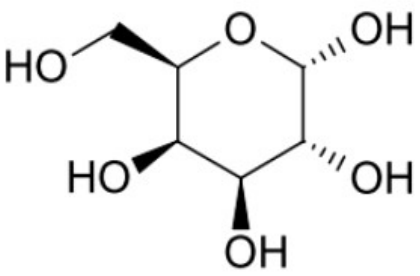
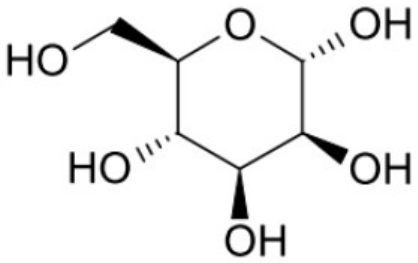
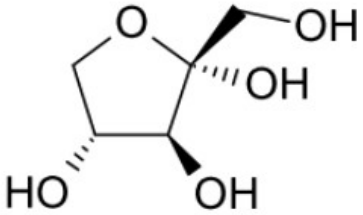


Galaktose



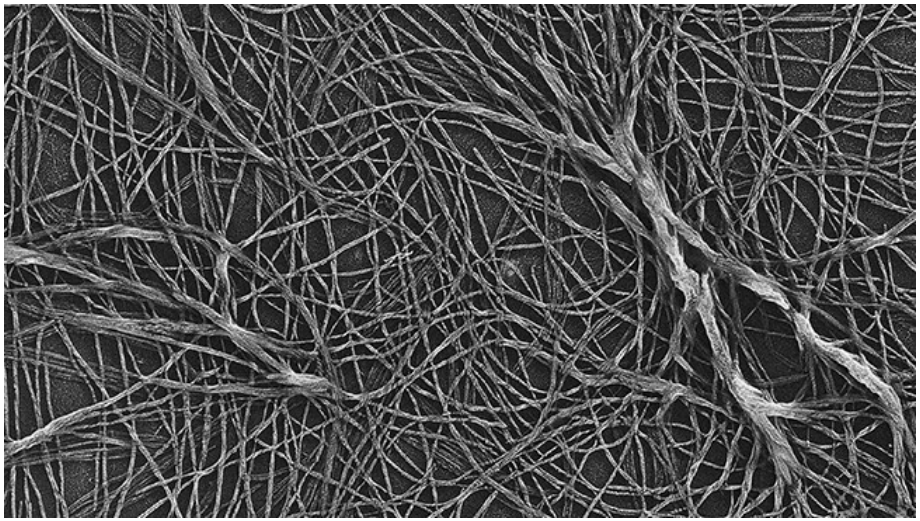
Mannose



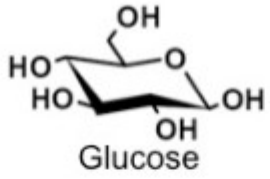
Xylose

Zucker im Boden

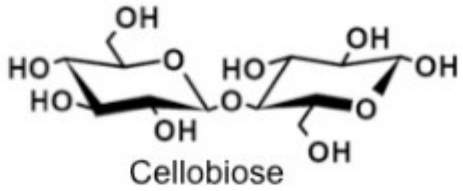
Cellulose



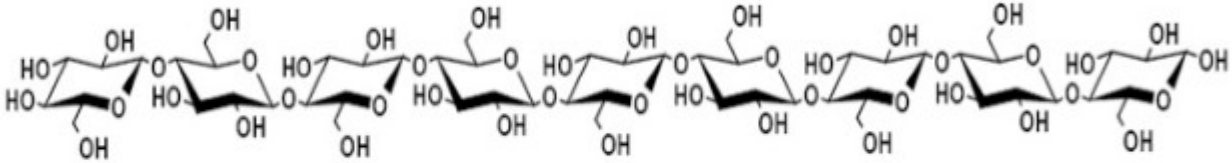
β-(1-4) Glukosepolymer

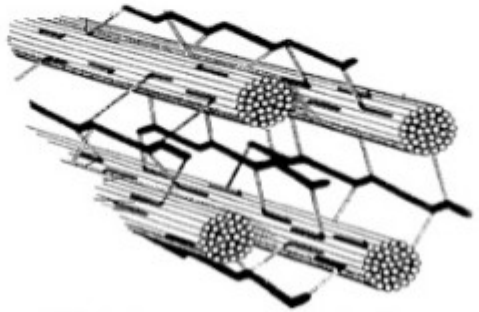


Glucose

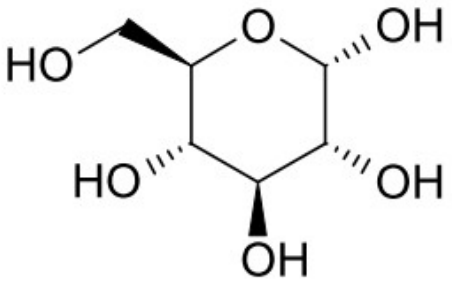


Cellobiose

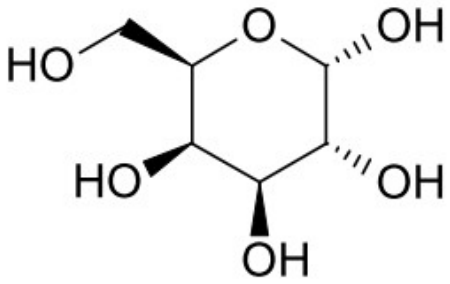

Cellulose chains can exceed 10,000 monomer units


36 chains associate to form
microfibrils that stabilize the cell wall

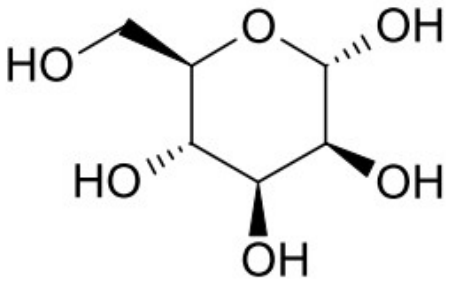
Hemicelluose



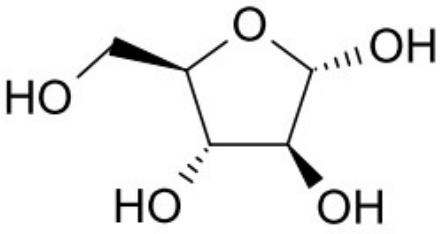
Glukose



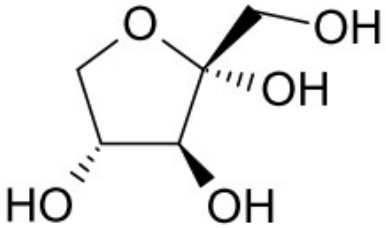
Galaktose



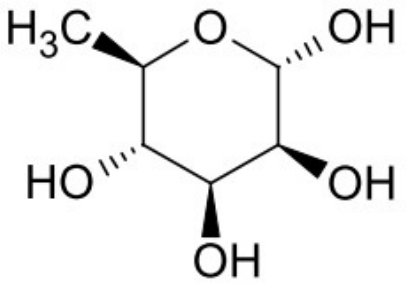
Mannose



Arabinose

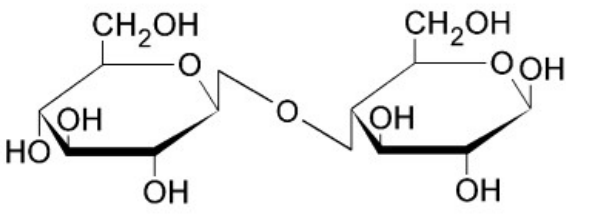


Xylose

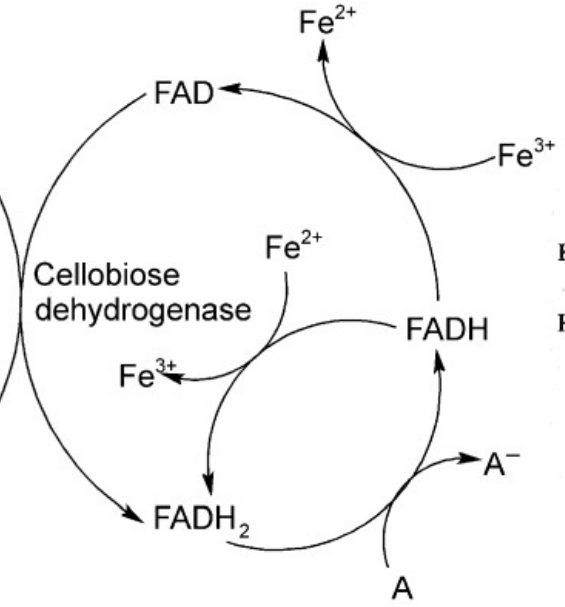


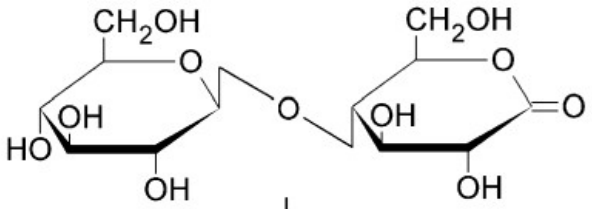
Rhamnose

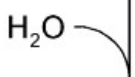
Abbau von Zellulose

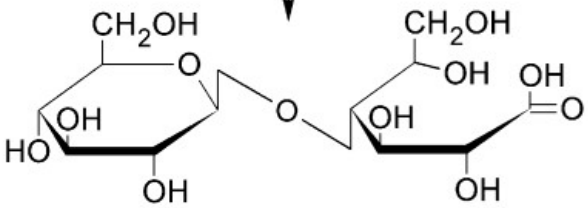


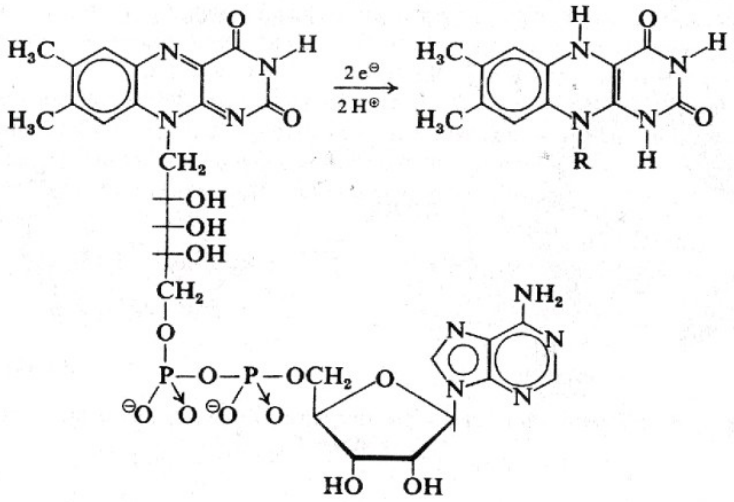
Cellobiose











FAD, Flavin adenine dinucleotide, oxidized and reduced forms

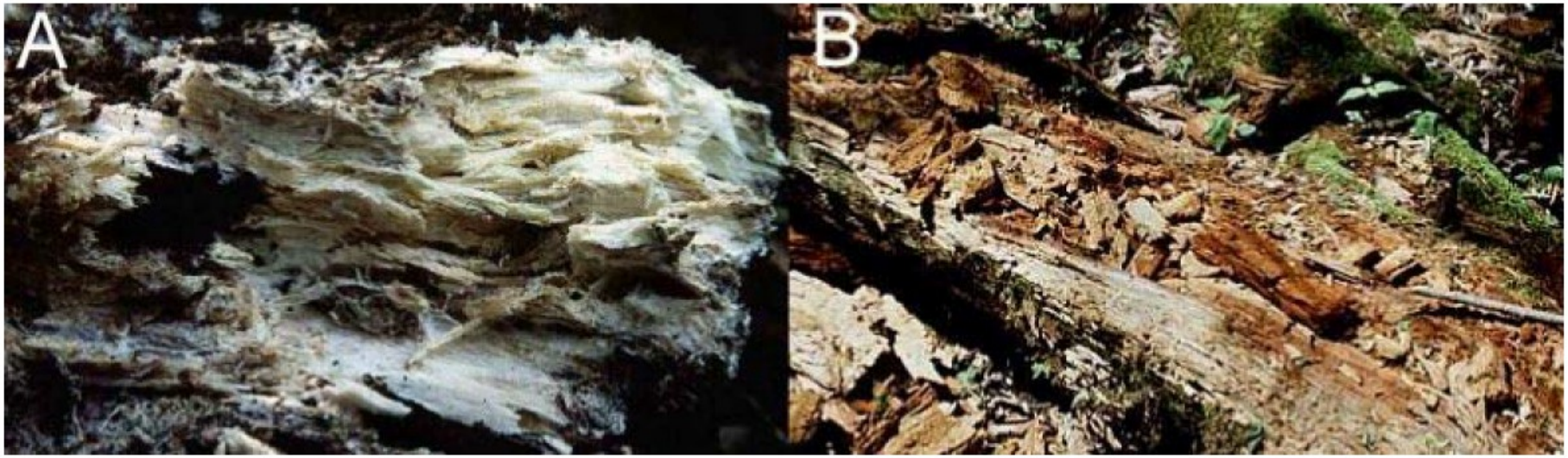
Part of the degradation of lignin is carried out through non-enzymatic processes. In one of these, the so-called hydroxyl radical plays an important part. Although not all steps in lignin degradation are understood, we mention the concept here.

