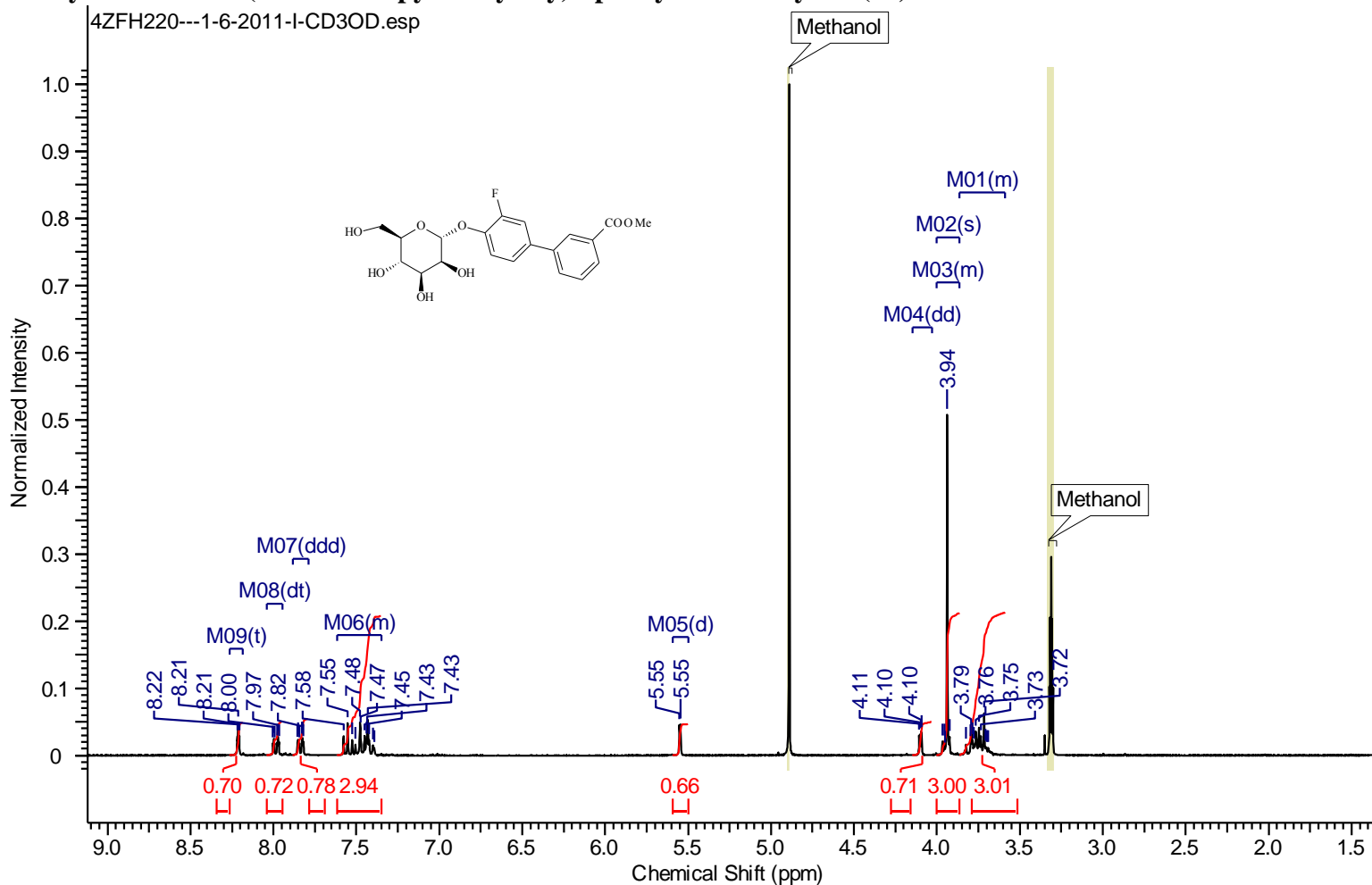
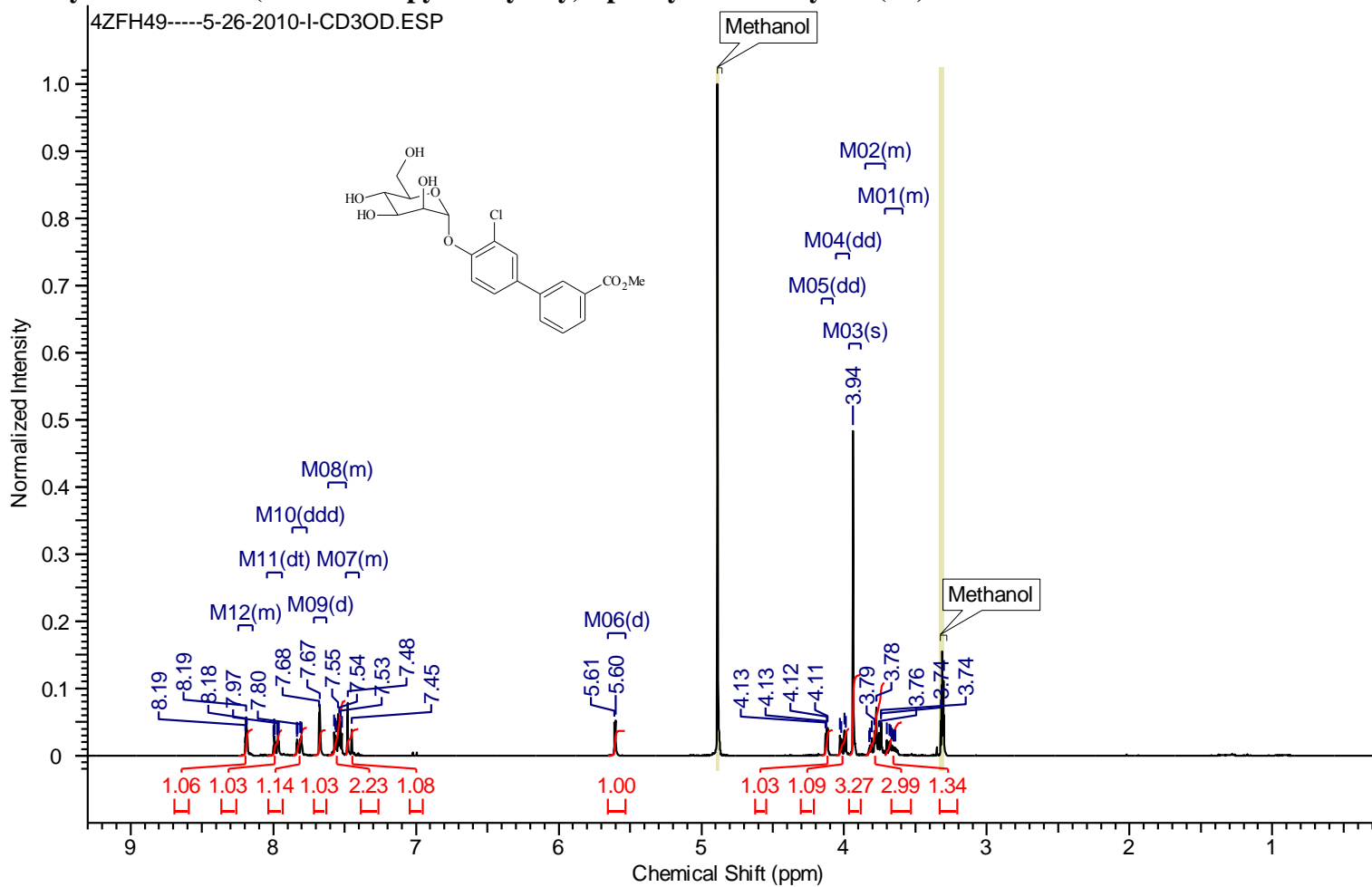


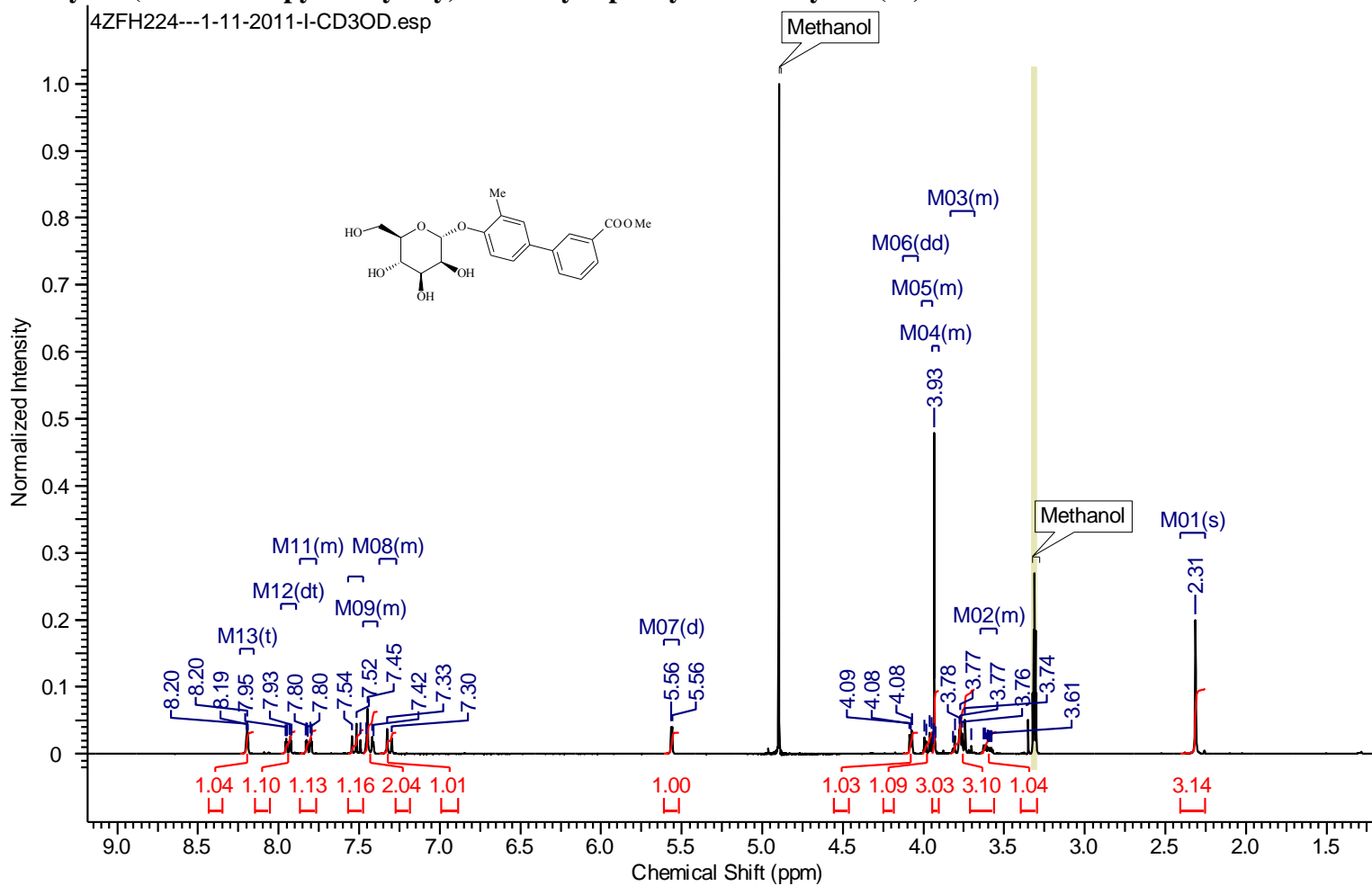
# Methyl 3'-fluoro-4'-( $\alpha$ -D-mannopyranosyloxy)biphenyl-3-carboxylate (4a)



