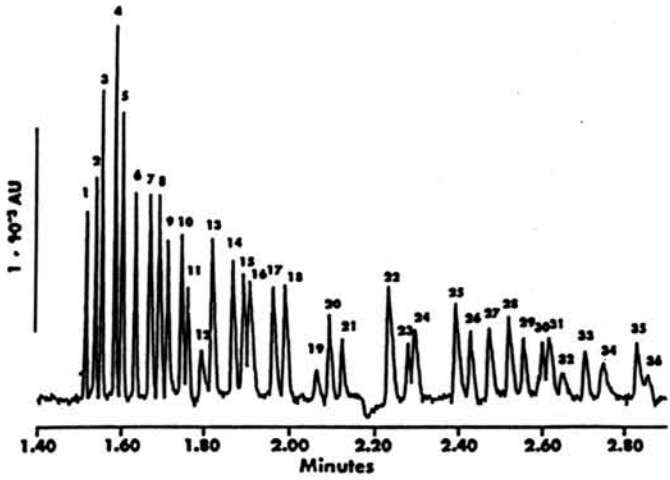
HPLC směsi fenacyl esterů mastných kyselin.

Elution by ternary gradient methanol–acetonitrile–water at a flow-rate 1 ml/min on Separon SGX C18 column (250 × 4 mm I.D., 5 μm), temperature 40°C. Peaks: 1 - 6:0; 2 - 8:0; 3 - 10:0; 4 - 12:0; 5 - 14:1; 6 - 18:3; 7 - 14:0; 8 - 22:6; 9 - 16:1; 10 - 20:4; 11 - 18:2 *cis,cis*; 12 - 15:1, 13 - 18:2 *trans,trans*; 14 - 20:3; 15 - 16:0; 16 - 18:1 *cis*; 17 - 18:1 *trans*; 18 - 20:2; 19 - 17:0; 20 - 18:0; 21 - 20:1; 22 - 22:1.

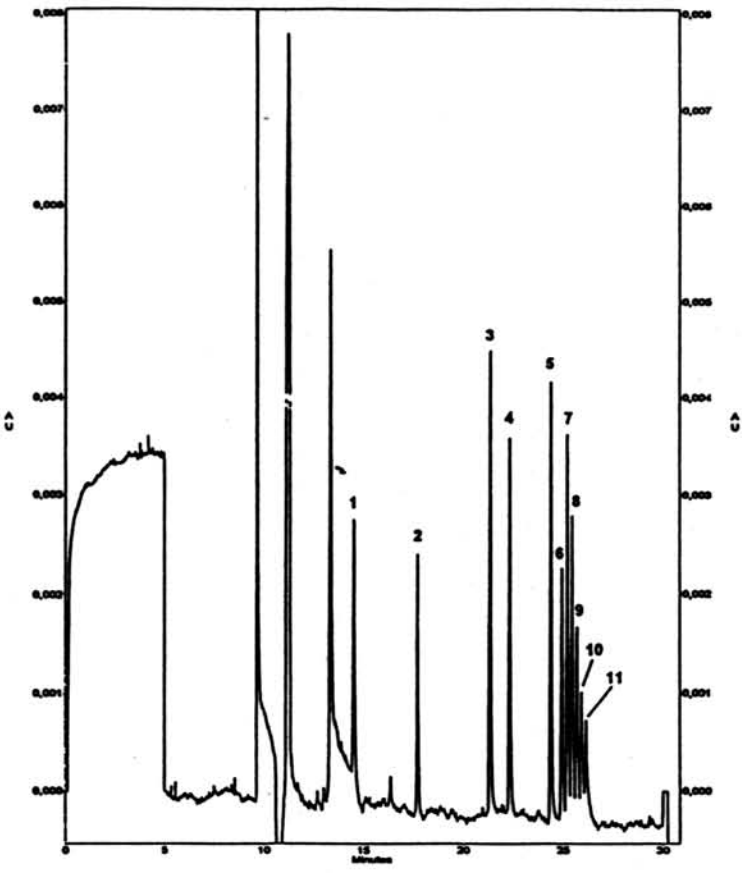


HPLC 2-nitrofenylhydrazidů 25 mastných kyselin.