When oxygen is reduced, hydrogen peroxide is formed, which in its turn is split in a reaction. Below we have given a general chemical reaction. So far it is not known how fungi carry out the reaction.

$$Fe^{2+} + H_2O_2 \rightarrow Fe^{3+} + OH^- + {}^{\bullet}OH$$

It seems clear, though, that the highly mobile radical ($^{\bullet}OH$) is produced by fungal enzymes, among others, a cellobiase oxidase and laccase. Hydroxyl radicals may cause an oxidation of lignin to quinines.

Weißfäulepilze (*Phanerochaete chrysosporium*)



Braunfäulepilze (*Ganoderma lucidum*)

Chinon-Redoxkreisläufe

Fenton Reaktion

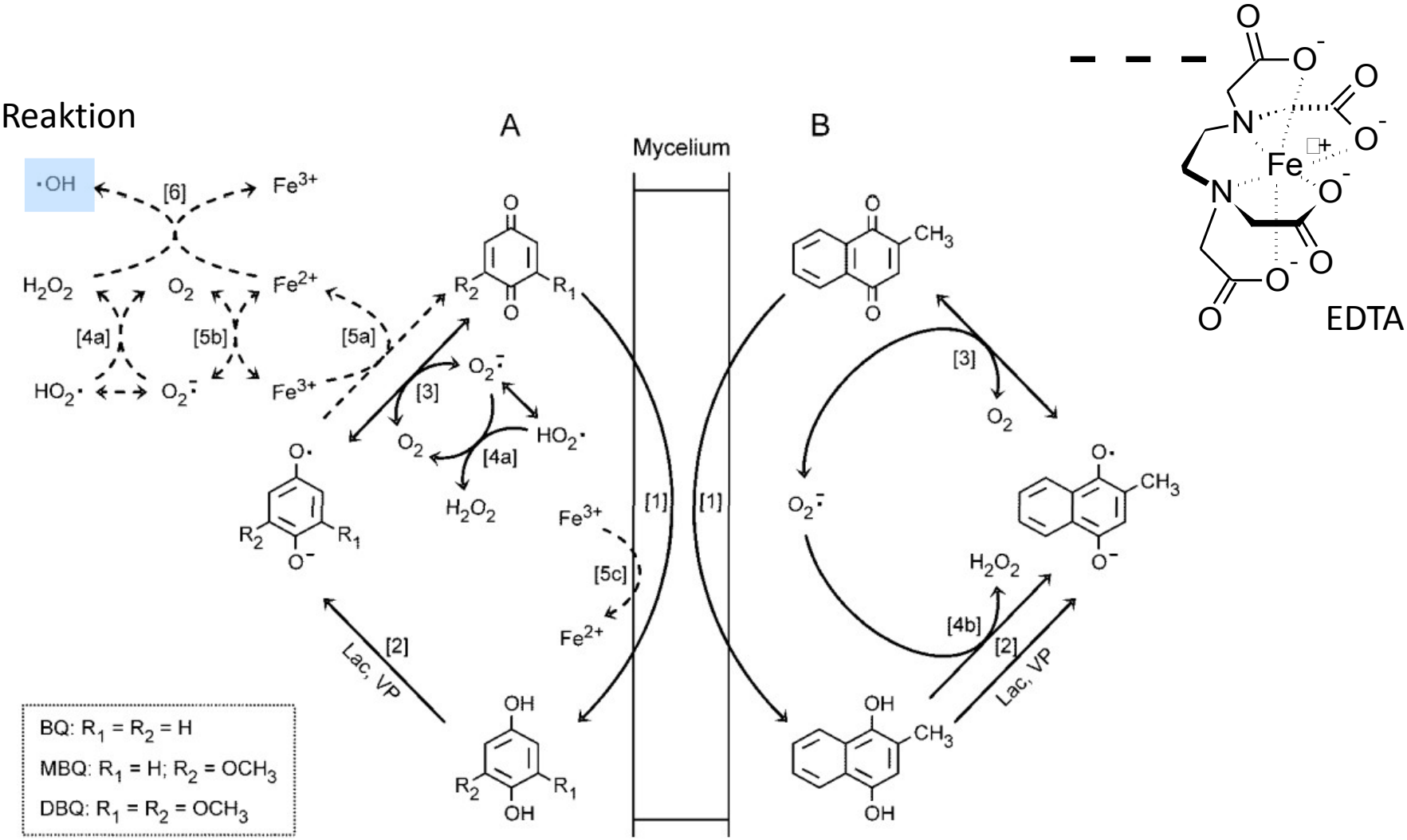
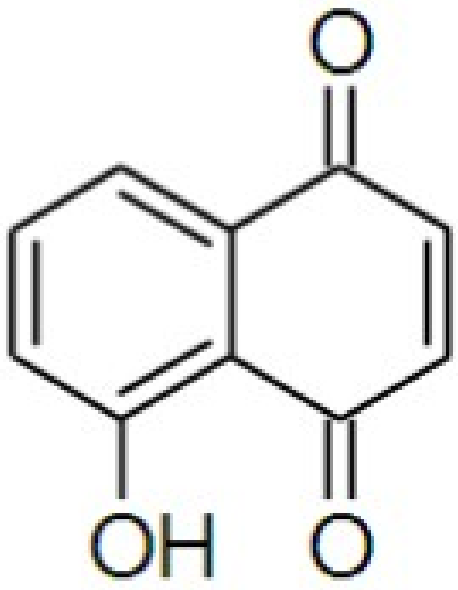


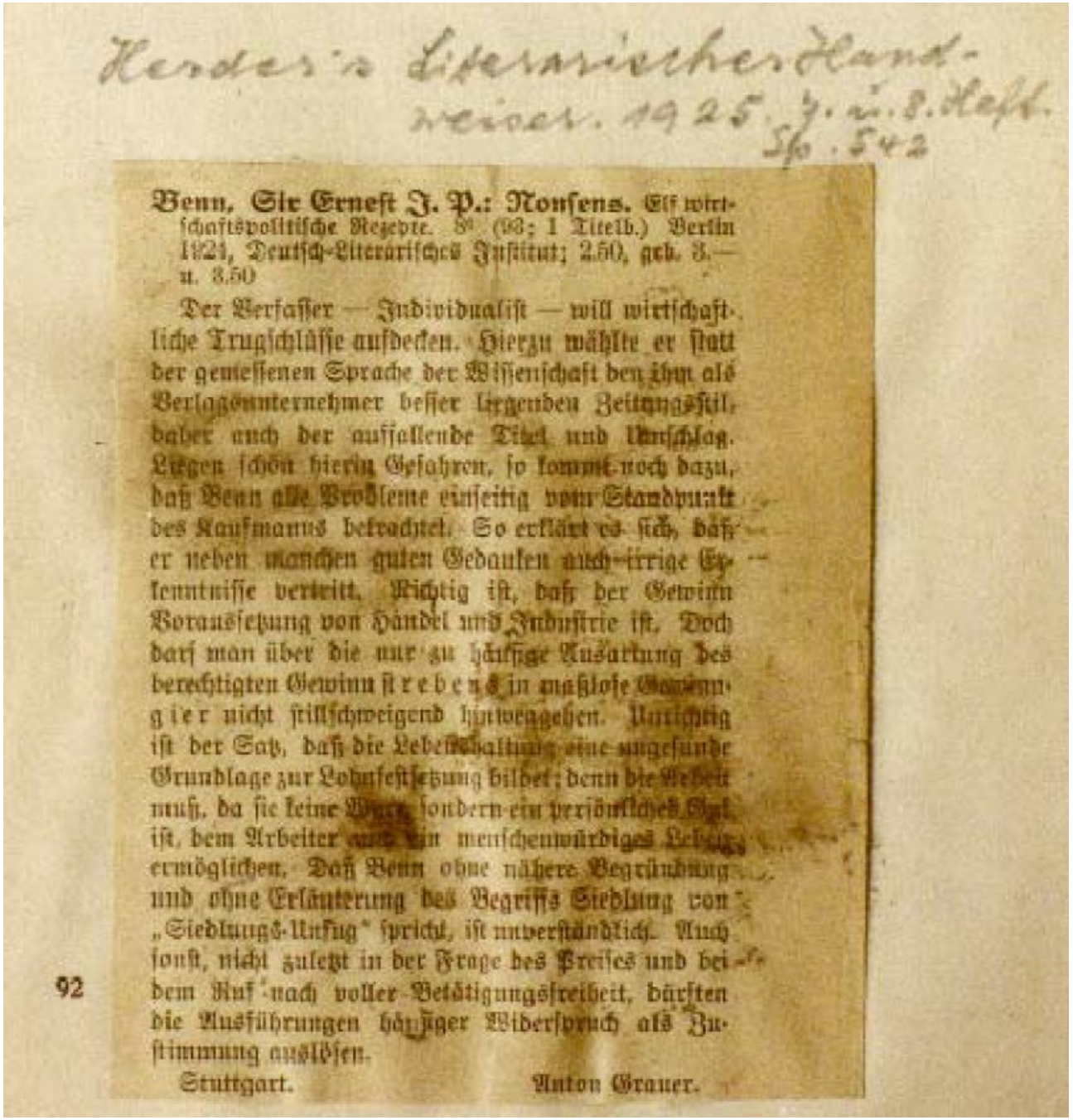
FIG. 8. Scheme of the quinone redox cycling process in *P. eryngii* (see Discussion for an explanation). (A) Main reactions involved in ROS production through BQ, MBQ, and DBQ redox cycling in the absence and presence of Fe^{3+}-EDTA (solid and dashed arrows, respectively). (B) MD redox cycling, showing hydroquinone propagation by $O_2^{\cdot -}$. Reversible reactions are indicated by double arrows.

Nuss-Schnaps



Juglon

Pilze erzeugen Stockflecken auf Papier



Herder's Literarischer Handweiser. 1925. 7. u. 8. Heft. Sp. 542

Benn, Sir Ernest J. P.: Nonsens. Elf wirtschaftspolitische Rezepte. 8° (93; 1 Titelb.) Berlin 1924, Deutsch-Literarisches Institut; 2.50, geb. 3.— u. 3.50

Der Verfasser — Individualist — will wirtschaftliche Trugschlüsse aufdecken. Hierzu wählte er statt der gemessenen Sprache der Wissenschaft den ihm als Verlagsunternehmer besser liegenden Zeitungsstil, daher auch der auffallende Titel und Umschlag. Liegen schon hierin Gefahren, so kommt noch dazu, daß Benn alle Probleme einseitig vom Standpunkt des Kaufmanns betrachtet. So erklärt es sich, daß er neben manchen guten Gedanken auch irrige Erkenntnisse vertritt. Richtig ist, daß der Gewinn Voraussetzung von Handel und Industrie ist. Doch darf man über die nur zu häufige Ausartung des berechtigten Gewinn s t r e b e n s in maßlose Gewinn g i e r nicht stillschweigend hinweggehen. Unrichtig ist der Satz, daß die Lebenshaltung eine ungesunde Grundlage zur Lohnfestsetzung bildet; denn die Arbeit muß, da sie keine Ware, sondern ein persönliches Gut ist, dem Arbeiter auch ein menschenwürdiges Leben ermöglichen. Daß Benn ohne nähere Begründung und ohne Erläuterung des Begriffs Siedlung von „Siedlungs-Unfug" spricht, ist unverständlich. Auch sonst, nicht zuletzt in der Frage des Preises und bei dem Ruf nach voller Betätigungsfreiheit, dürften die Ausführungen häufiger Widerspruch als Zustimmung auslösen.

Stuttgart. Anton Grauer.