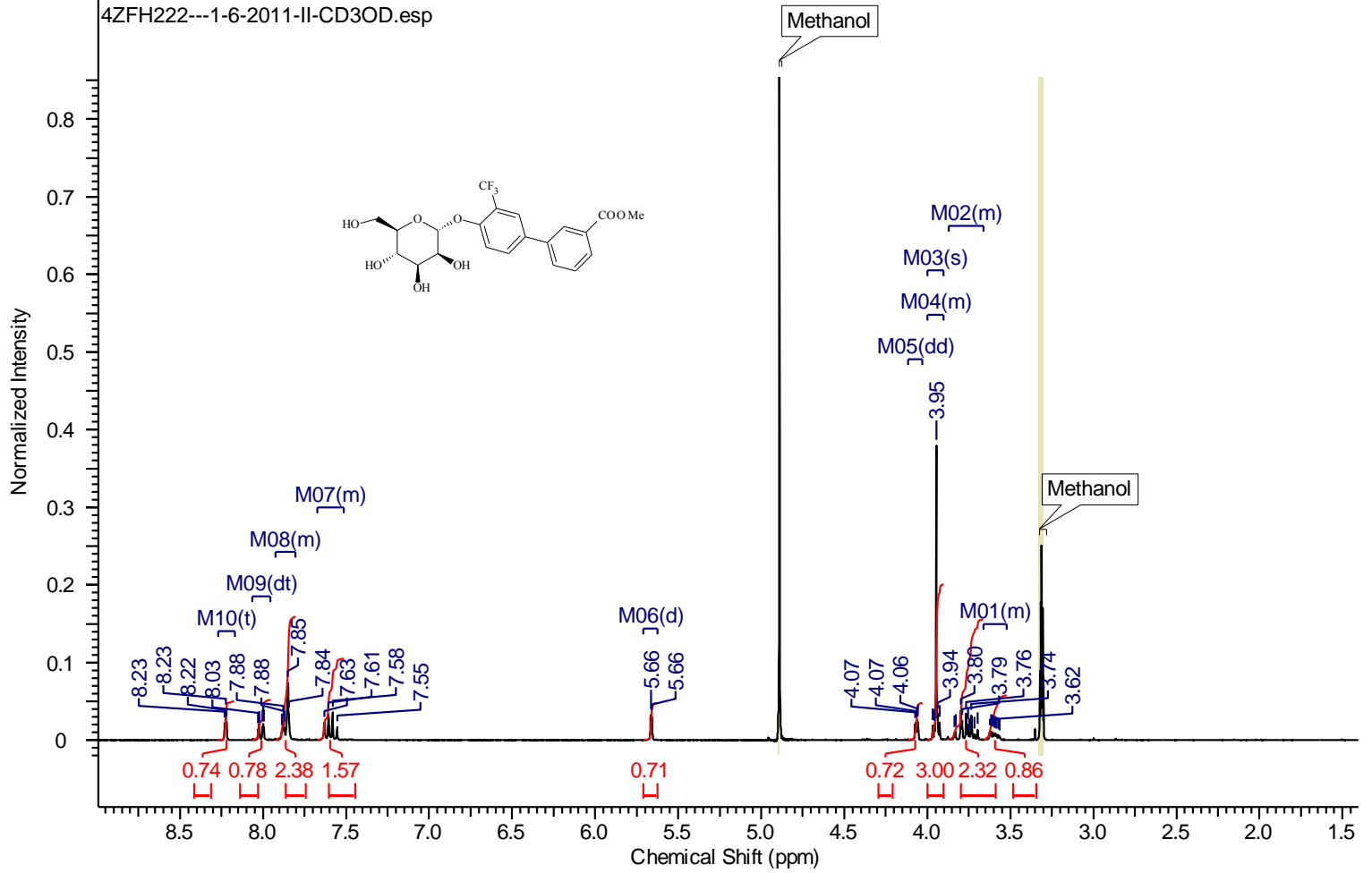
# Methyl 3'-chloro-4'-( $\alpha$ -D-mannopyranosyloxy)biphenyl-3-carboxylate (4b)



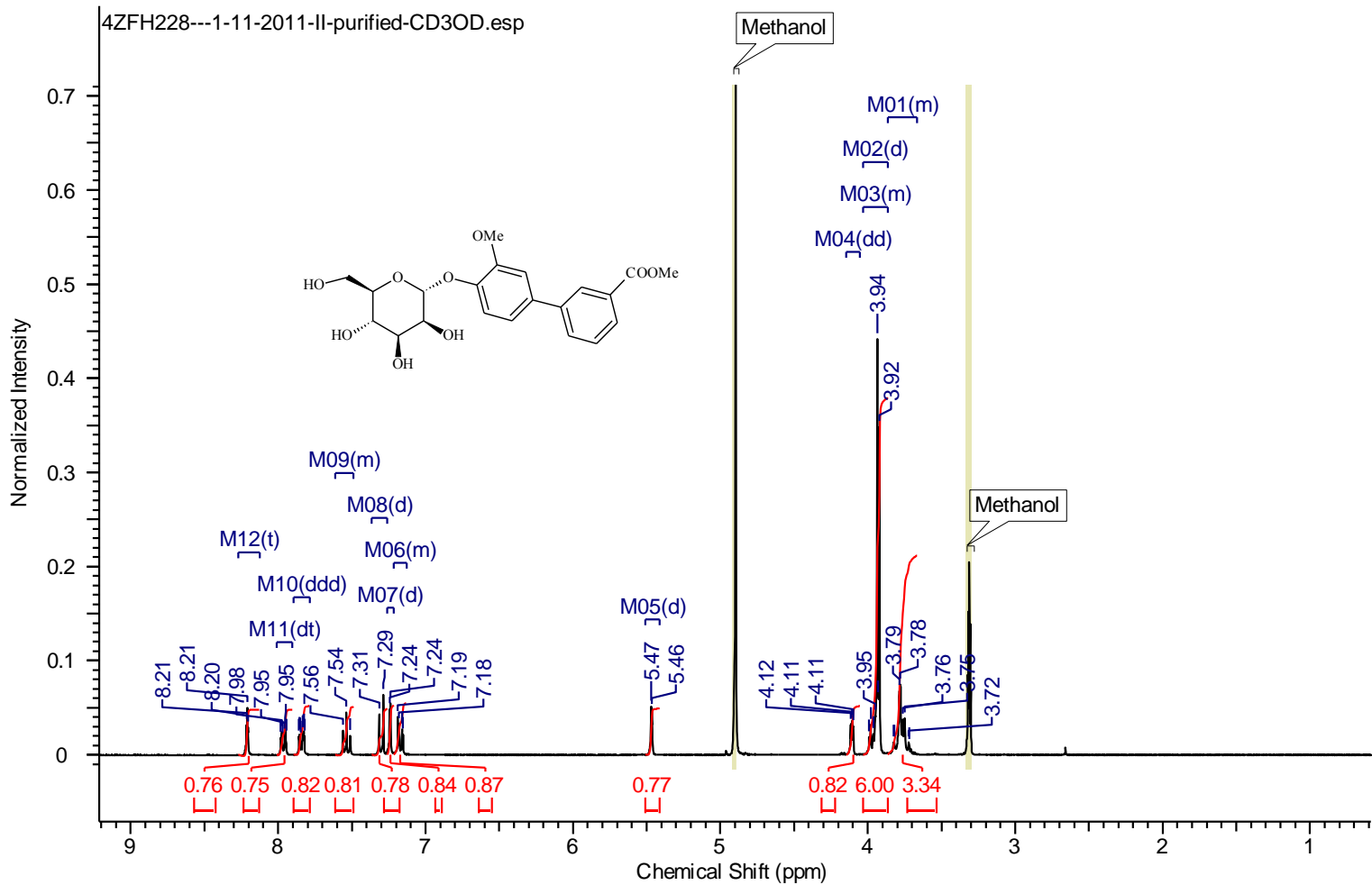
# Methyl 4'-( $\alpha$ -D-mannopyranosyloxy)-3'-methylbiphenyl-3-carboxylate (4c)



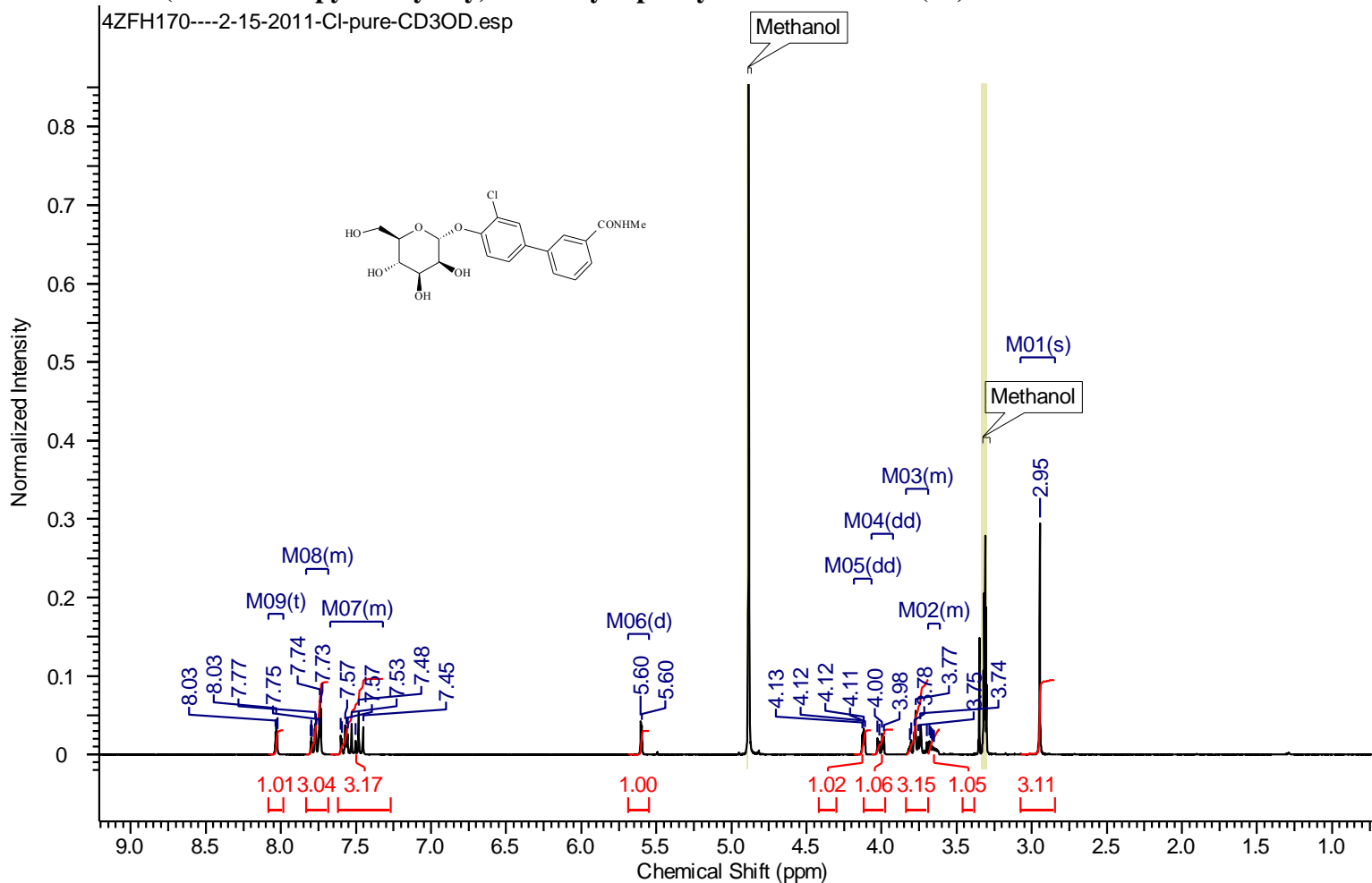
# Methyl 4'-( $\alpha$ -D-mannopyranosyloxy)-3'-(trifluoromethyl)biphenyl-3-carboxylate (4d)



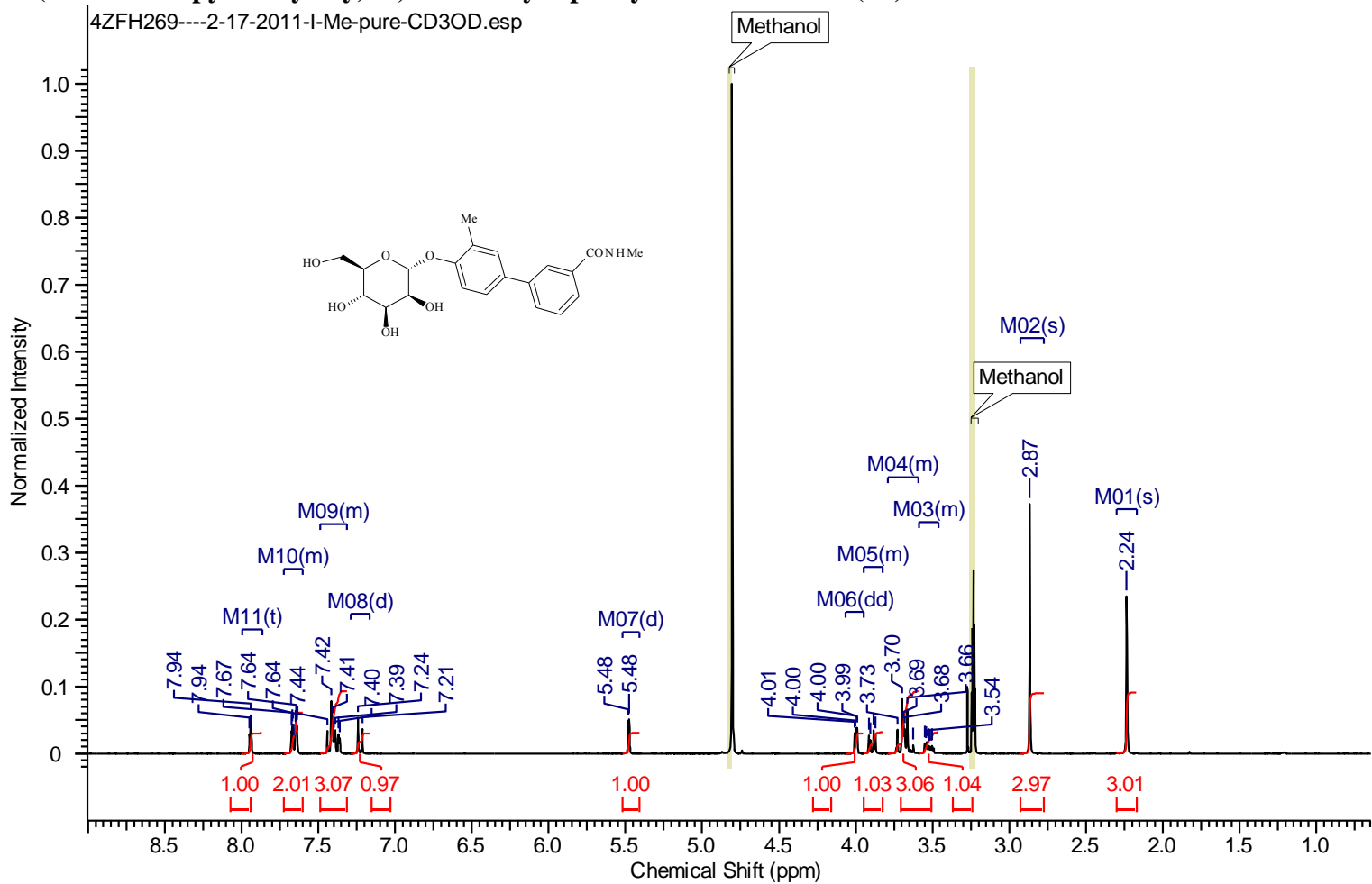
# Methyl 4'-( $\alpha$ -D-mannopyranosyloxy)-3'-methoxybiphenyl-3-carboxylate (4e)