HPLC conditions: isocratic elution with acetonitrile–methanol–water (75:11:14, v/v/v) at a flow-rate 1.2 ml/min on a YMC-FA (C8) column (250 × 6 mm I.D.), detection at 400 nm. Peaks: 1 - octanoic (8:0), 2 - decanoic (10:0), 3 - dodecanoic (12:0), 4 - *cis*-9-tetradecenoic (14:1), 5 - *cis*-5,8,11,14, 17-eicosapentaenoic (20:5), 6 - *cis*-9,12,15-octadecatrienoic (18:3), 7 - tetradecanoic (14:0), 8 - *cis*-4,7,10,13,16, 19-docosahexaenoic (22:6), 9 - *cis*-9-hexadecenoic (16:1), 10 - *cis*-5,8,11,14-eicosatetraenoic (20:0), 11 - *cis*-9, 12-octadecadienoic (18:2, *cis,cis*), 12 - *trans*-9, 12-octadecadienoic (18:0, *trans,trans*), 13 - *cis*-8,11,14-eicosatrienoic (20:3), 14 - hexadecanoic (16:0), 15 - *cis*-7,10,13,16-docosatetraenoic (22:4), 16 - *cis*-9-octadecenoic (18:1, *cis*), 17 - *trans*-9-octadecenoic (18:1, *trans*), 18 - *cis*-11,14-eicosadienoic (20:2), 19 - heptadecanoic (17:0), 20 - *cis*-13,16,19-docosatrienoic (20: 3), 21 - octadecanoic (18:0), 22 - *cis*-11-eicosaenoic (20:1), 23 - *cis*-13,16-docosadienoic (22:2), 24 - eicosanoic (20:0), 25 - *cis*-13-docosaenoic (22:1) acid hydrazide.



Kapilární elektroforéza 36 aniontů. Peaks concentrations [ppm]: 1 - thiosulfate [1.3]; 2 - bromide [1.3]; 3 - chloride [0.7]; 4 - sulfate [1.3]; 5 - nitrite [1.3]; 6 - nitrate [1.3]; 7 - molybdate [3.3]; 8 - azide [1.3]; 9 - tungstate [3.3]; 10 - monofluorophosphate [1.3]; 11 - chlorate [1.3]; 12 - citrate [0.7]; 13 - fluoride [0.3]; 14 - formate [0.7]; 15 - phosphate [1.3]; 16 - phosphite [1.3]; 17 - chlorite [1.3]; 18 - glutarate [1.7]; 19 - *o*-phthalate [0.7]; 20 - galactarate [1.3]; 21 - carbonate [1.3]; 22 - acetate [1.3]; 23 - chloroacetate [0.7]; 24 - ethanesulfonate [1.3]; 25 - propionate [1.3]; 26 - propanesulfonate [1.3]; 27 - *dl*-aspartate [1.3]; 28 - crotonate [1.3]; 29 - butyrate [1.3]; 30 - butanesulfonate [1.3]; 31 - valerate [1.3]; 32 - benzoate [1.3]; 33 - *l*-glutamate [1.3]; 34 - pentanesulfonate [1.7]; 35 - *d*-gluconate [1.7]; 36 - *d*-galacturonate [1.7]. The electrolyte was 5 mM chromate and 0.4 mM OFM Anion-BT adjusted to pH 8.0. Capillary: 60 cm (52 cm to detector) × 50 μm fused silica; 30 kV (negative polarity); nepřímá detekce.



Dělení fenacyl esterů mastných kyselin pomocí mikroemulzní elektrokinetické chromatografie. Conditions: untreated fused silica capillary 57 cm (50 to the detector) × 75 μm capillary, buffer: 10 mM borate buffer (87.93%, w/w), cholate (4.87%), heptane (0.66%) and *n*-butanol (6.55%) (pH 10.2), run at 15 kV and 30°C, monitored by diode-array detector at 243 nm (auto zero at 5 min).

Peak identification: 1=acetic acid, 2=butyric acid, 3=benzoic acid, 4=caproic acid, 5=caprylic acid, 6=capric acid, 7=lauric acid, 8=myristic acid, 9=palmitic acid, 10=steric acid and 11=arachidic acid.