

Mercury treated UA-GlcNAc product

Chemical shifts / ppm

Uronic acid residue

H-1 5.00
H-2 3.74
H-3 3.96
H-4 4.15

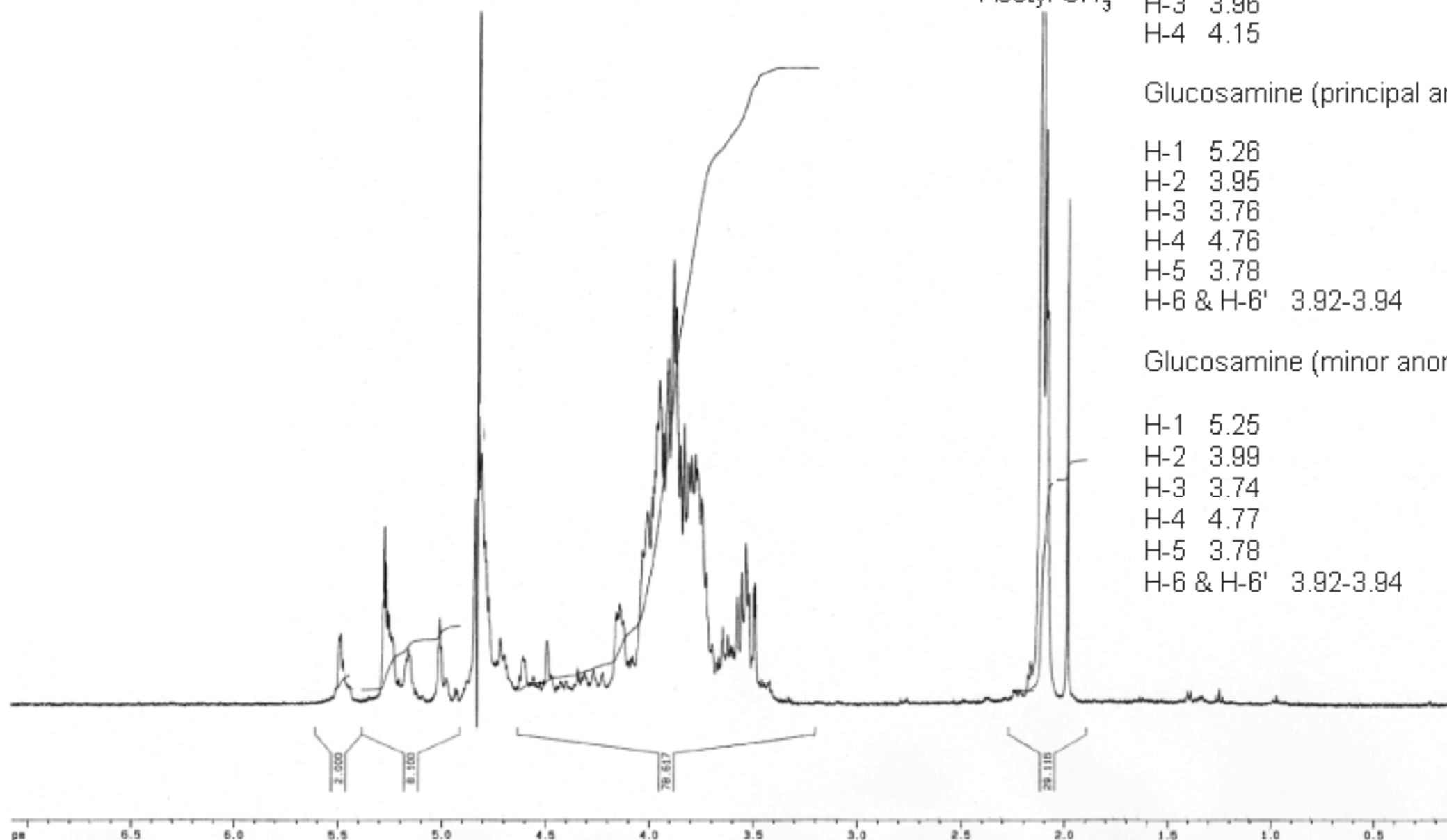
Glucosamine (principal anomer)

H-1 5.26
H-2 3.95
H-3 3.76
H-4 4.76
H-5 3.78
H-6 & H-6' 3.92-3.94

Glucosamine (minor anomer)