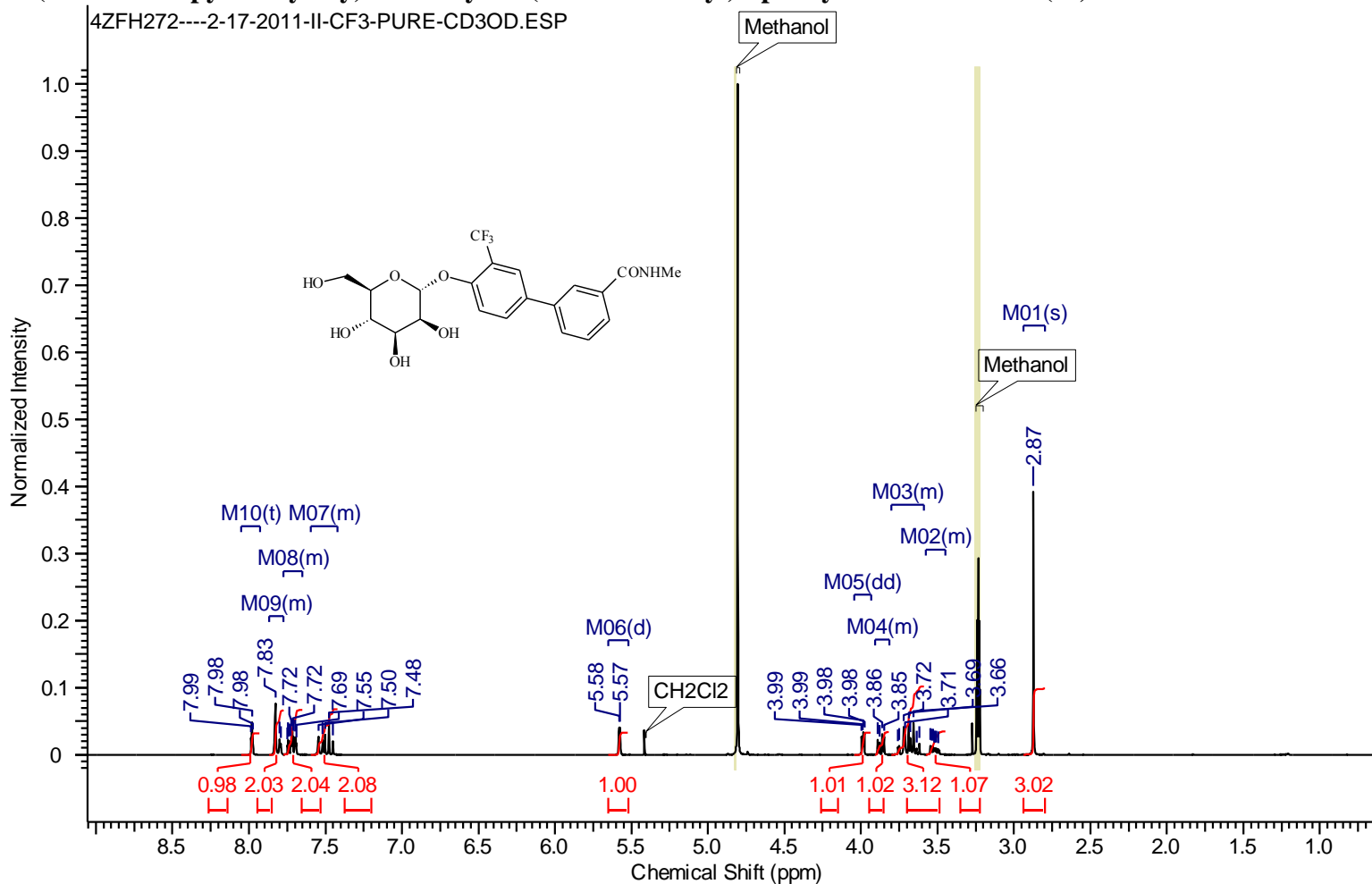
### 3'-Chloro-4'-( $\alpha$ -D-mannopyranosyloxy)-N-methylbiphenyl-3-carboxamide (5a)