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Ligninabbau durch Bakterien

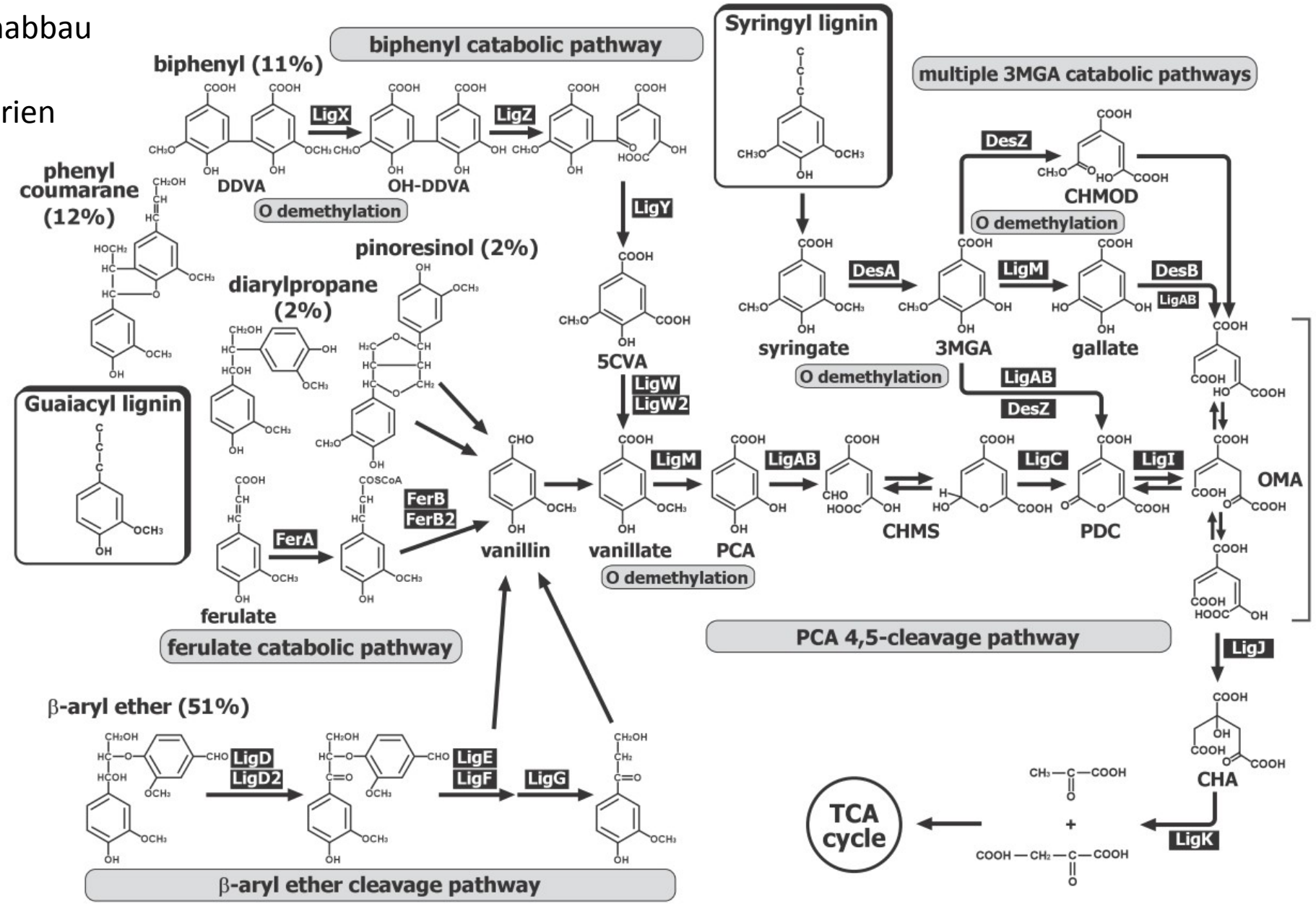
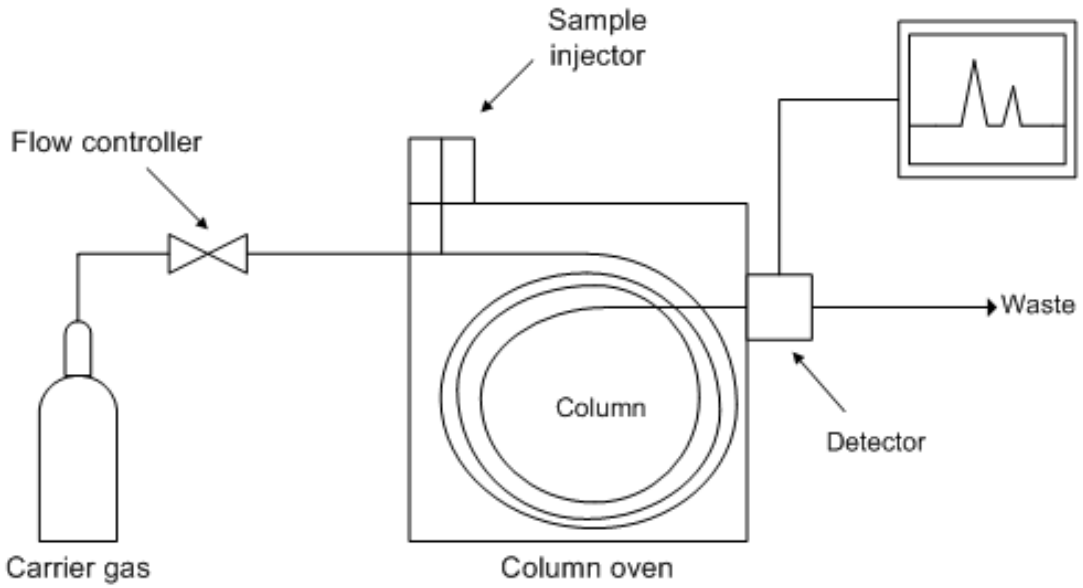


Fig. 1. Catabolic Pathways for the Degradation of Lignin-Derived Aromatic Compounds by *S. paucimobilis* SYK-6.

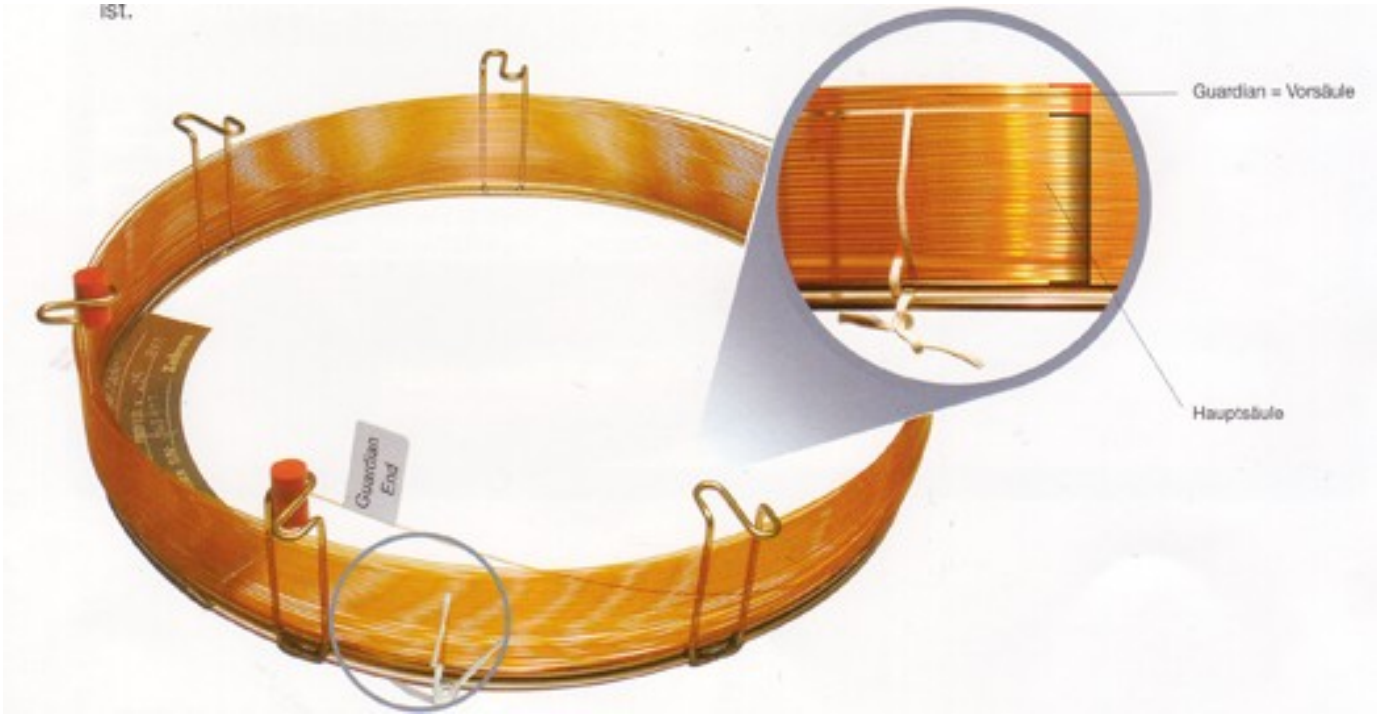
SYK-6 is able to grow on various lignin-derived biaryls and monoaryls *via* the PCA 4,5-cleavage pathway and the multiple 3MGA catabolic pathways. The percentages are the ratios of the intermonomer linkages in native lignin.[101] *Abbreviations*: DDVA, 5,5′-dehydrodivanillate; OH-DDVA, 2,2′,3-trihydroxy-3′-methoxy-5,5′-dicarboxybiphenyl; 5CVA, 5-carboxyvanillate; PCA, protocatechuate; CHMS, 4-carboxy-2-hydroxymuconate-6-semialdehyde; PDC, 2-pyrone-4,6-dicarboxylate; OMA, 4-oxalomesaconate; CHA, 4-carboxy-4-hydroxy-2-oxoadipate; 3MGA, 3-*O*-methylgallate; CHMOD, 4-carboxy-2-hydroxy-6-methoxy-6-oxohexa-2,4-dienoate; TCA, tricarboxylic acid.

Gas Chromatographie (GC)