H-1 5.25
H-2 3.99
H-3 3.74
H-4 4.77
H-5 3.78
H-6 & H-6' 3.92-3.94

Acetyl CH₃



¹H-¹H COSY Spectrum of oxymercurated ΔUA-GlcNAc reaction mixture

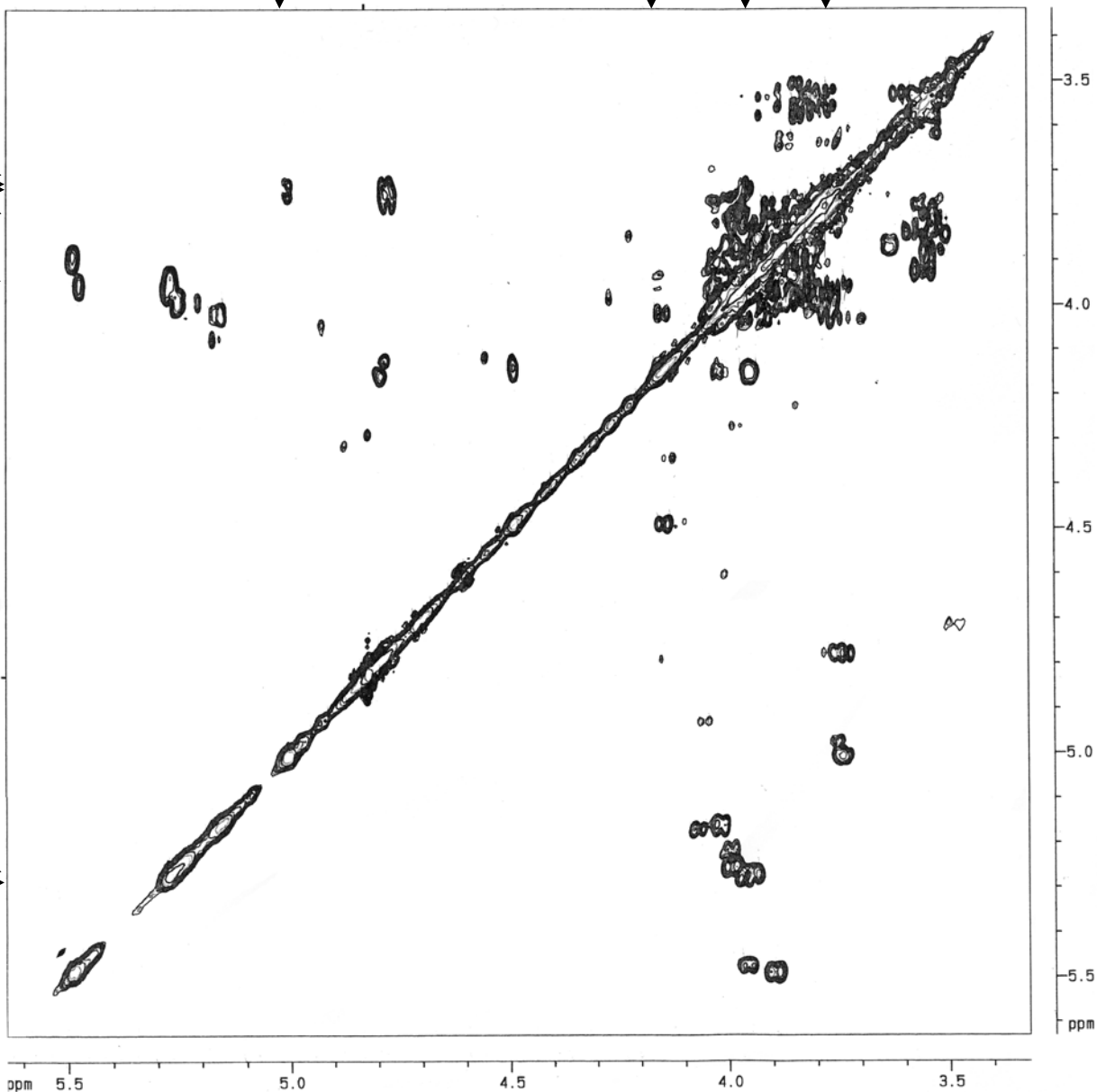
Uronic Acid Signals

H-1 5.00
 H-4 4.15
 H-3 3.96
 H-2 3.75

Minor Anomer

Major Anomer

H-3 3.74	→	H-3 3.76
H-5 3.78	→	H-5 3.78
H-6,6' 3.92 – 3.94	→	H-6,6' 3.92 – 3.94
H-2 3.99	→	H-2 3.95
H-4 4.77	→	H-4 4.76
H-1 5.25	→	H-1 5.26



Intens.
(arb)