# 4'-( $\alpha$ -D-Mannopyranosyloxy)-N,3'-dimethylbiphenyl-3-carboxamide (5b)

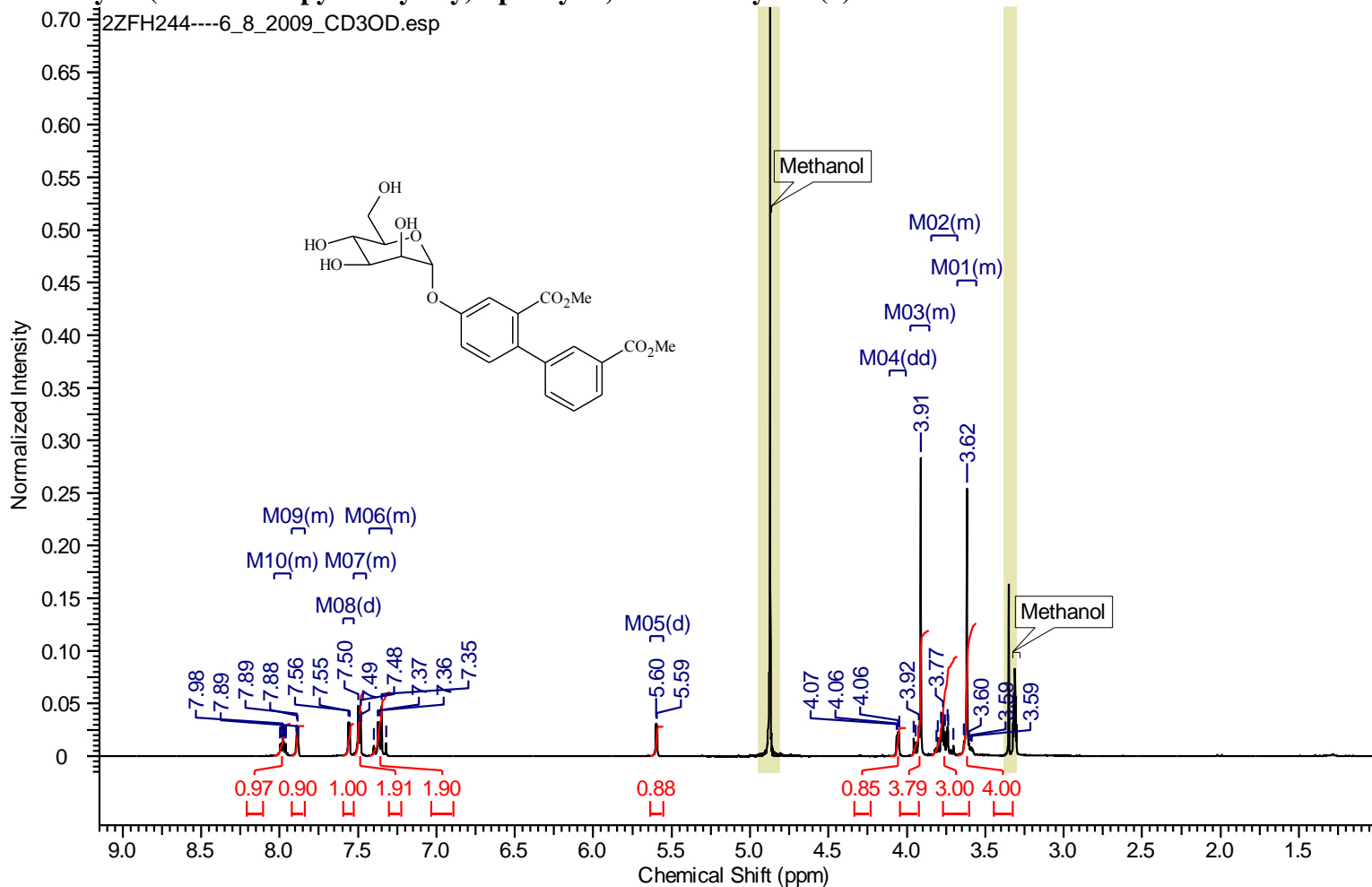


# 4'-( $\alpha$ -D-Mannopyranosyloxy)-N-methyl-3'-(trifluoromethyl)biphenyl-3-carboxamide (5c)

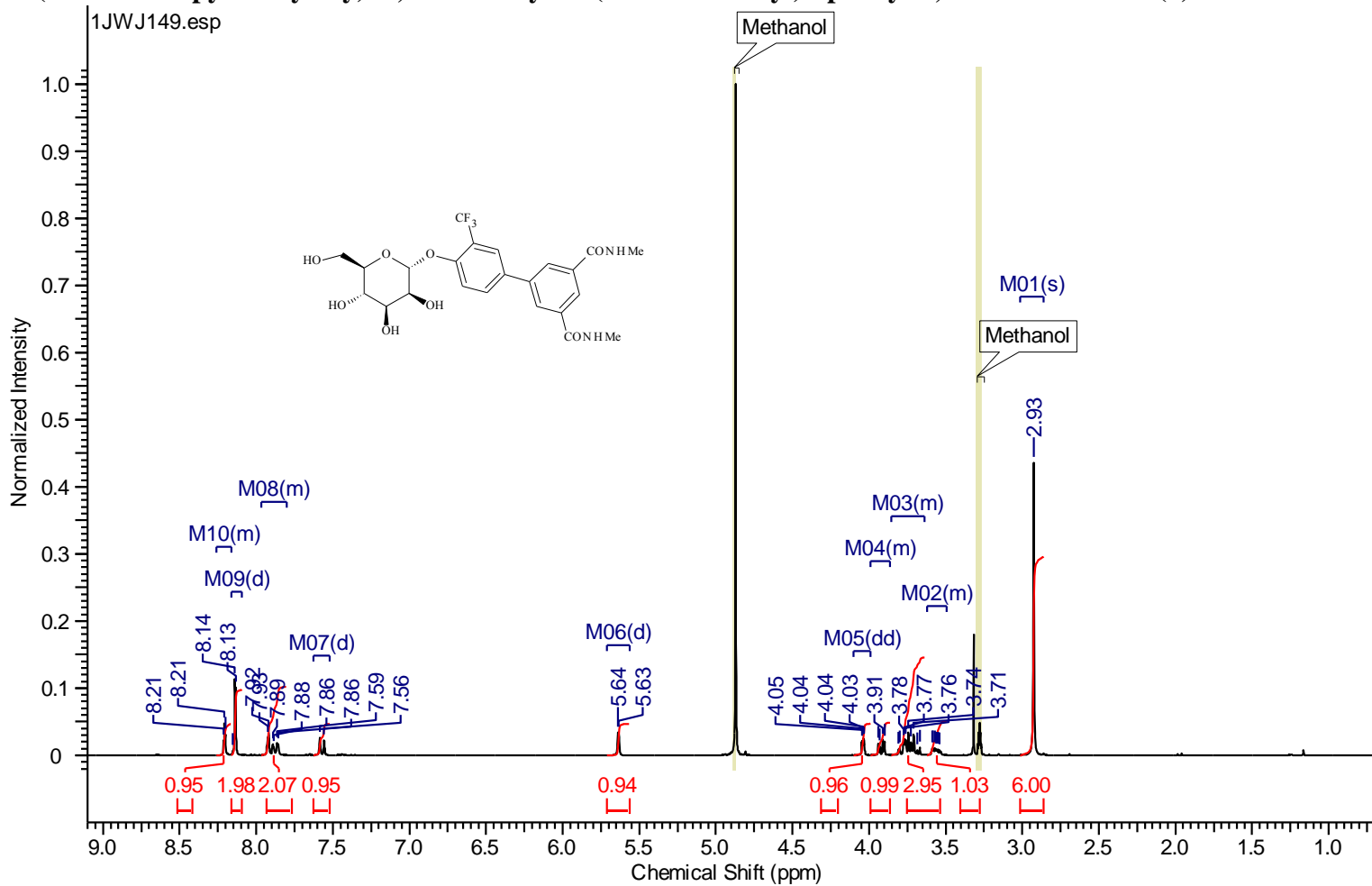




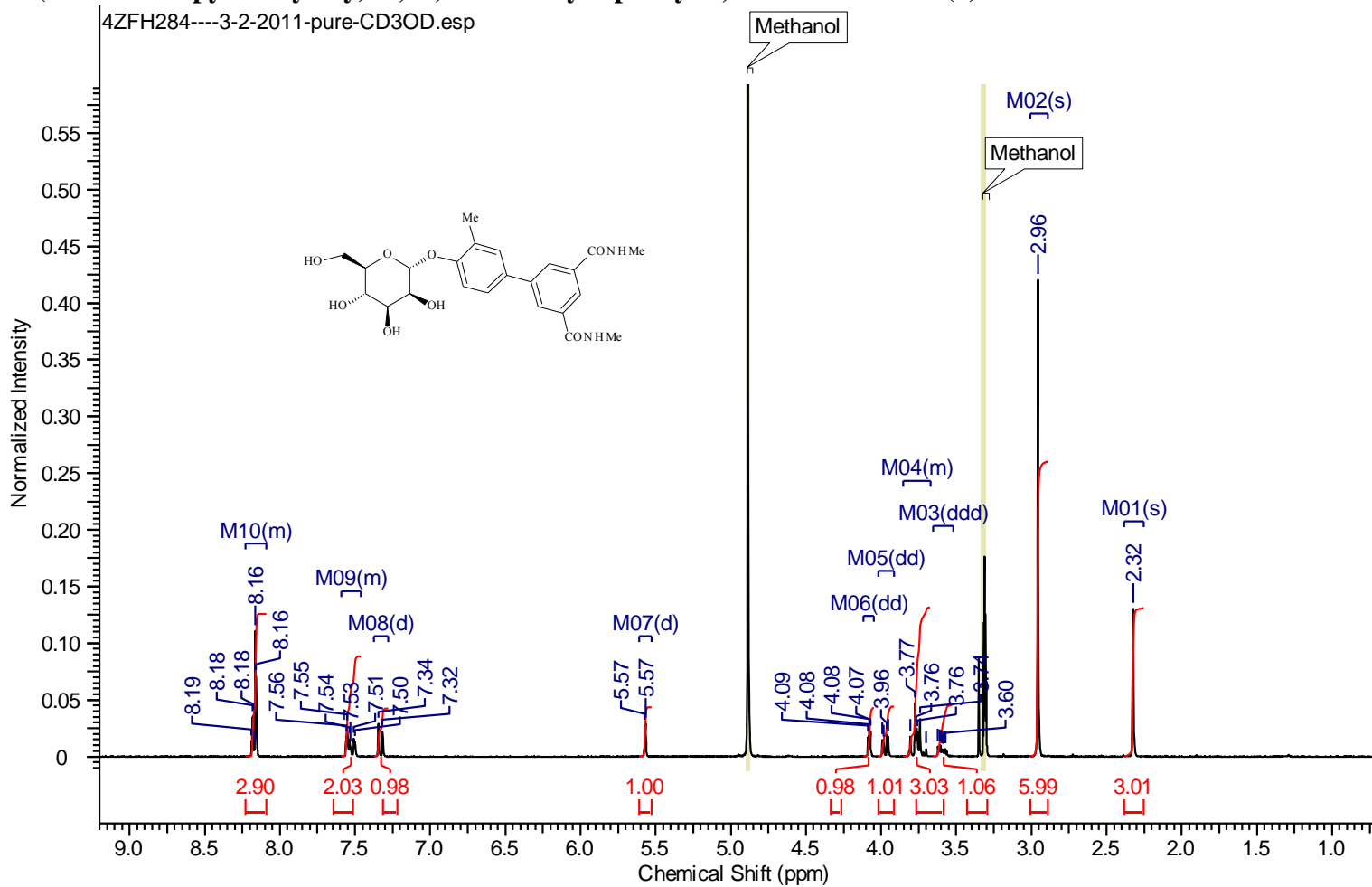
# Dimethyl 4-( $\alpha$ -D-mannopyranosyloxy)biphenyl-2,3'-dicarboxylate (6)



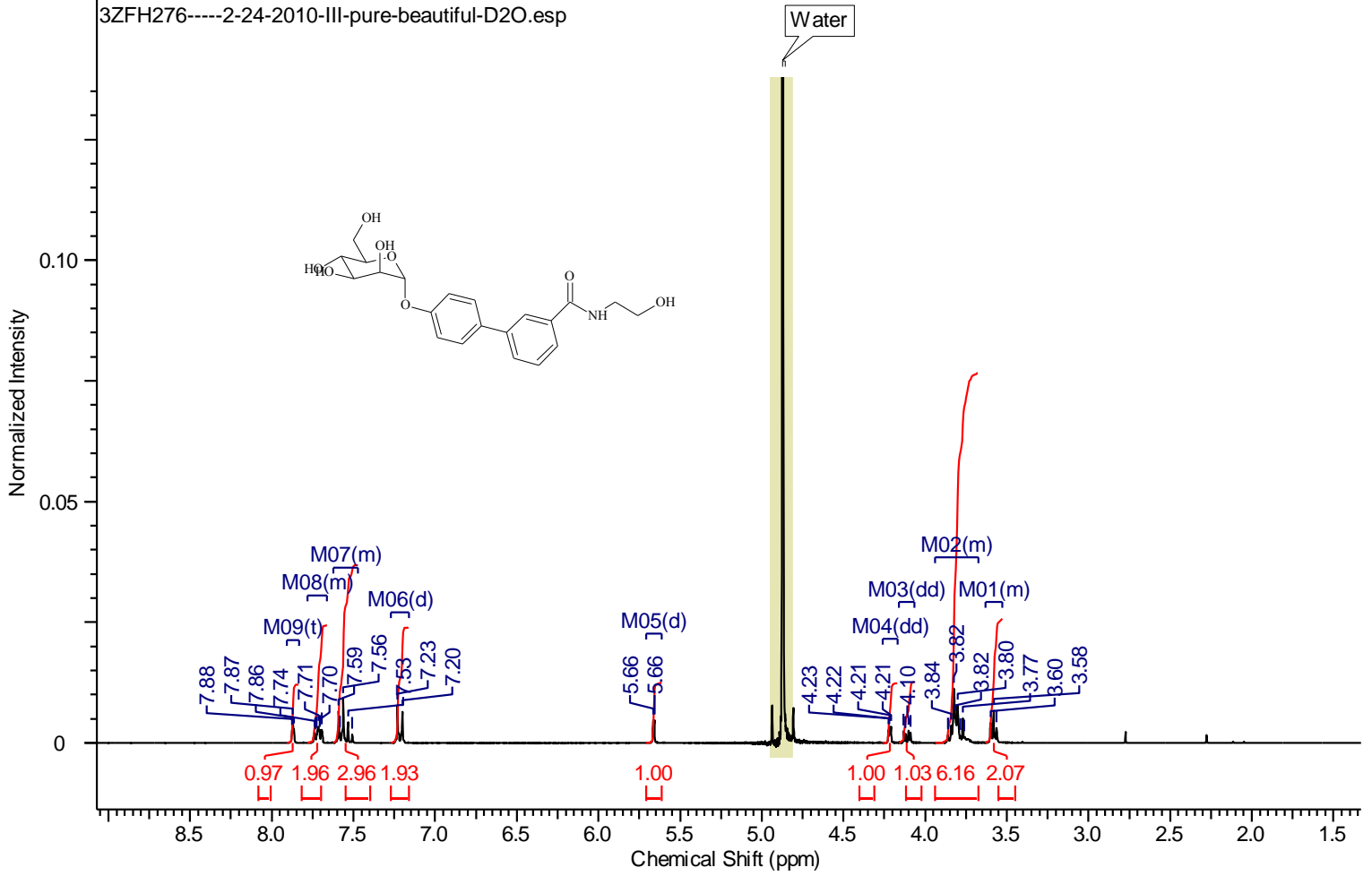
4'-( $\alpha$ -D-Mannopyranosyloxy)-N,N'-dimethyl-3'-(trifluoromethyl)biphenyl-3,5-dicarboxamide (7)



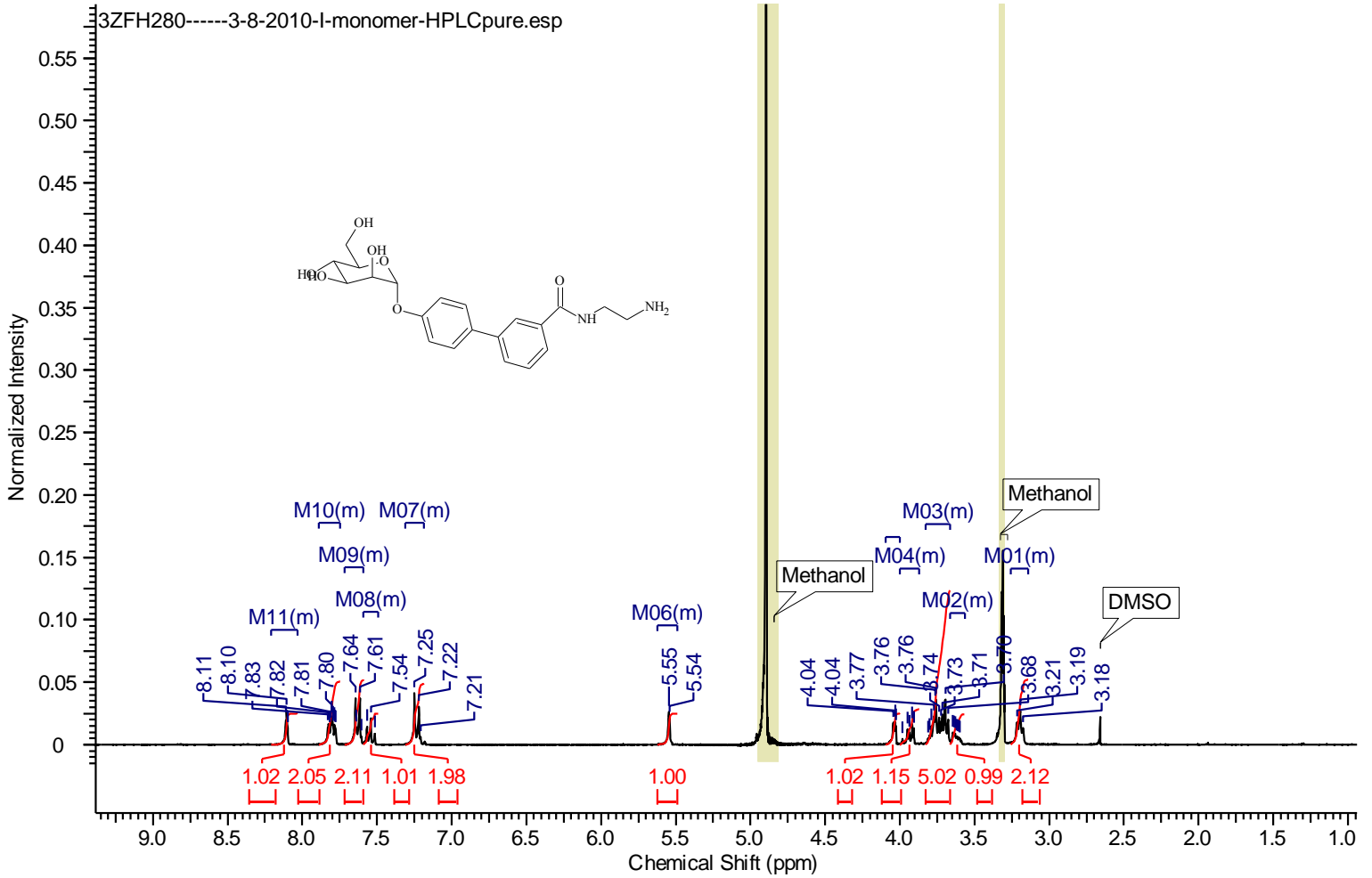
# 4'-( $\alpha$ -D-Mannopyranosyloxy)-*N,N'*,3'-trimethylbiphenyl-3,5-dicarboxamide (8)