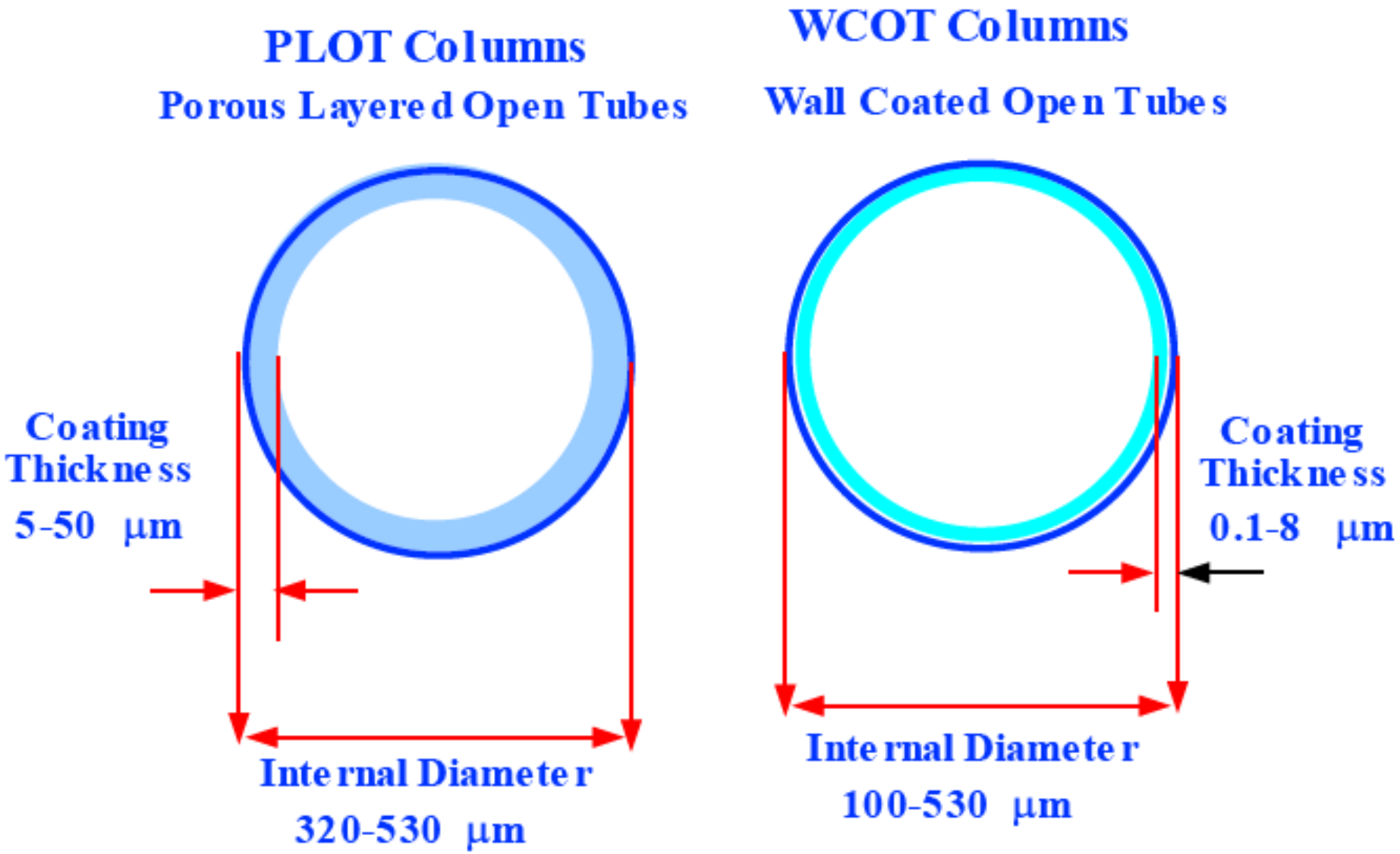
Gas Chromatographie (GC): Säulen

Gepackte Säule



Quarzkapillarsäule

Kapillarsäulen



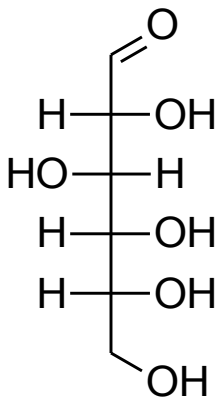
Säulen für Gaschromatographie

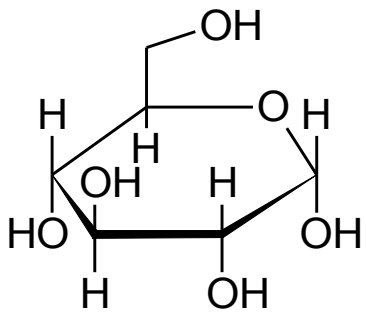
Composition	Phenomenex	Restek	J&W	Supelco	Agilent Technologies (HP)	Alltech	SGE	Varian (Chrompack)	OV
100% dimethyl-polysiloxane	ZEBRON ZB-1	Rtx-1, Rtx-1ms, Rtx-1PONA, Rtx-1 F&F	DB-1, DB-1ms DB-1ht, SE-30, Ultra-1, DB-2887, DB-1EVDX	SPB-1, MDN-1, SPB-1 TG, Equity-1, SPB-1 Sulfur, SPB-HAP	HP-1, HP-1ms, MET-1, HP-101, HP-PONA	AT-1, AT-Sulfur, EC-1	BP1, BP1-PONA, BPX1-SimD	CP-Sil 5 CB, CP-Sil 5 CB MS VF-1ms	OV-1
5%-phenyl-95%-dimethylpoly-siloxane	ZEBRON ZB-5	Rtx-5, Rtx-5ms	DB-5, DB-5ms, DB-5ht, Ultra-2, DB-5.625, SE-54, SE-52, DB-5msEVDX	MDN-5, SPB-5, PTE-5, MDN-5S, HT-5, MDN-12, PTA-5, SAC-5, Equity-5	HP-5, HP-5ms, HP-PAS-5, HP-5 Trace Analysis	AT-5, EC-5	BP 5, BPX 5	CP-Sil 8 CB, CP-Sil 8 CB MS VF-5ms	OV-5
35%-phenyl-65%-dimethyl-polysiloxane	ZEBRON ZB-35	Rtx-35 Rtx-35ms	DB-35, DB-35ms	MDN-35, SPB-35, SPB-608	HP-35, HP-35ms	AT-35	BPX35, BPX608		OV-11
50%-phenyl-50%-dimethyl-polysiloxane	ZEBRON ZB-50	Rtx-50	DB-17, DB-17ht, DB-17ms, DB-17EVDX	SP-2250, SPB-17, SPB-50	HP-50+	AT-50	BPX50	CP-Sil 24 CB	OV-17
6%-cyanopropyl-phenyl-94%-dimethyl-polysiloxane	ZEBRON ZB-624	Rtx-1301, Rtx-624	DB-1301, DB-624, DB-VRX	SPB-1301, SPB-624	HP-VOC	AT-624, AT-1301	BP624	CP-1301 CP-Select-624 CB	
14%-cyanopropyl-phenyl-86%-dimethylpolysiloxane	ZEBRON ZB-1701	Rtx-1701	DB-1701, DB-1701P	SPB-1701, Equity-1701		AT-1701	BP10	CP-Sil 19 CB	OV-1701
Polyethylene glycol	ZEBRON ZB-WAX	Stabilwax, Rtx-Wax, Famewax, Stabilwax-DB	DB-Wax, Carbowax-20M, DB-WAXetr, CAM	Supelcowax 10, Met-Wax, Omegawax, Carbowax Amine	HP-20M, HP-Wax, HP-INNOwax	AT-Wax, EC-Wax	BP20	CP-Wax 52 CB, CP-Wax 57 CB	Carbo-wax 20M
Nitroterephthalic acid modified polyethylene glycol	ZEBRON ZB-FFAP	Stabilwax-DA	DB-FFAP	Nukol, SPB-1000	HP-FFAP	AT-1000, EC-1000	BP21	CP-Wax 58 CB	OV-351

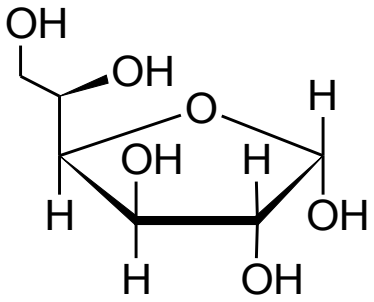
Detectors for gas chromatography

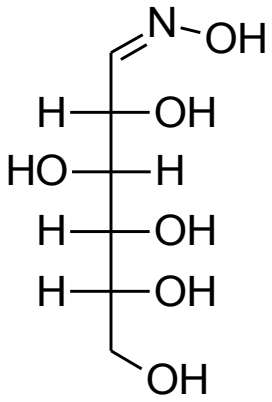
Type	Applicable Samples	Typical Detection Limit
Flame Ionization	Hydrocarbons	1 pg/s
Thermal Conductivity	Universal Detector	500 pg/mL
Electron Capture	Halogenated Compounds	5 fg/s
Mass Spectrometer (MS)	Tunable for any species	0.25 to 100 pg
Thermionic	Nitrogen & Phosphorus compounds	0.1 pg/s (P); 1 pg/s (N)
Electrolytic Conductivity	Compounds containing halogens, sulfur, or nitrogen	0.5 pg Cl/s, 2 pg S/s, 4 pg N/s
Photoionization	Compounds ionized by UV radiation	2 pg C/s
Fourier Transform IR (FTIR)	Organic Compounds	0.2 to 40 ng

Spezielle Derivatisierung von Zuckern für die GC: Oximierung



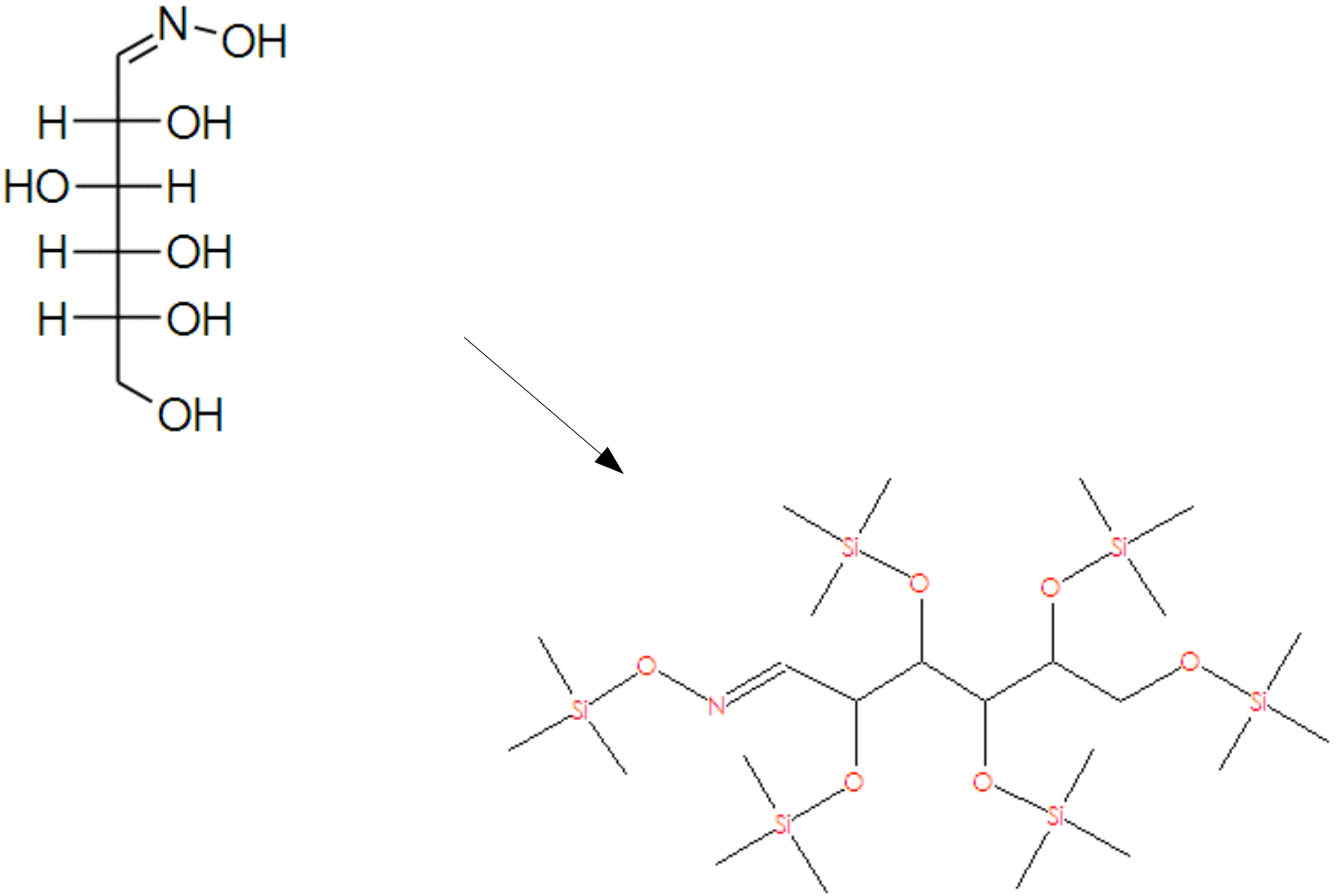




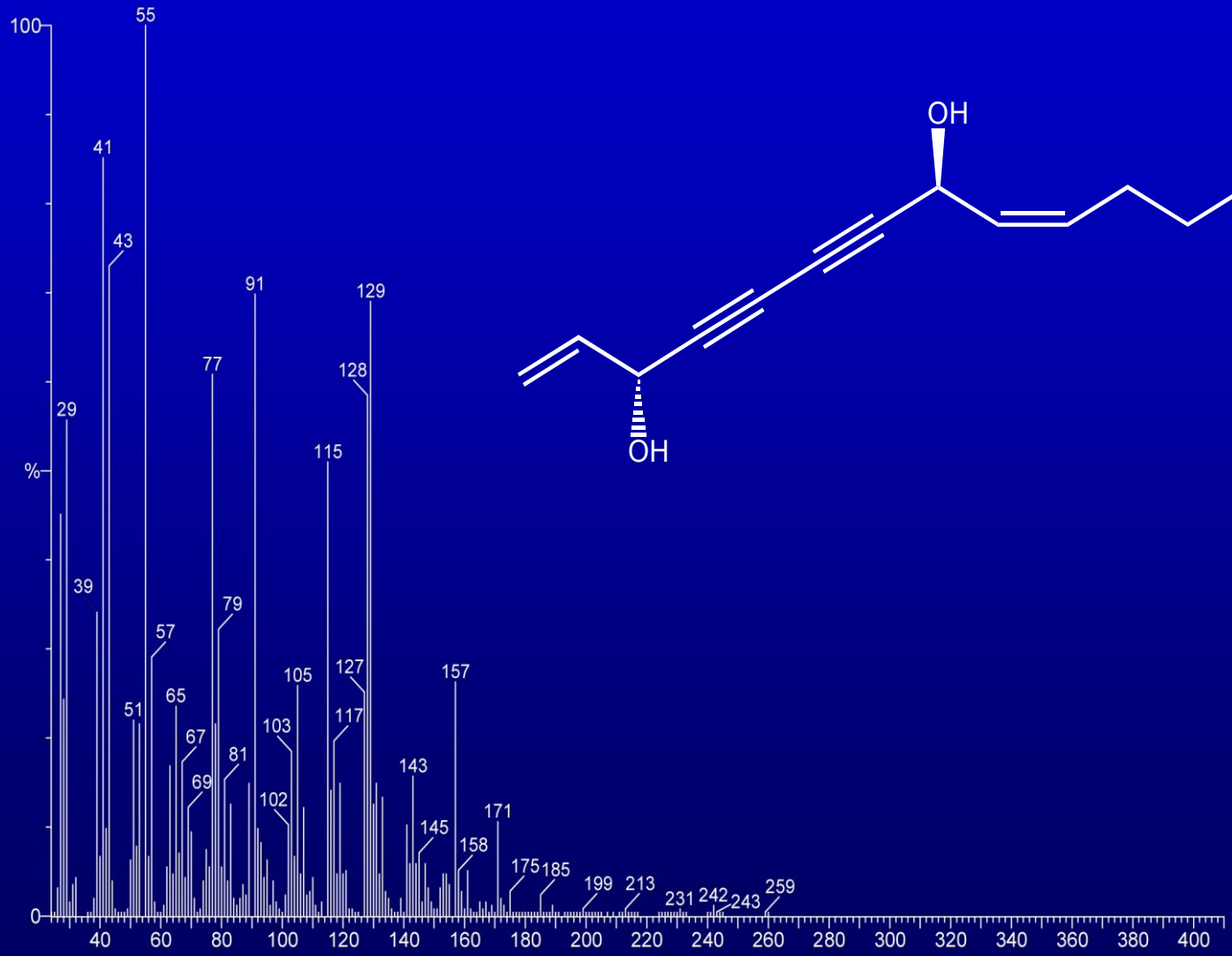


Oximierung reduziert die Anzahl der bei GC Trennungen erhaltenen Peaks.

