

Peaks	tr (min)	Peaks	tr (min)
1. (E)-Xylose-TMS-oxime	9.501	8. (Z)-Fucose-TMS-oxime	10.039
2. (E)-Ribose-TMS-oxime	9.603	9. (E)-Mannose-TMS-oxime	10.668
3. (Z)-Ribose-TMS-oxime	9.658	10. (E)-Galactose-TMS-oxime	10.737
4. (Z)-Xylose-TMS-oxime	9.805	11. (E)-Glucose-TMS-oxime	10.775
5. (E)-Rhamnose-TMS-oxime	9.863	12. (Z)-Mannose-TMS-oxime	10.881
6. (E)-Fucose-TMS-oxime	9.891	13. (Z)-Galactose-TMS-oxime	10.956
7. (Z)-Rhamnose-TMS-oxime	9.957	14. (Z)-Glucose-TMS-oxime	10.963

Column Rtx-1701, 30 m, 0.25 mm ID, 0.25 μm (cat.# 12023)

Standard/Sample Sugar TMS oximes
Ethyl acetate
1-5 mg of starting material Diluent: Conc.: Injection

 $1~\mu L$ split (split ratio 100:1) Topaz 4.0 mm ID Precision Inlet Liner w/ Wool (cat.# 23305) 250 °C Inj. Vol.: Liner:

Inj. Temp.:

Oven Oven Temp.: 40 °C (hold 1 min) to 280 °C at 19 °C/min

Carrier Gas He, constant flow Flow Rate: Linear Velocity: 1.4 mL/min 45.023 cm/sec @ 150 °C 1.11 min @ 150 °C Dead Time: Detector

Mode: Scan Scan Program:

	Start Time	Scan Range	Scan Rate
Group	(min)	(amu)	(scans/sec
1	1.5	50-750	7.5

Transfer Line Temp.: 280°C Analyzer Type: Source Type: Source Temp.: Quadrupole Extractor 280 °C 150 °C 977 eV 1.5 min Quad Temp.: Electron Energy: Solvent Delay Time: Tune Type: PFTBA

Ionization Mode: Instrument Agilent 7890B GC & 5977A MSD Notes

Agrical To 900 G. 3971A MSD Approximately 1 mg of sugar was dissolved in 100 μ L of 40 mg/mL ethylhydroxylaminehydrochloride (EtOx) and heated at 70°C for 30 min. Samples were cooled to room temperature for approximately 5 min. 120 μ L of N-Methyl-bis(trifluoroacetamide) (MBTFA) was added to each sample and then heated at 70°C for 30 min. Samples were diluted 1:100 in ethyl acetate.