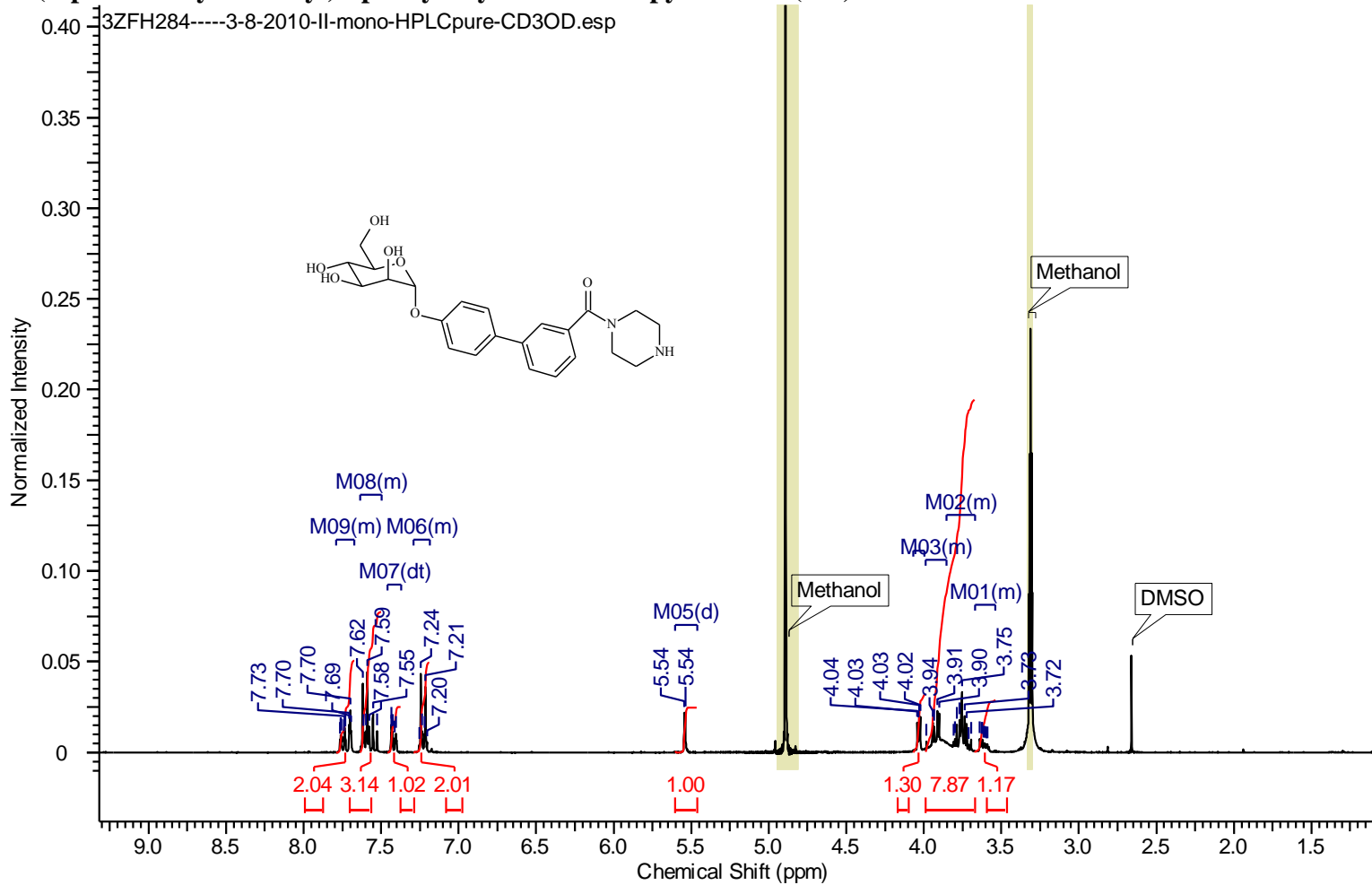
***N*-(2-Hydroxyethyl)-4'-( $\alpha$ -D-mannopyranosyloxy)biphenyl-3-carboxamide (10a)**