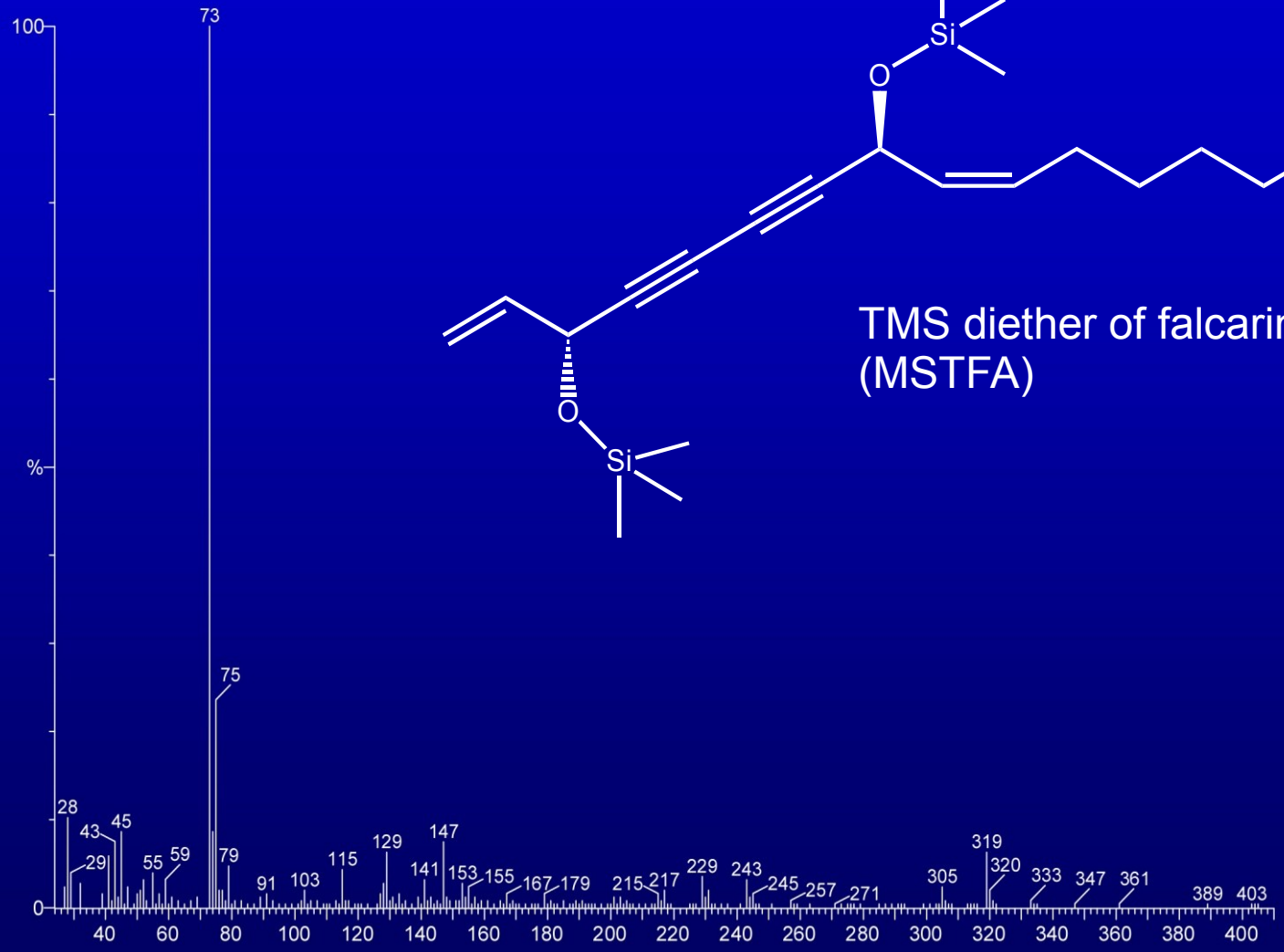
Spezielle Derivatisierung von Zuckern für die GC: Silylierung



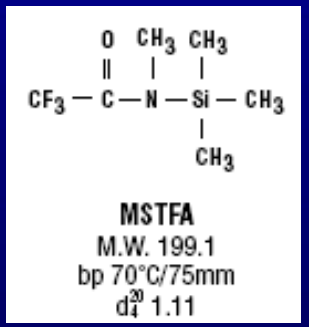
Dervatisation of analytes



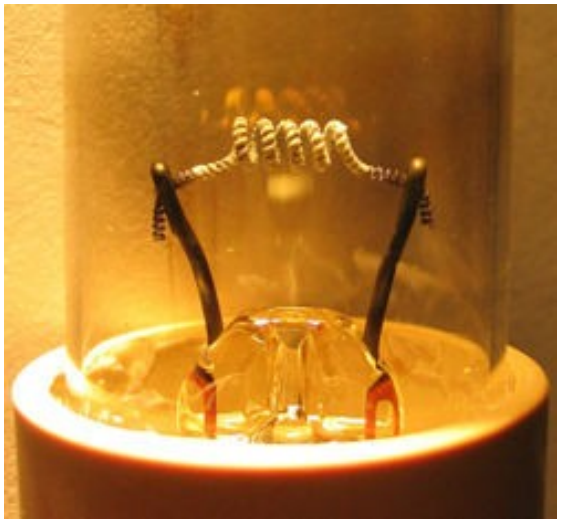
Dervatisation of analytes

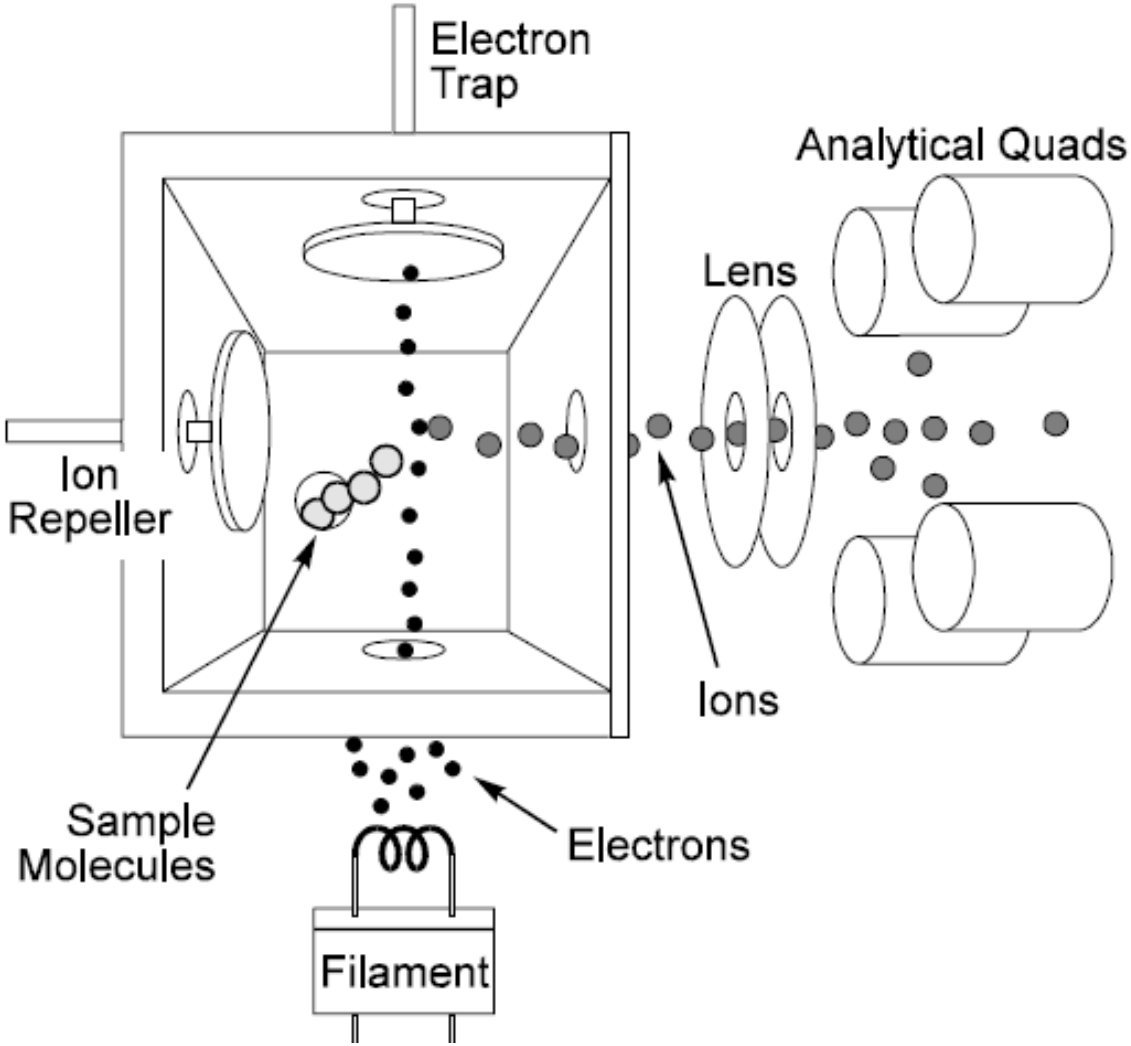


TMS diether of falcarindiol (MSTFA)



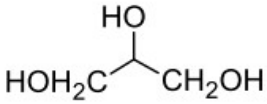
Electron Impact (EI) Ionization





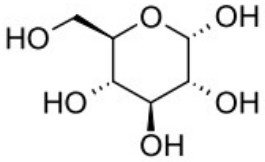
$$M + e^- \longrightarrow M^{+\bullet} + 2e^-$$

Biomarker im Boden

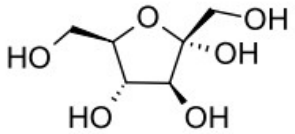


Glycerin

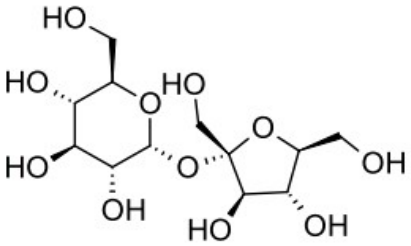
Bakterien



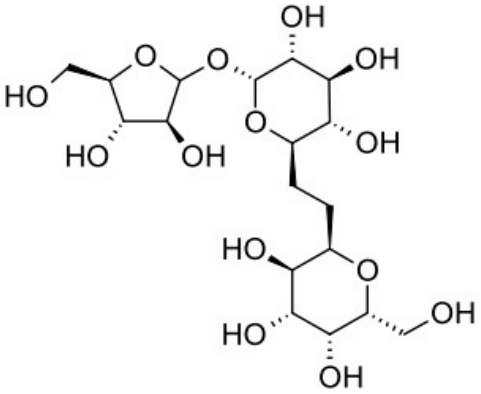
Glucose



Fructose

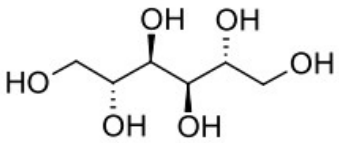


Saccharose

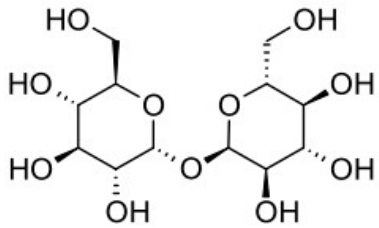


Raffinose

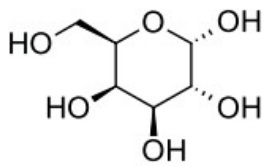
Pflanzen



Mannitol



Trehalose

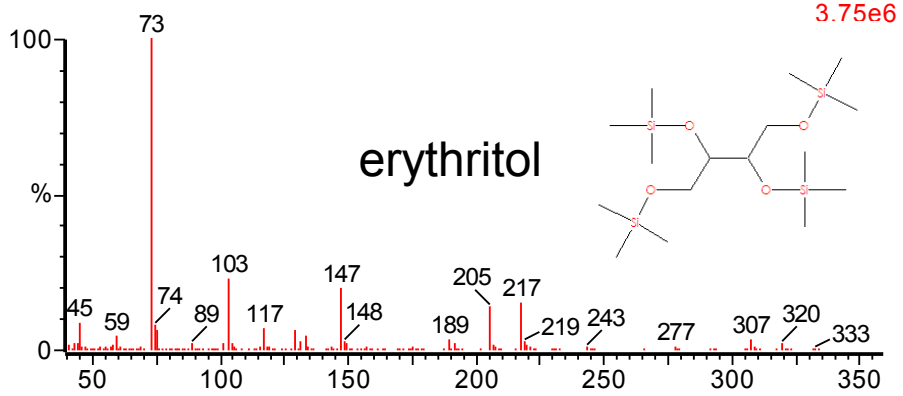


Galaktose

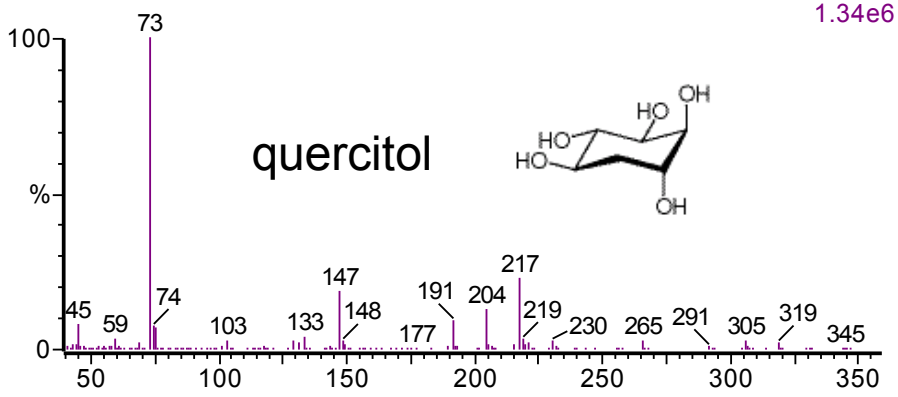
Pilze

Massenspektren der Zucker

Zebron 5, 30 x 0.25 x 0.25
U7 1393 (37.539) Cm (1389:1393-1401:1409)
Scan EI+
3.75e6



Zebron 5, 30 x 0.25 x 0.25
U7 1530 (40.051) Cm (1528:1531-1535:1538)
Scan EI+
1.34e6