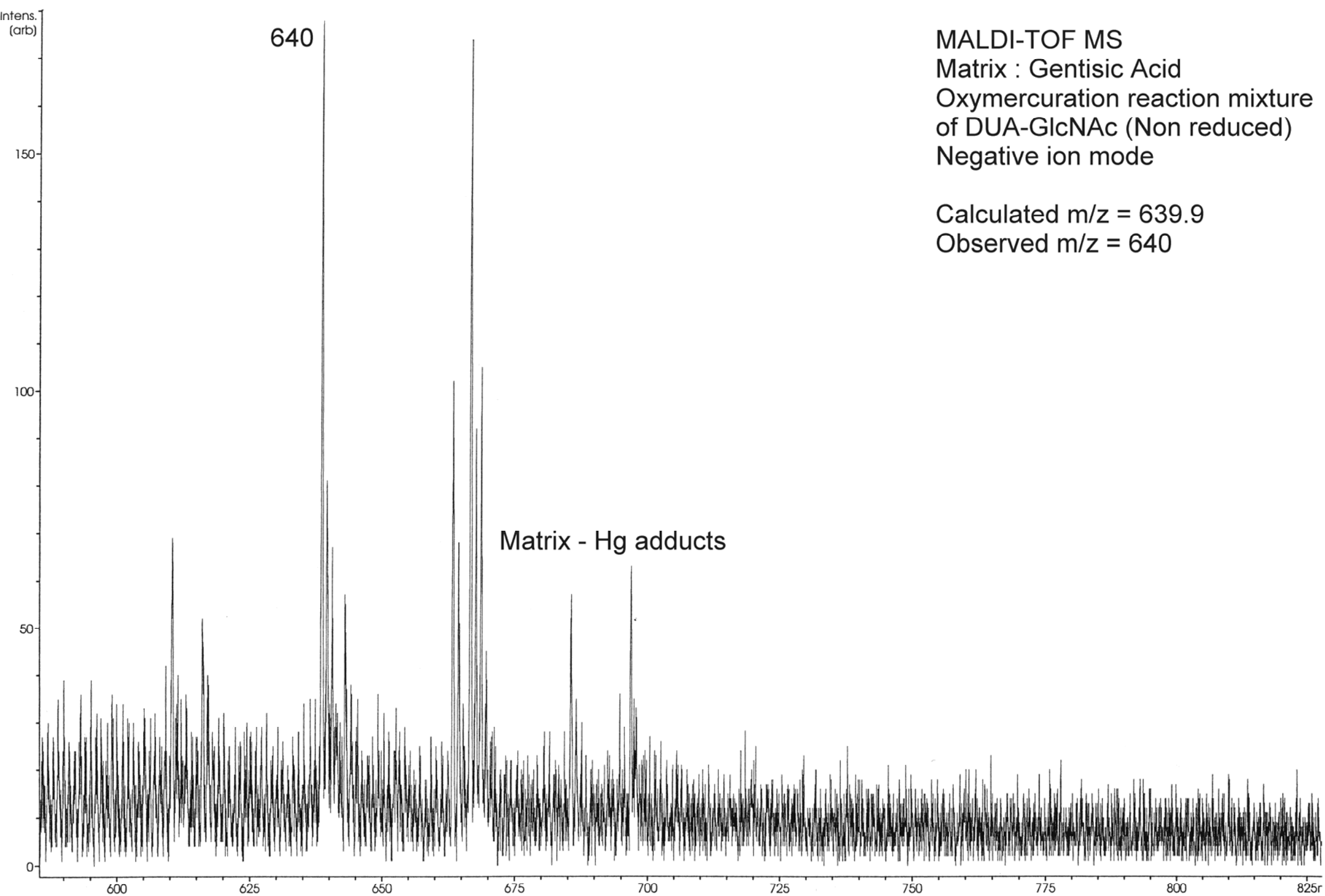
640

MALDI-TOF MS
Matrix : Gentisic Acid
Oxymercuration reaction mixture
of DUA-GlcNAc (Non reduced)
Negative ion mode

Calculated m/z = 639.9

Observed m/z = 640

Matrix - Hg adducts



Chondroitin Sulphate Disaccharide

Chemical Shifts / ppm

Uronic acid residue

H-1 5.10

H-2 3.69

H-3 4.26

H-4 5.74

Acetyl CH₃

6 5 4 3 2 1 0 ppm

Mercury treated Chondroitin Sulphate Disaccharide

Chemical Shifts / ppm

Uronic acid residue

H-1 5.25

H-2 4.15

H-3 4.33

H-4 4.23

Acetyl CH₃

EDTA

6 5 4 3 2 1 0 ppm