***N*-(2-Aminoethyl)-4'-( $\alpha$ -D-mannopyranosyloxy)biphenyl-3-carboxamide (10b)**

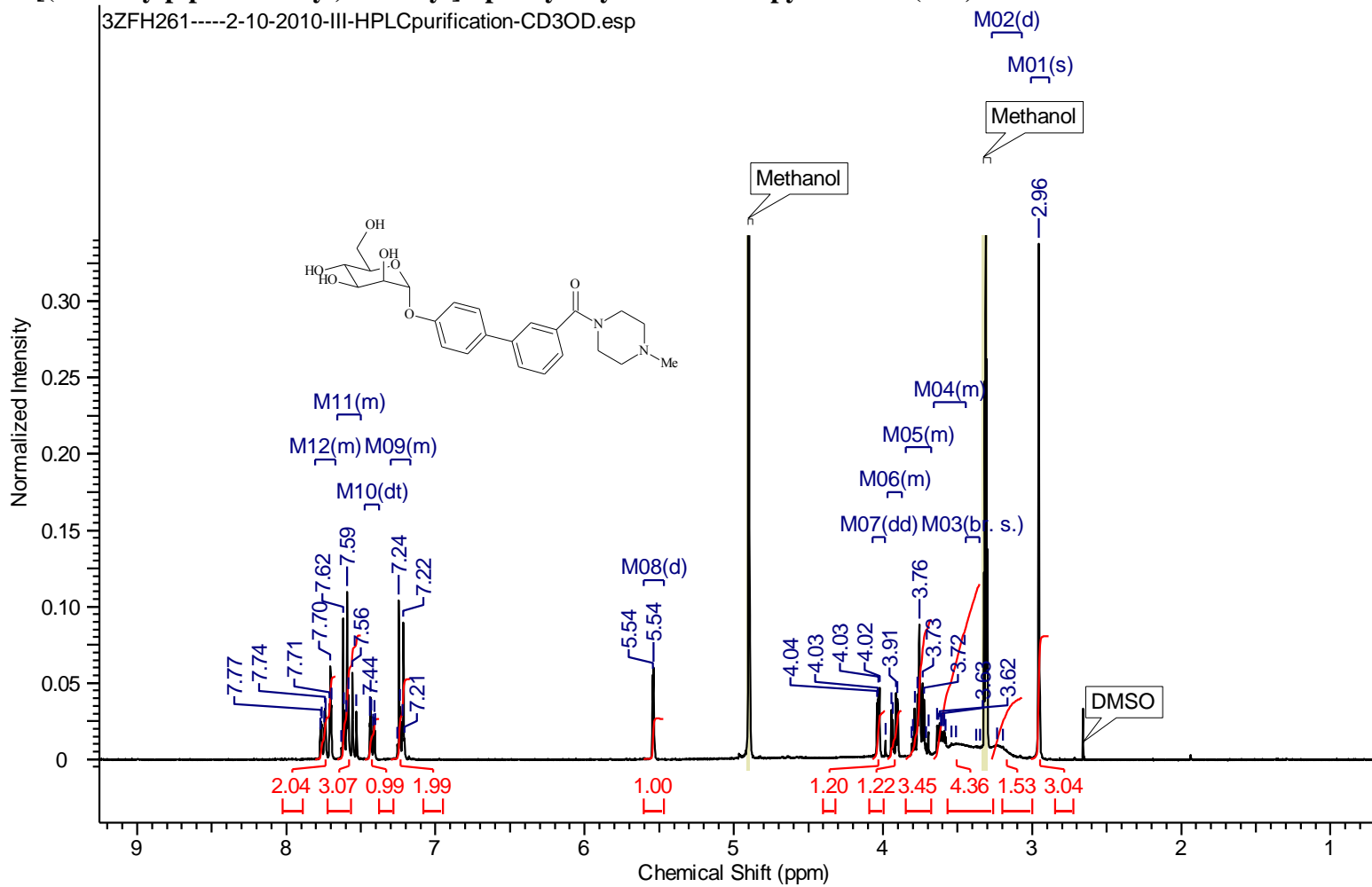


### 3'-(Piperazin-1-ylcarbonyl)biphenyl-4-yl $\alpha$ -D-mannopyranoside (10c)

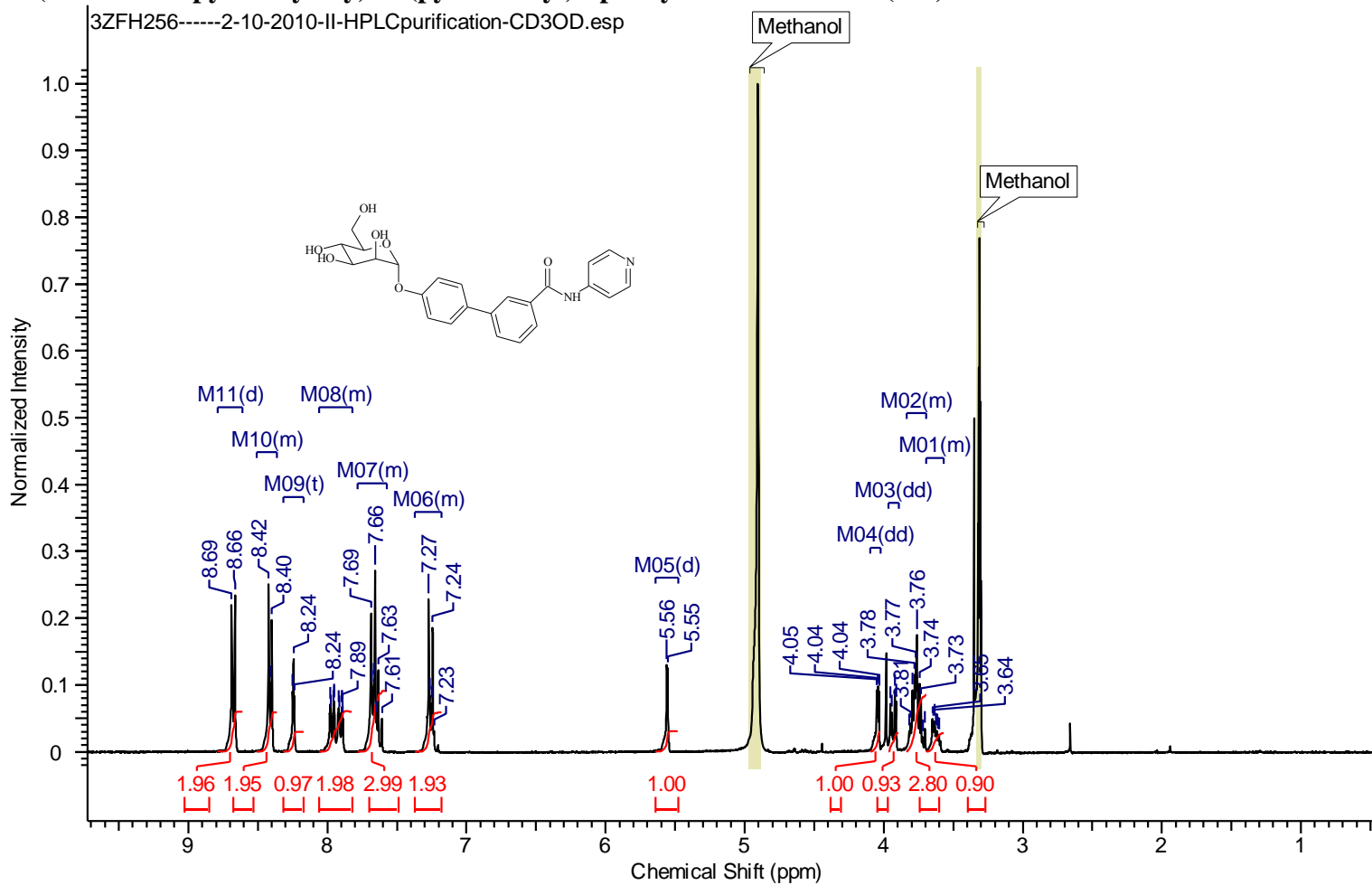


# 3'-[(4-Methylpiperazin-1-yl)carbonyl]biphenyl-4-yl $\alpha$ -D-mannopyranoside (10d)

3ZFH261-----2-10-2010-III-HPLCpurification-CD3OD.esp

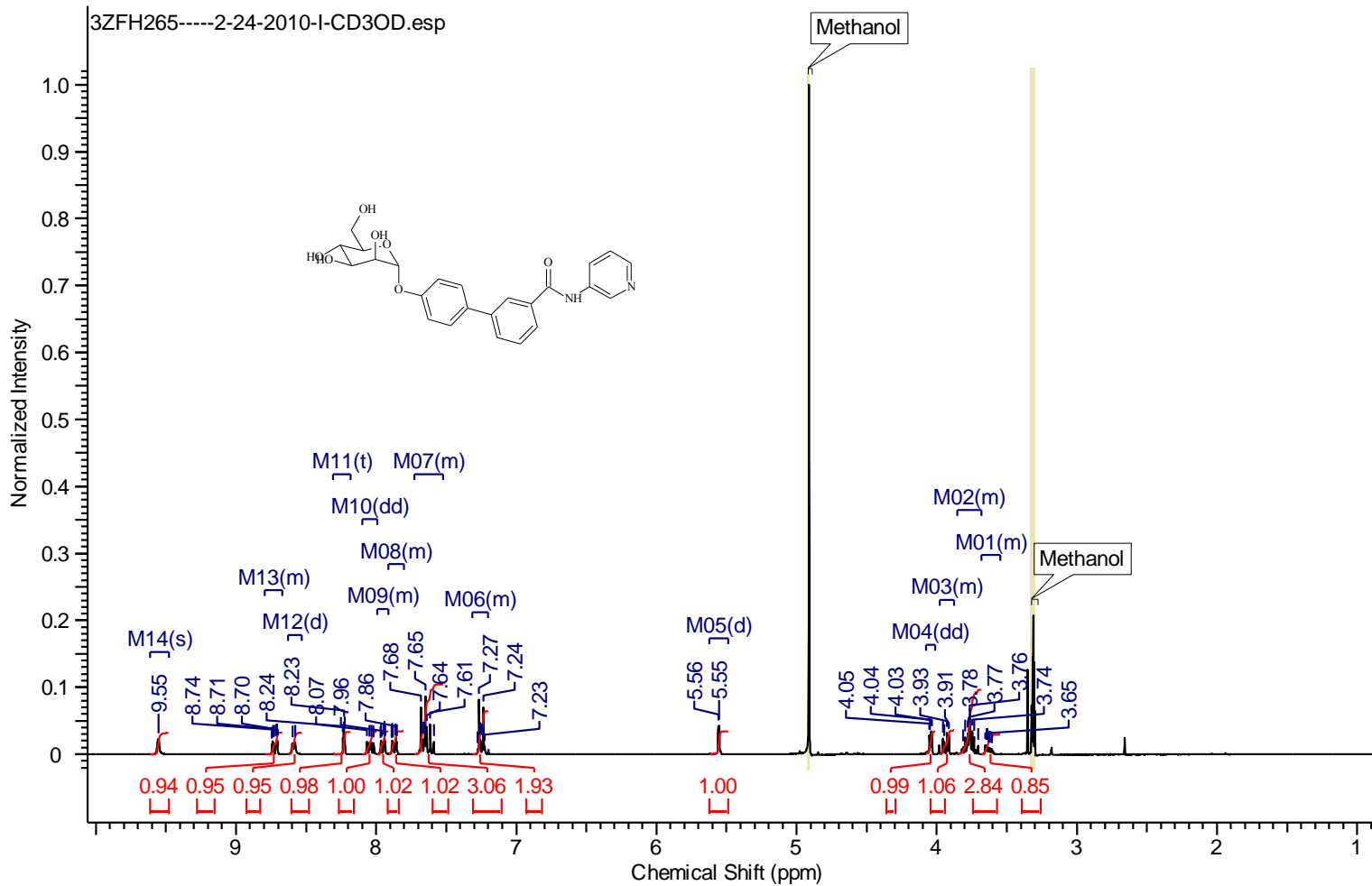


# 4'-( $\alpha$ -D-Mannopyranosyloxy)-N-(pyridin-4-yl)biphenyl-3-carboxamide (10e)

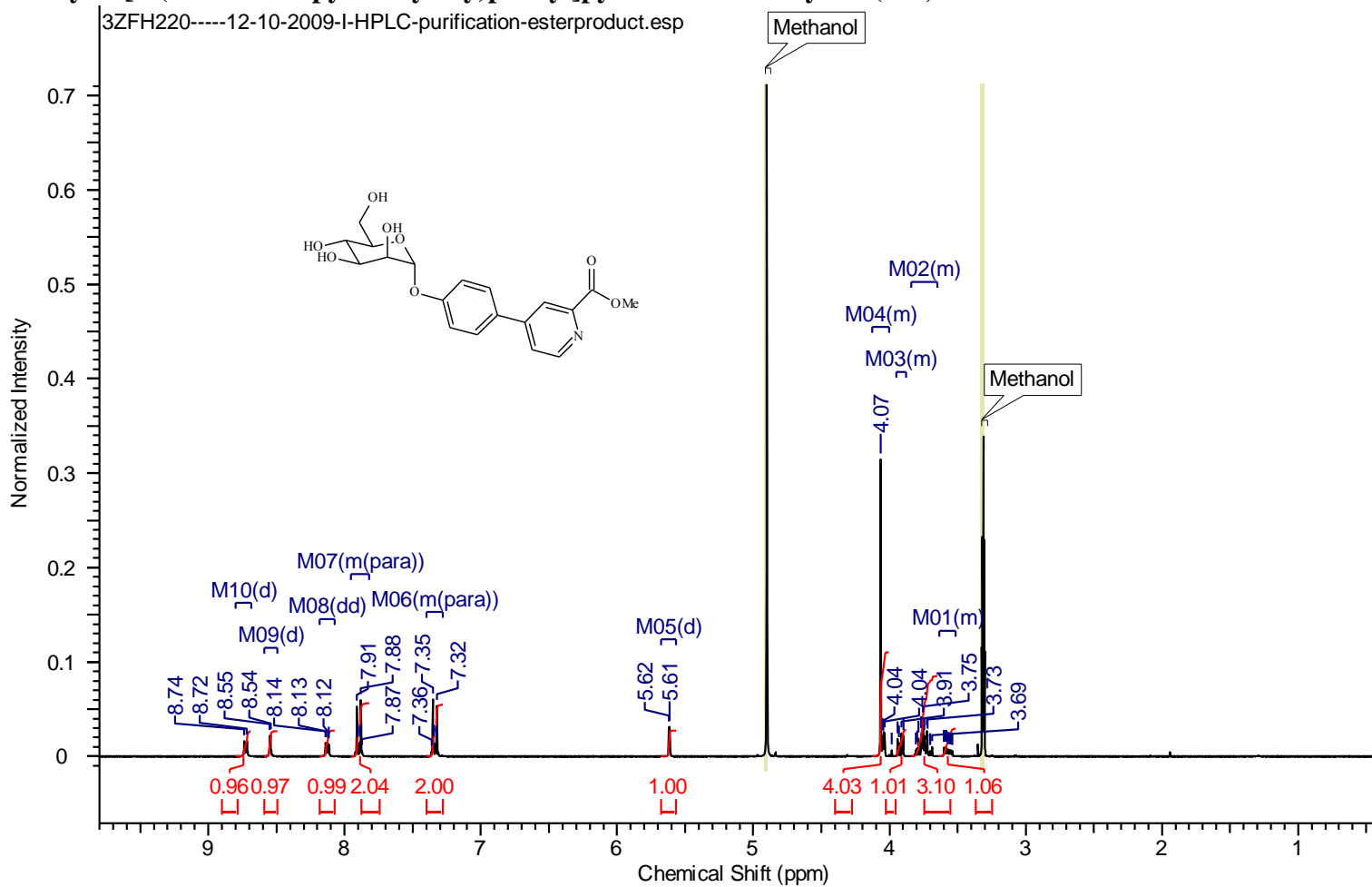




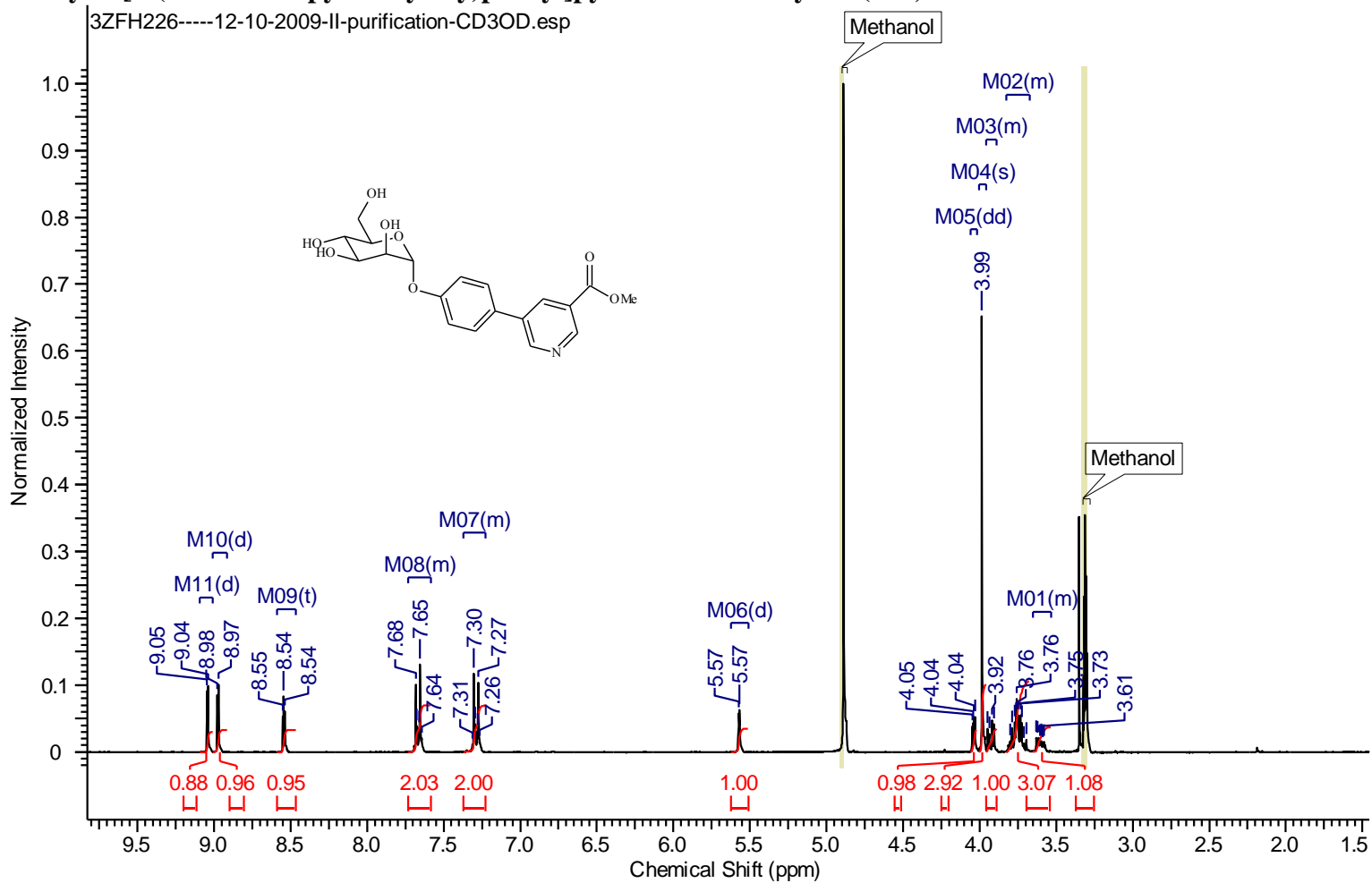
# 4'-( $\alpha$ -D-Mannopyranosyloxy)-N-(pyridin-3-yl)biphenyl-3-carboxamide (10f)



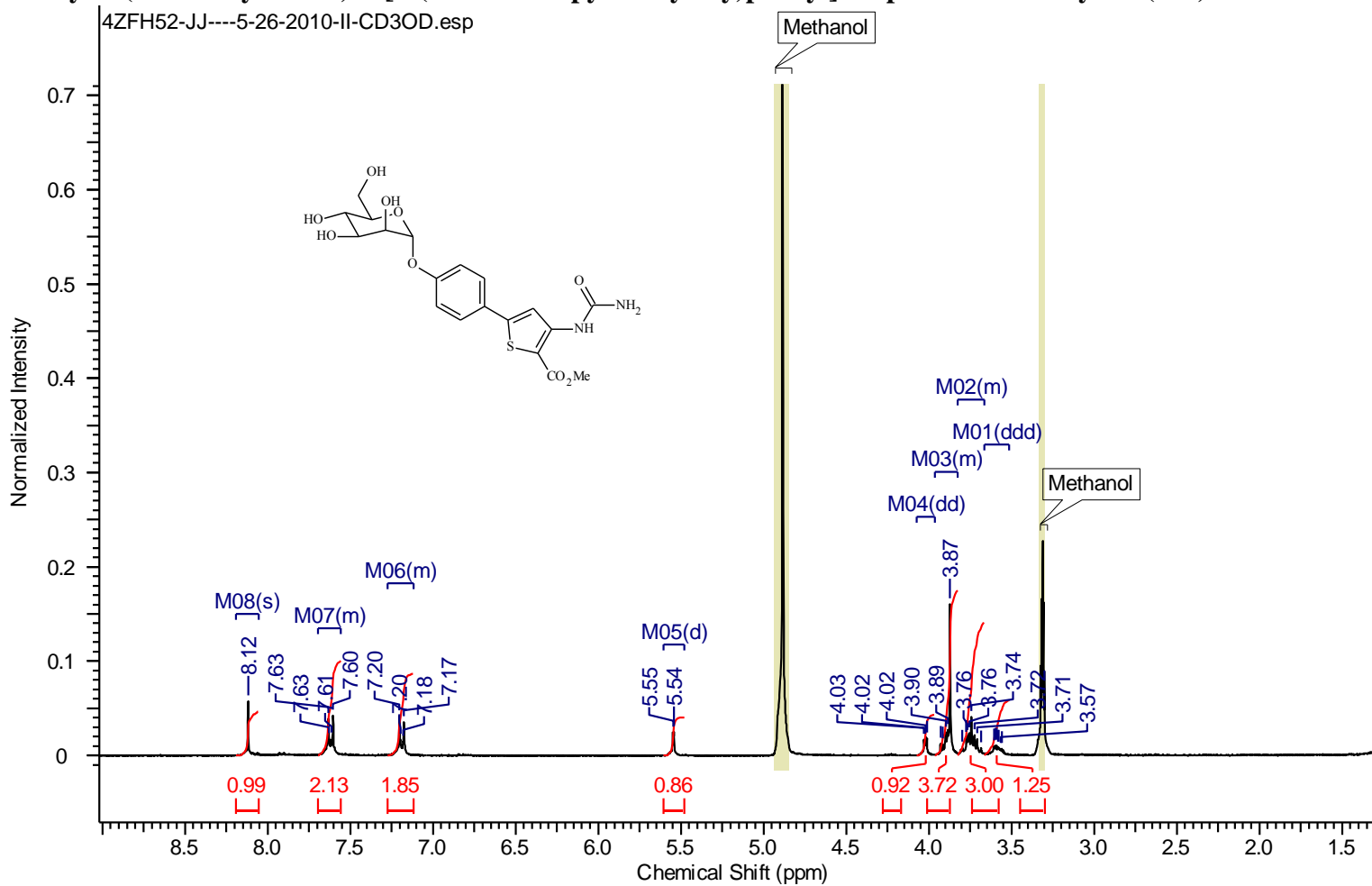
# Methyl 4-[4-( $\alpha$ -D-mannopyranosyloxy)phenyl]pyridine-2-carboxylate (12a)