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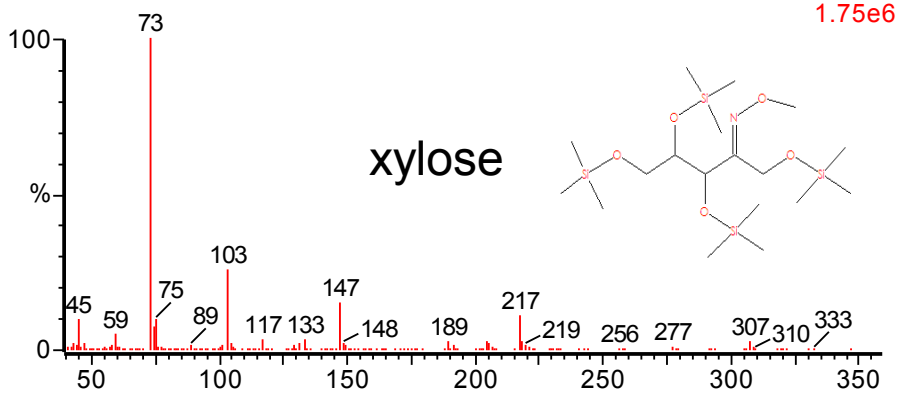
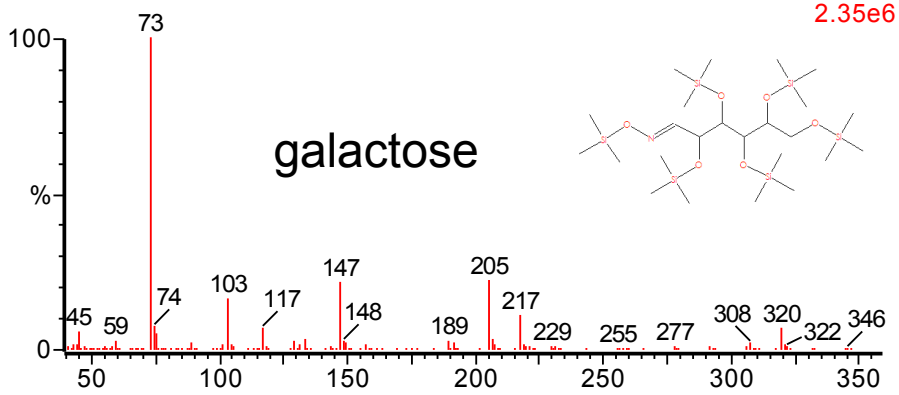
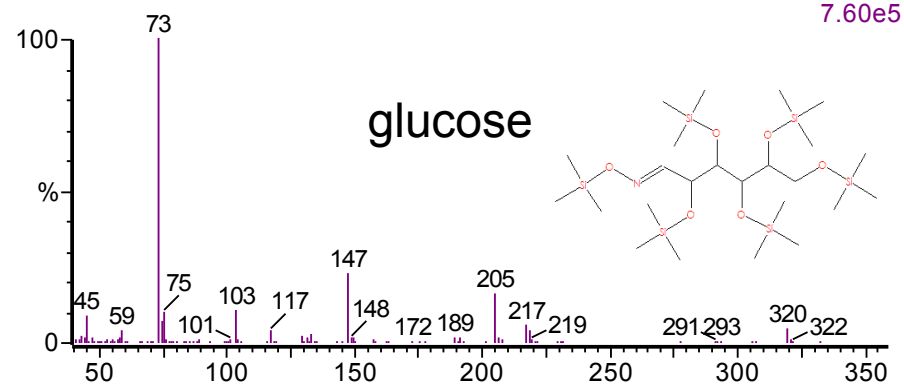
U7 1467 (38.896) Cm (1465:1469-1474:1477)
Scan EI+
1.75e6



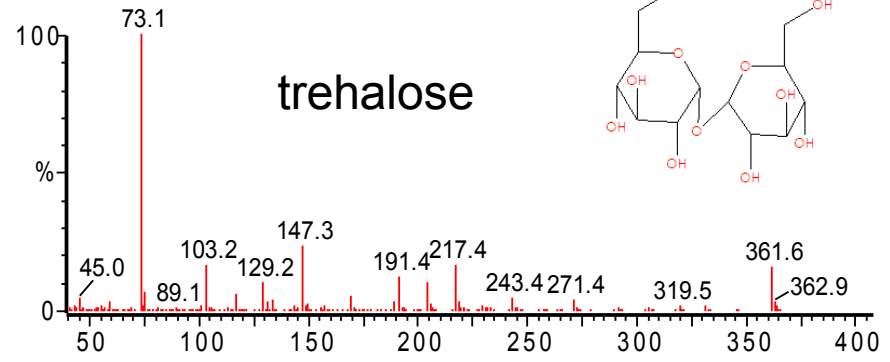
Zebron 5, 30 x 0.25 x 0.25
BL3 1778 (44.598) Cm (1777:1778-1781:1784)
Scan EI+
2.35e6



Zebron 5, 30 x 0.25 x 0.25
BL3 1928 (47.348) Cm (1927:1928-1931:1933)
Scan EI+
7.60e5



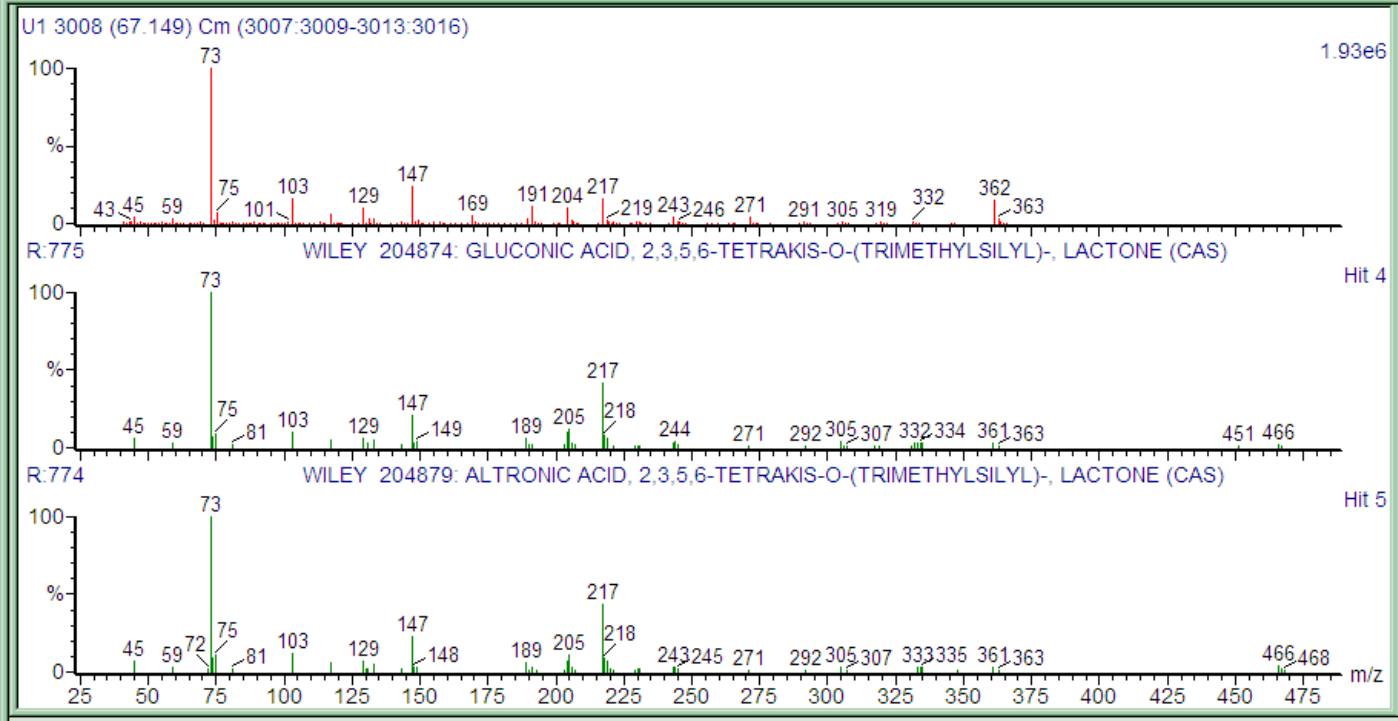
Zebron 5, 30 x 0.25 x 0.25
U1 3008 (67.149) Cm (3006:3009-3013:3018

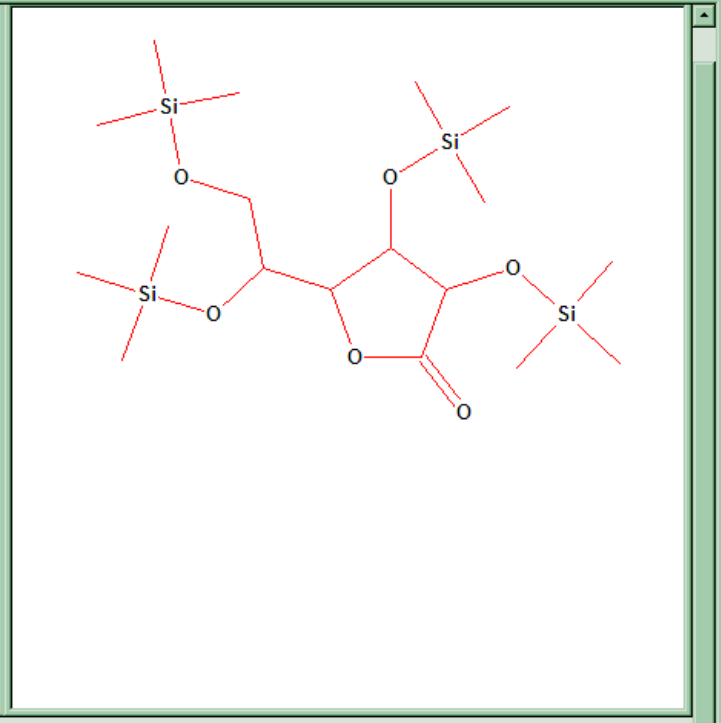


Wiley Library (☹)

Library

File Edit Display Process Window Help

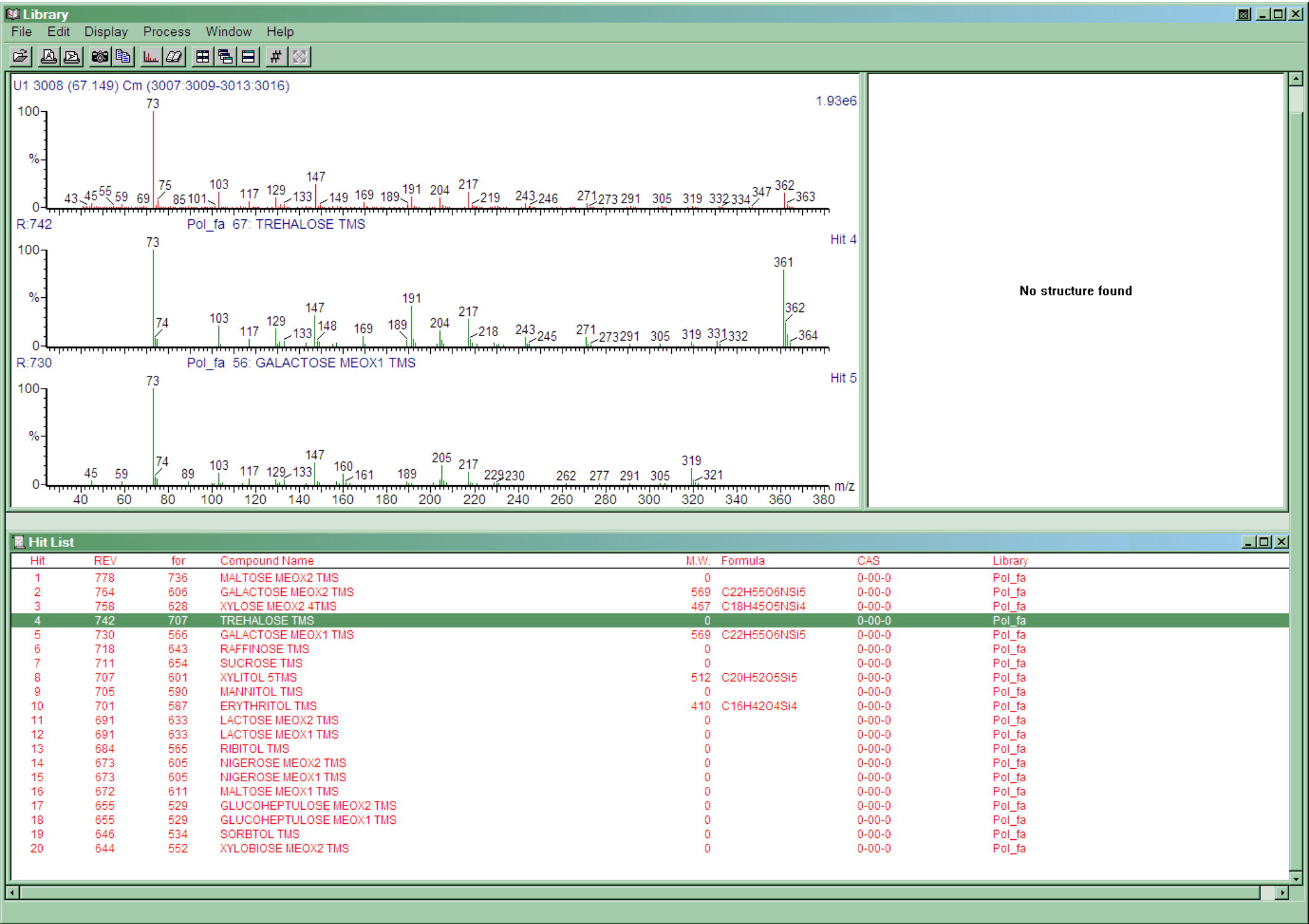




Hit List

Hit	REV	for	Compound Name	M.W.	Formula	CAS	Library
1	808	678	XYLITOL 5TMS $$ XYLITOL, 1,2,3,4,5-PENTAKIS-O-(TRIMETHYLSILYL)- (CAS)	512	C20H52O5Si5	14199-72-5	WILEY
2	786	672	2-DEOXYGALACTOSE PK1 250X10 4-TMS $$ 2-DEOXYGALACTOSE PK2 250X1	452	C18H44O5Si4	0-00-0	WILEY
3	783	712	ALLONIC ACID, 2,3,5,6-TETRAKIS-O-(TRIMETHYLSILYL)-, LACTONE (CAS)	466	C18H42O6Si4	55515-34-9	WILEY
4	775	654	GLUCONIC ACID, 2,3,5,6-TETRAKIS-O-(TRIMETHYLSILYL)-, LACTONE (CAS)	466	C18H42O6Si4	55515-33-8	WILEY
5	774	641	ALTRONIC ACID, 2,3,5,6-TETRAKIS-O-(TRIMETHYLSILYL)-, LACTONE (CAS)	466	C18H42O6Si4	55528-73-9	WILEY
6	772	513	PER(TRIMETHYLSILYL)-L-FUCOSE	452	C18H44O5Si4	0-00-0	WILEY
7	771	622	MYO-INOSITOL, 1,2,3,4,5,6-HEXAKIS-O-(TRIMETHYLSILYL)- (CAS) $$ INOSITOL	612	C24H60O6Si6	2582-79-8	WILEY
8	770	654	MANNOONIC ACID, 2,3,4,6-TETRAKIS-O-(TRIMETHYLSILYL)-, LACTONE (CAS)	466	C18H42O6Si4	55515-28-1	WILEY
9	762	633	SCYLLO-INOSITOL, HEXAKIS-O-(TRIMETHYLSILYL)-	612	C24H60O6Si6	29412-27-9	WILEY
10	757	643	2-FURANACETALDEHYDE, TETRAHYDRO-.ALPHA.,3,4,5-TETRAKIS[(TRIMETHY	466	C18H42O6Si4	74685-70-4	WILEY
11	751	644	LEVOGLUCOSAN TRI-TMS	378	C15H34O5Si3	0-00-0	WILEY
12	750	643	D-XYLOPYRANOSE, 1,2,3,4-TETRAKIS-O-(TRIMETHYLSILYL)- (CAS) $$ XYLOSE	438	C17H42O5Si4	55555-45-8	WILEY
13	749	630	ARABITOL 5TMS $$ ARABINITOL, PENTAKIS-O-(TRIMETHYLSILYL)- (CAS)	512	C20H52O5Si5	25138-28-7	WILEY
14	748	592	MYO-INOSITOL, HEXAKIS-O-(TRIMETHYLSILYL)-	612	C24H60O6Si6	2582-79-8	WILEY
15	748	644	D-GALACTOSE, 2,3,4,5,6-PENTAKIS-O-(TRIMETHYLSILYL)- (CAS) $$ GALACTO	540	C21H52O6Si5	6736-94-3	WILEY
16	746	642	GLUCONIC ACID, 2,3,4,6-TETRAKIS-O-(TRIMETHYLSILYL)-, LACTONE (CAS)	466	C18H42O6Si4	55515-29-2	WILEY
17	746	642	.BETA.-DL-ARABINOPYRANOSE, 1,2,3,4-TETRAKIS-O-(TRIMETHYLSILYL)- (CAS	438	C17H42O5Si4	56271-64-8	WILEY
18	742	619	2-DEOXYGALACTOSE PK1 250X10 4-TMS $$ 2-DEOXYGALACTOSE PK2 250X1	452	C18H44O5Si4	0-00-0	WILEY
19	741	624	ADONITOL 5TMS	512	C20H52O5Si5	32381-53-6	WILEY
20	739	671	D-TURANOSE 7TMS	846	C33H78O11Si7	60065-05-6	WILEY

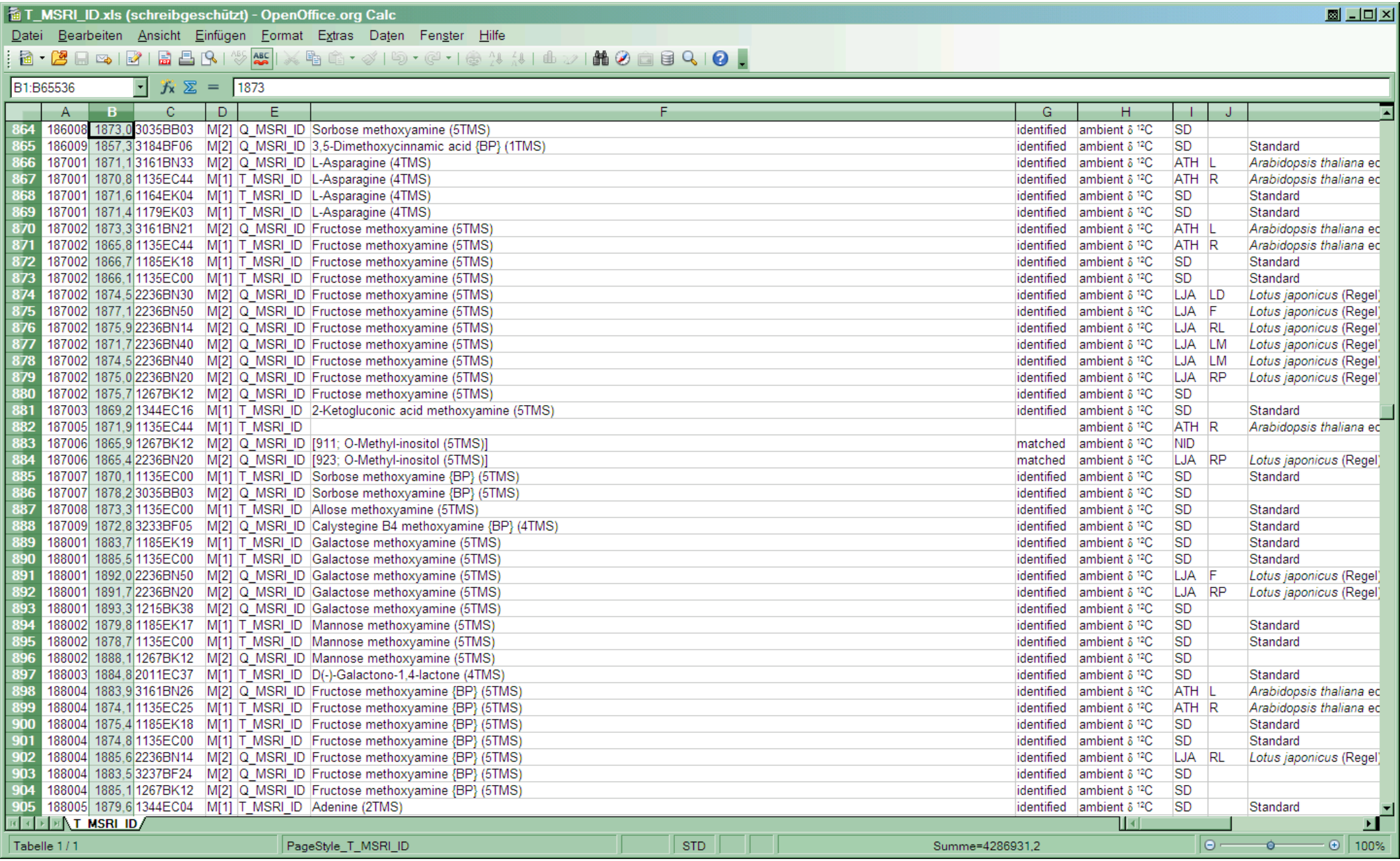
Golm Metabolomics Library (☺)



Hit List

Hit	REV	for	Compound Name	M.W.	Formula	CAS	Library
1	778	736	MALTOSE MEOX2 TMS	0		0-00-0	Pol_fa
2	764	606	GALACTOSE MEOX2 TMS	569	C22H55O6NSi5	0-00-0	Pol_fa
3	758	628	XYLOSE MEOX2 4TMS	467	C18H45O5NSi4	0-00-0	Pol_fa
4	742	707	TREHALOSE TMS	0		0-00-0	Pol_fa
5	730	566	GALACTOSE MEOX1 TMS	569	C22H55O6NSi5	0-00-0	Pol_fa
6	718	643	RAFFINOSE TMS	0		0-00-0	Pol_fa
7	711	654	SUCROSE TMS	0		0-00-0	Pol_fa
8	707	601	XYLITOL 5TMS	512	C20H52O5Si5	0-00-0	Pol_fa
9	705	590	MANNITOL TMS	0		0-00-0	Pol_fa
10	701	587	ERYTHRITOL TMS	410	C16H42O4Si4	0-00-0	Pol_fa
11	691	633	LACTOSE MEOX2 TMS	0		0-00-0	Pol_fa
12	691	633	LACTOSE MEOX1 TMS	0		0-00-0	Pol_fa
13	684	565	RIBITOL TMS	0		0-00-0	Pol_fa
14	673	605	NIGEROSE MEOX2 TMS	0		0-00-0	Pol_fa
15	673	605	NIGEROSE MEOX1 TMS	0		0-00-0	Pol_fa
16	672	611	MALTOSE MEOX1 TMS	0		0-00-0	Pol_fa
17	655	529	GLUCOHEPTULOSE MEOX2 TMS	0		0-00-0	Pol_fa
18	655	529	GLUCOHEPTULOSE MEOX1 TMS	0		0-00-0	Pol_fa
19	646	534	SORBTOL TMS	0		0-00-0	Pol_fa
20	644	552	XYLOBIOSE MEOX2 TMS	0		0-00-0	Pol_fa

Retention Time Index (☺)