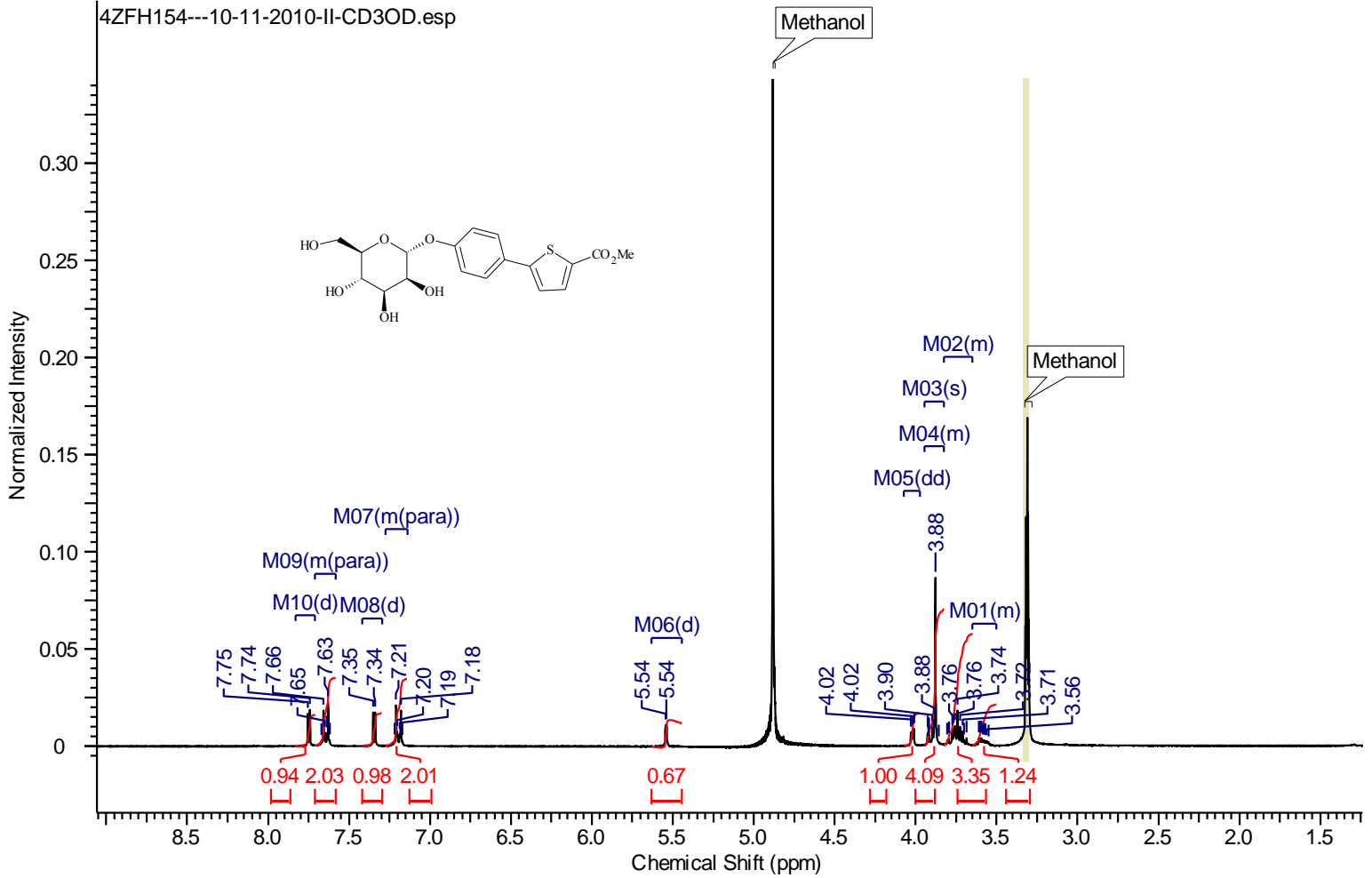
# Methyl 5-[4-( $\alpha$ -D-mannopyranosyloxy)phenyl]pyridine-3-carboxylate (12b)