T_MSRI_ID.xls (schreibgeschützt) - OpenOffice.org Calc

Datei Bearbeiten Ansicht Einfügen Format Extras Daten Fenster Hilfe

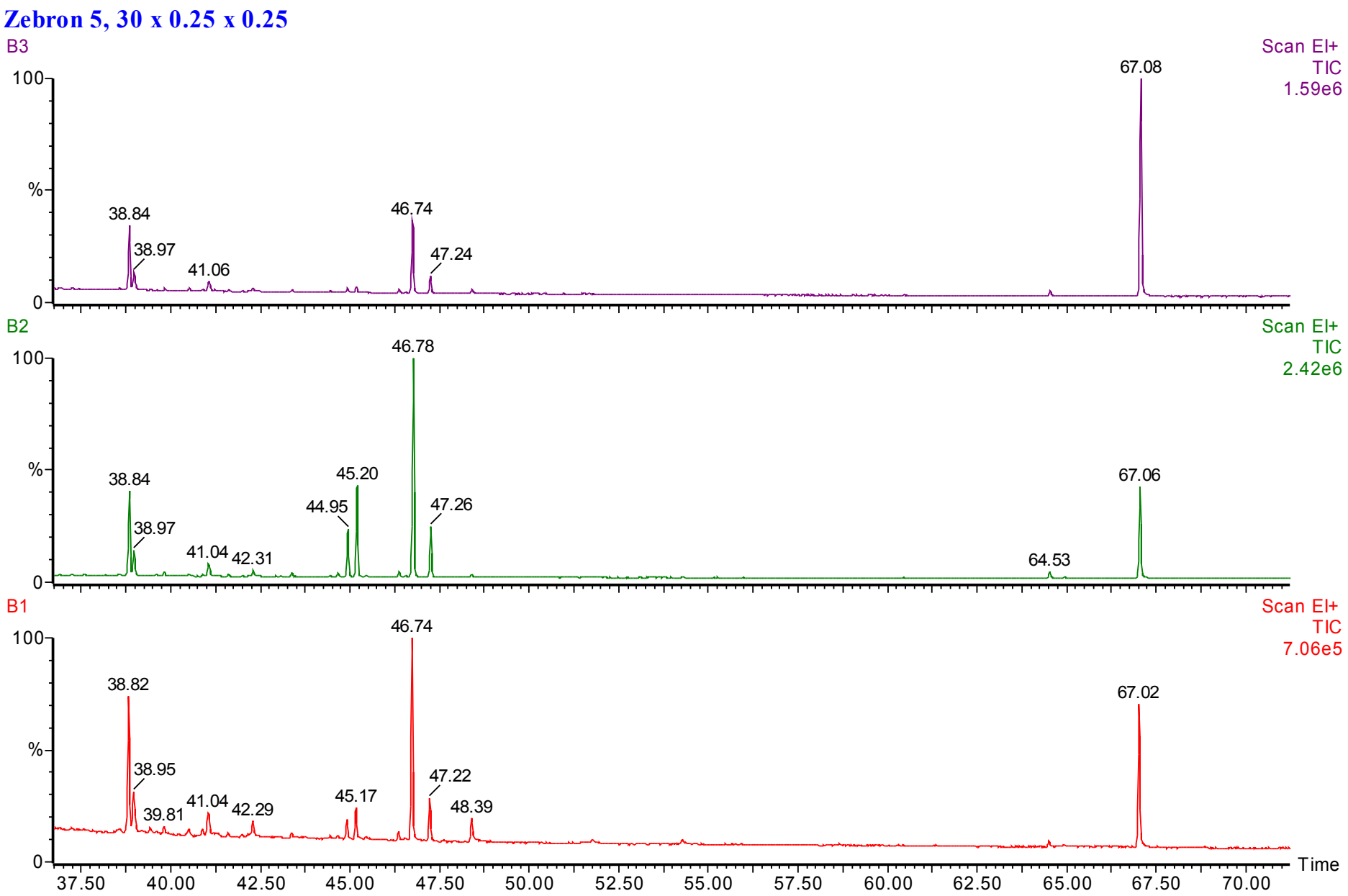
B1:B65536 = 1873

	A	B	C	D	E	F	G	H	I	J	
864	186008	1873,0	3035BB03	M[2]	Q_MSRI_ID	Sorbose methoxyamine (5TMS)	identified	ambient δ ¹²C	SD		
865	186009	1857,3	3184BF06	M[2]	Q_MSRI_ID	3,5-Dimethoxycinnamic acid {BP} (1TMS)	identified	ambient δ ¹²C	SD		Standard
866	187001	1871,1	3161BN33	M[2]	Q_MSRI_ID	L-Asparagine (4TMS)	identified	ambient δ ¹²C	ATH	L	*Arabidopsis thaliana* ec
867	187001	1870,8	1135EC44	M[1]	T_MSRI_ID	L-Asparagine (4TMS)	identified	ambient δ ¹²C	ATH	R	*Arabidopsis thaliana* ec
868	187001	1871,6	1164EK04	M[1]	T_MSRI_ID	L-Asparagine (4TMS)	identified	ambient δ ¹²C	SD		Standard
869	187001	1871,4	1179EK03	M[1]	T_MSRI_ID	L-Asparagine (4TMS)	identified	ambient δ ¹²C	SD		Standard
870	187002	1873,3	3161BN21	M[2]	Q_MSRI_ID	Fructose methoxyamine (5TMS)	identified	ambient δ ¹²C	ATH	L	*Arabidopsis thaliana* ec
871	187002	1865,8	1135EC44	M[1]	T_MSRI_ID	Fructose methoxyamine (5TMS)	identified	ambient δ ¹²C	ATH	R	*Arabidopsis thaliana* ec
872	187002	1866,7	1185EK18	M[1]	T_MSRI_ID	Fructose methoxyamine (5TMS)	identified	ambient δ ¹²C	SD		Standard
873	187002	1866,1	1135EC00	M[1]	T_MSRI_ID	Fructose methoxyamine (5TMS)	identified	ambient δ ¹²C	SD		Standard
874	187002	1874,5	2236BN30	M[2]	Q_MSRI_ID	Fructose methoxyamine (5TMS)	identified	ambient δ ¹²C	LJA	LD	*Lotus japonicus* (Regel
875	187002	1877,1	2236BN50	M[2]	Q_MSRI_ID	Fructose methoxyamine (5TMS)	identified	ambient δ ¹²C	LJA	F	*Lotus japonicus* (Regel
876	187002	1875,9	2236BN14	M[2]	Q_MSRI_ID	Fructose methoxyamine (5TMS)	identified	ambient δ ¹²C	LJA	RL	*Lotus japonicus* (Regel
877	187002	1871,7	2236BN40	M[2]	Q_MSRI_ID	Fructose methoxyamine (5TMS)	identified	ambient δ ¹²C	LJA	LM	*Lotus japonicus* (Regel
878	187002	1874,5	2236BN40	M[2]	Q_MSRI_ID	Fructose methoxyamine (5TMS)	identified	ambient δ ¹²C	LJA	LM	*Lotus japonicus* (Regel
879	187002	1875,0	2236BN20	M[2]	Q_MSRI_ID	Fructose methoxyamine (5TMS)	identified	ambient δ ¹²C	LJA	RP	*Lotus japonicus* (Regel
880	187002	1875,7	1267BK12	M[2]	Q_MSRI_ID	Fructose methoxyamine (5TMS)	identified	ambient δ ¹²C	SD		
881	187003	1869,2	1344EC16	M[1]	T_MSRI_ID	2-Ketogluconic acid methoxyamine (5TMS)	identified	ambient δ ¹²C	SD		Standard
882	187005	1871,9	1135EC44	M[1]	T_MSRI_ID			ambient δ ¹²C	ATH	R	*Arabidopsis thaliana* ec
883	187006	1865,9	1267BK12	M[2]	Q_MSRI_ID	[911; O-Methyl-inositol (5TMS)]	matched	ambient δ ¹²C	NID		
884	187006	1865,4	2236BN20	M[2]	Q_MSRI_ID	[923; O-Methyl-inositol (5TMS)]	matched	ambient δ ¹²C	LJA	RP	*Lotus japonicus* (Regel
885	187007	1870,1	1135EC00	M[1]	T_MSRI_ID	Sorbose methoxyamine {BP} (5TMS)	identified	ambient δ ¹²C	SD		Standard
886	187007	1878,2	3035BB03	M[2]	Q_MSRI_ID	Sorbose methoxyamine {BP} (5TMS)	identified	ambient δ ¹²C	SD		
887	187008	1873,3	1135EC00	M[1]	T_MSRI_ID	Allose methoxyamine (5TMS)	identified	ambient δ ¹²C	SD		Standard
888	187009	1872,8	3233BF05	M[2]	Q_MSRI_ID	Calystegine B4 methoxyamine {BP} (4TMS)	identified	ambient δ ¹²C	SD		Standard
889	188001	1883,7	1185EK19	M[1]	T_MSRI_ID	Galactose methoxyamine (5TMS)	identified	ambient δ ¹²C	SD		Standard
890	188001	1885,5	1135EC00	M[1]	T_MSRI_ID	Galactose methoxyamine (5TMS)	identified	ambient δ ¹²C	SD		Standard
891	188001	1892,0	2236BN50	M[2]	Q_MSRI_ID	Galactose methoxyamine (5TMS)	identified	ambient δ ¹²C	LJA	F	*Lotus japonicus* (Regel
892	188001	1891,7	2236BN20	M[2]	Q_MSRI_ID	Galactose methoxyamine (5TMS)	identified	ambient δ ¹²C	LJA	RP	*Lotus japonicus* (Regel
893	188001	1893,3	1215BK38	M[2]	Q_MSRI_ID	Galactose methoxyamine (5TMS)	identified	ambient δ ¹²C	SD		
894	188002	1879,8	1185EK17	M[1]	T_MSRI_ID	Mannose methoxyamine (5TMS)	identified	ambient δ ¹²C	SD		Standard
895	188002	1878,7	1135EC00	M[1]	T_MSRI_ID	Mannose methoxyamine (5TMS)	identified	ambient δ ¹²C	SD		Standard
896	188002	1888,1	1267BK12	M[2]	Q_MSRI_ID	Mannose methoxyamine (5TMS)	identified	ambient δ ¹²C	SD		
897	188003	1884,8	2011EC37	M[1]	T_MSRI_ID	D(-)-Galactono-1,4-lactone (4TMS)	identified	ambient δ ¹²C	SD		Standard
898	188004	1883,9	3161BN26	M[2]	Q_MSRI_ID	Fructose methoxyamine {BP} (5TMS)	identified	ambient δ ¹²C	ATH	L	*Arabidopsis thaliana* ec
899	188004	1874,1	1135EC25	M[1]	T_MSRI_ID	Fructose methoxyamine {BP} (5TMS)	identified	ambient δ ¹²C	ATH	R	*Arabidopsis thaliana* ec
900	188004	1875,4	1185EK18	M[1]	T_MSRI_ID	Fructose methoxyamine {BP} (5TMS)	identified	ambient δ ¹²C	SD		Standard
901	188004	1874,8	1135EC00	M[1]	T_MSRI_ID	Fructose methoxyamine {BP} (5TMS)	identified	ambient δ ¹²C	SD		Standard
902	188004	1885,6	2236BN14	M[2]	Q_MSRI_ID	Fructose methoxyamine {BP} (5TMS)	identified	ambient δ ¹²C	LJA	RL	*Lotus japonicus* (Regel
903	188004	1883,5	3237BF24	M[2]	Q_MSRI_ID	Fructose methoxyamine {BP} (5TMS)	identified	ambient δ ¹²C	SD		
904	188004	1885,1	1267BK12	M[2]	Q_MSRI_ID	Fructose methoxyamine {BP} (5TMS)	identified	ambient δ ¹²C	SD		
905	188005	1879,6	1344EC04	M[1]	T_MSRI_ID	Adenine (2TMS)	identified	ambient δ ¹²C	SD		Standard

T_MSRI_ID

Tabelle 1 / 1 | PageStyle_T_MSRI_ID | STD | Summe=4286931,2 | 100%

Bach


Zebron 5, 30 x 0.25 x 0.25
B3
Scan EI+
TIC
1.59e6
67.08
46.74
38.84
38.97
41.06
47.24
B2
Scan EI+
TIC
2.42e6
46.78
45.20
38.84
44.95
47.26
38.97
41.04
42.31
64.53
67.06
B1
Scan EI+
TIC
7.06e5
46.74
38.82
67.02
38.95
47.22
45.17
41.04
42.29
39.81
48.39
100
%
0
Time
37.50
40.00
42.50
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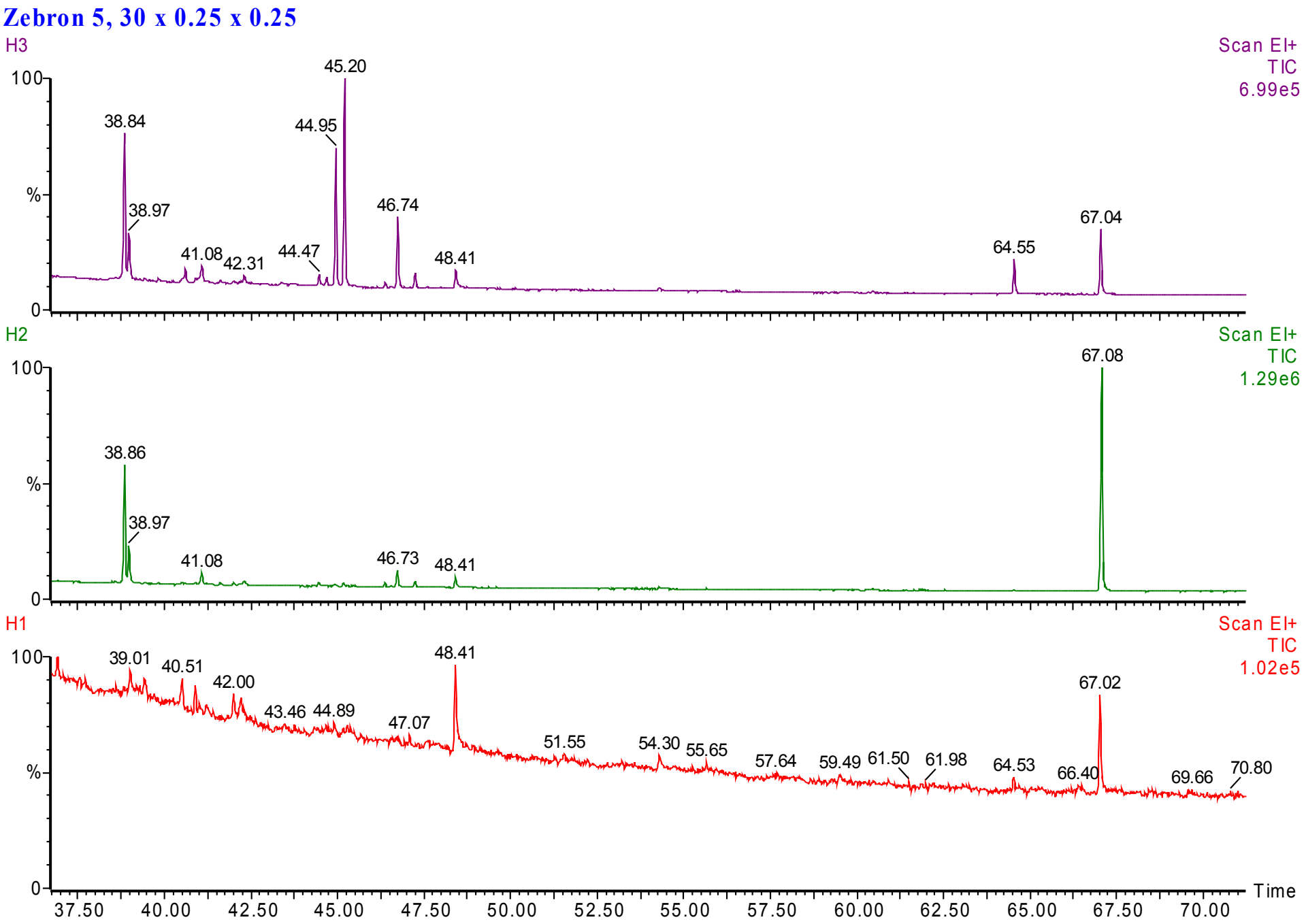
70.00

Hang


Zebron 5, 30 x 0.25 x 0.25
H3
Scan EI+
TIC
6.99e5
100
%
0
38.84
38.97
41.08
42.31
44.47
45.20
44.95
46.74
48.41
64.55
67.04
H2
Scan EI+
TIC
1.29e6
100
%
0
38.86
38.97
41.08
46.73
48.41
67.08
H1
Scan EI+
TIC
1.02e5
100
%
0
39.01
40.51
42.00
43.46
44.89
47.07
48.41
51.55
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55.65
57.64
59.49
61.50
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64.53
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47.50
50.00
52.50
55.00
57.50
60.00
62.50
65.00
67.50
70.00

Plateau

Zebron 5, 30 x 0.25 x 0.25