# Methyl 3-(carbamoylamino)-5-[4-( $\alpha$ -D-mannopyranosyloxy)phenyl]thiophene-2-carboxylate (13a)

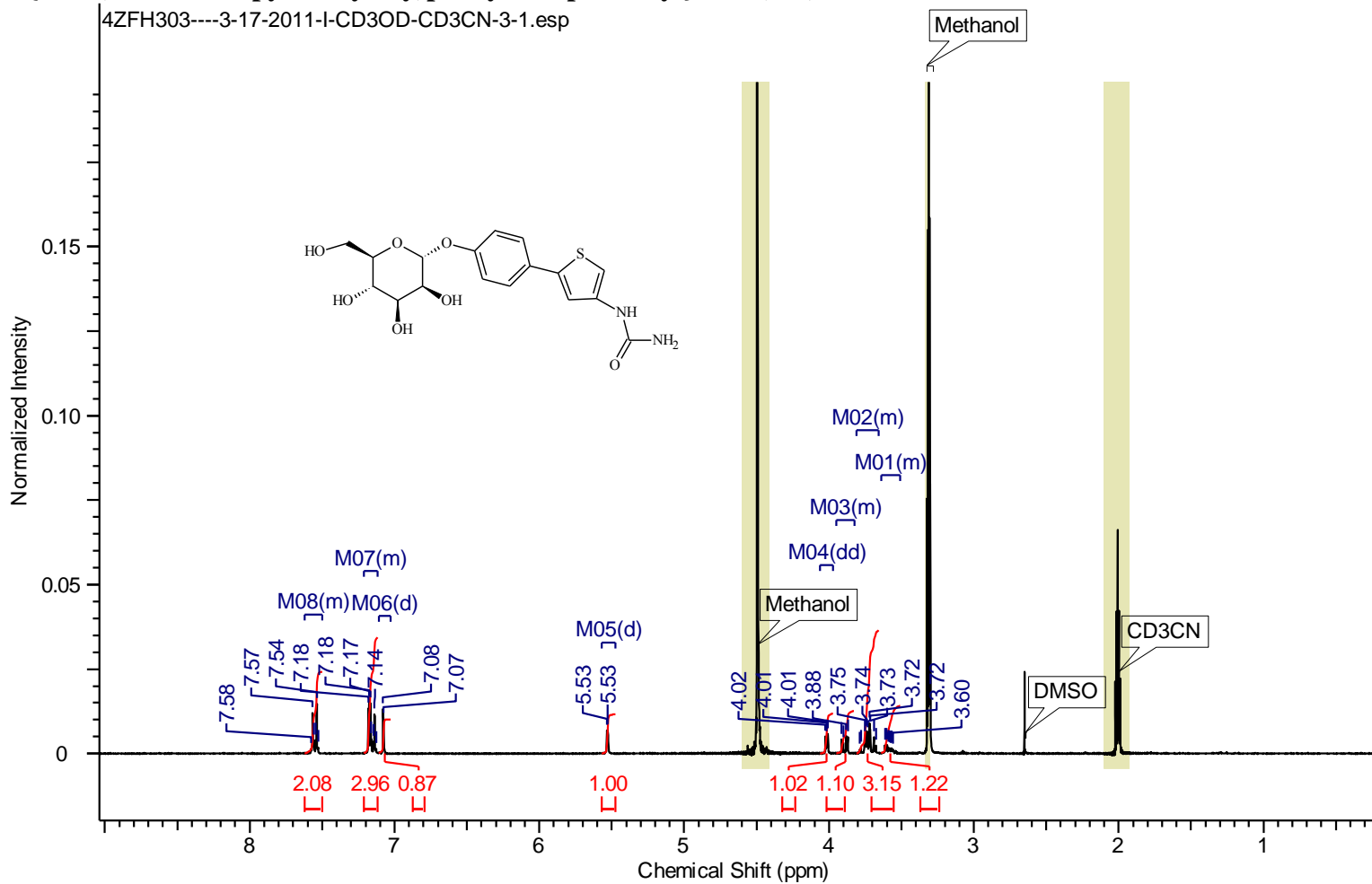


# Methyl 5-[4-( $\alpha$ -D-mannopyranosyloxy)phenyl]thiophene-2-carboxylate (13b)

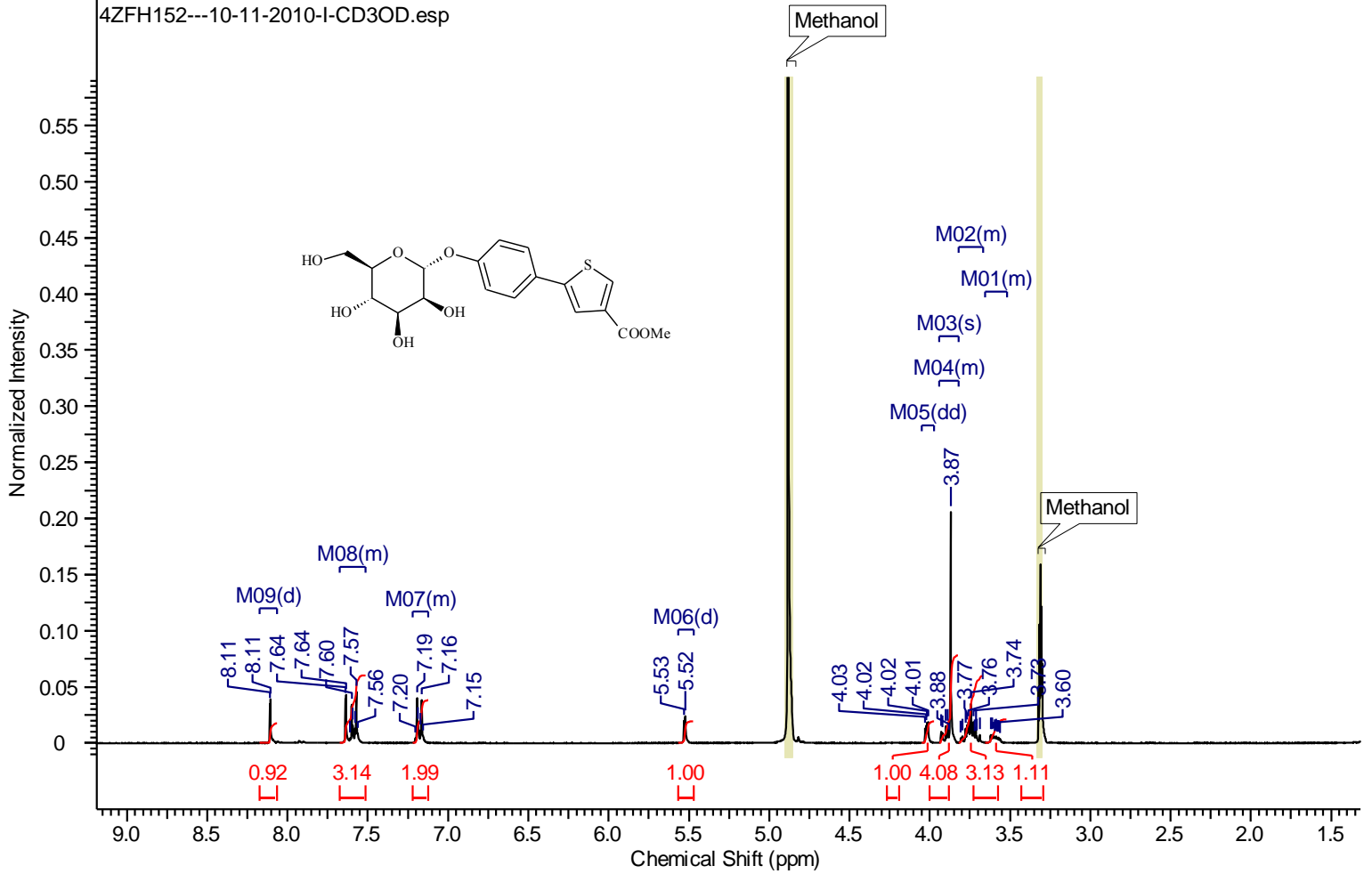


# 1-{5-[4-( $\alpha$ -D-Mannopyranosyloxy)phenyl]thiophen-3-yl}urea (13c)

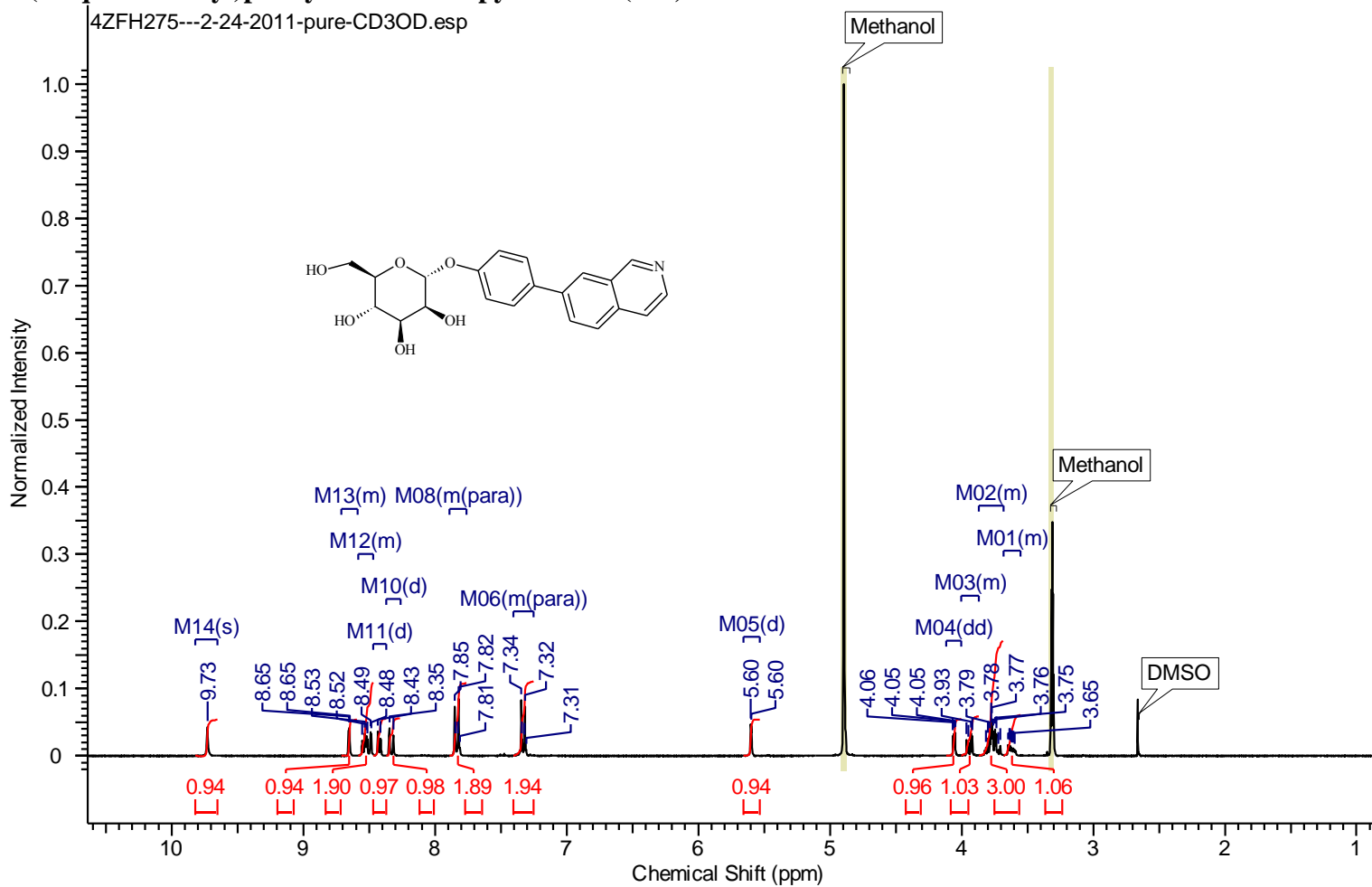
4ZFH303-----3-17-2011-I-CD3OD-CD3CN-3-1.esp



# Methyl 5-[4-( $\alpha$ -D-mannopyranosyloxy)phenyl]thiophene-3-carboxylate (13d)

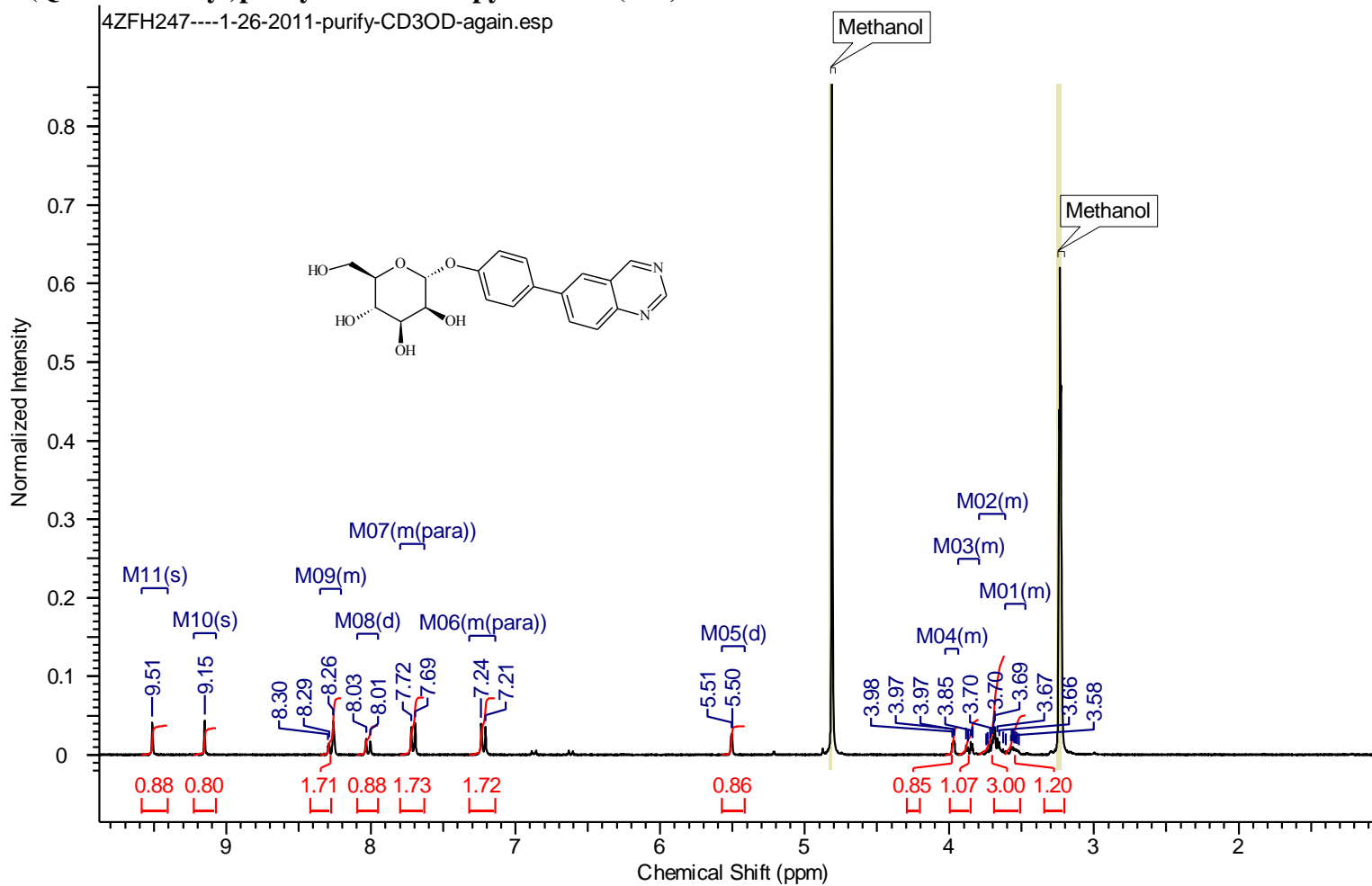


# 4-(Isoquinolin-7-yl)phenyl $\alpha$ -D-mannopyranoside (14a)

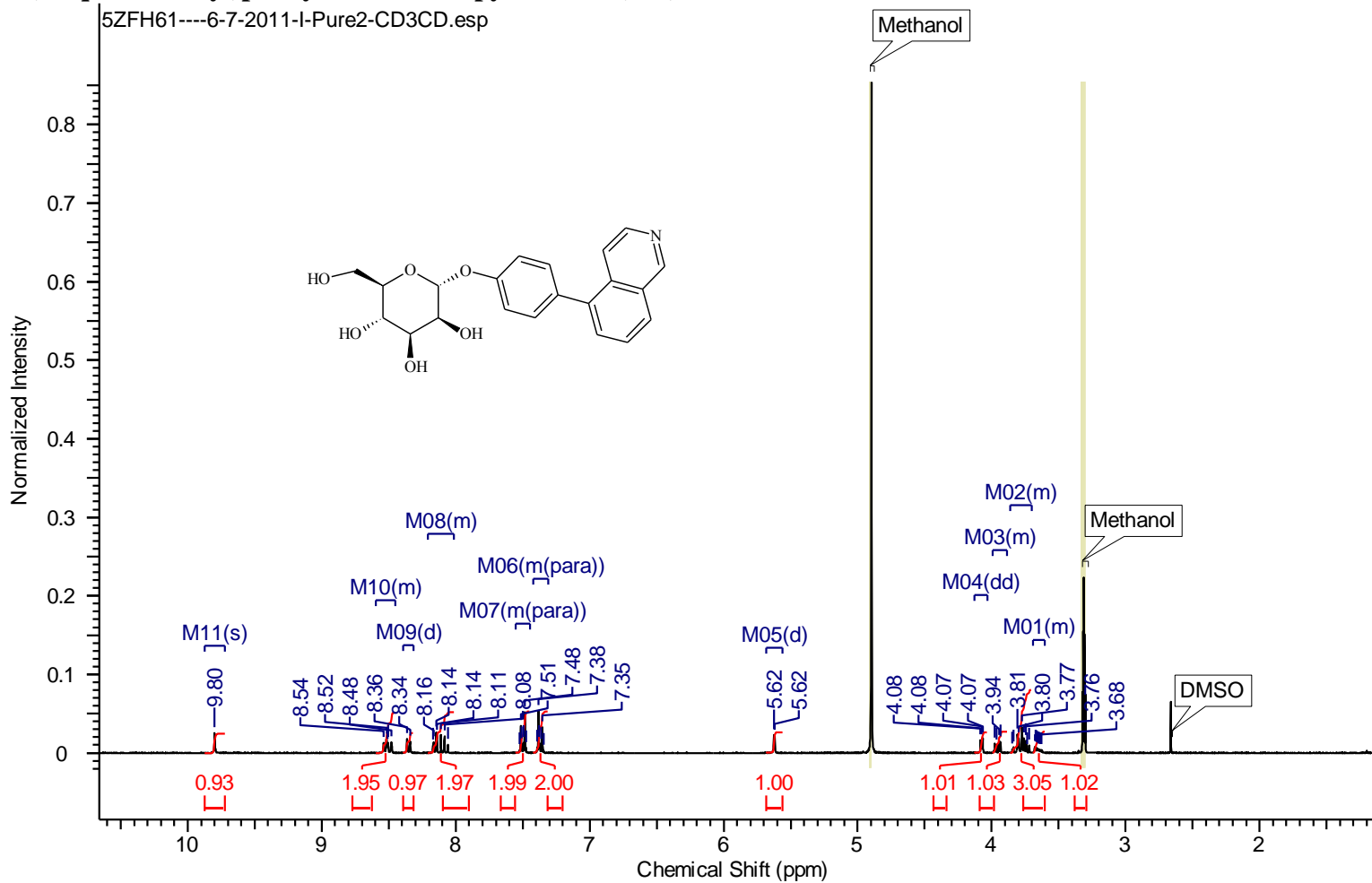




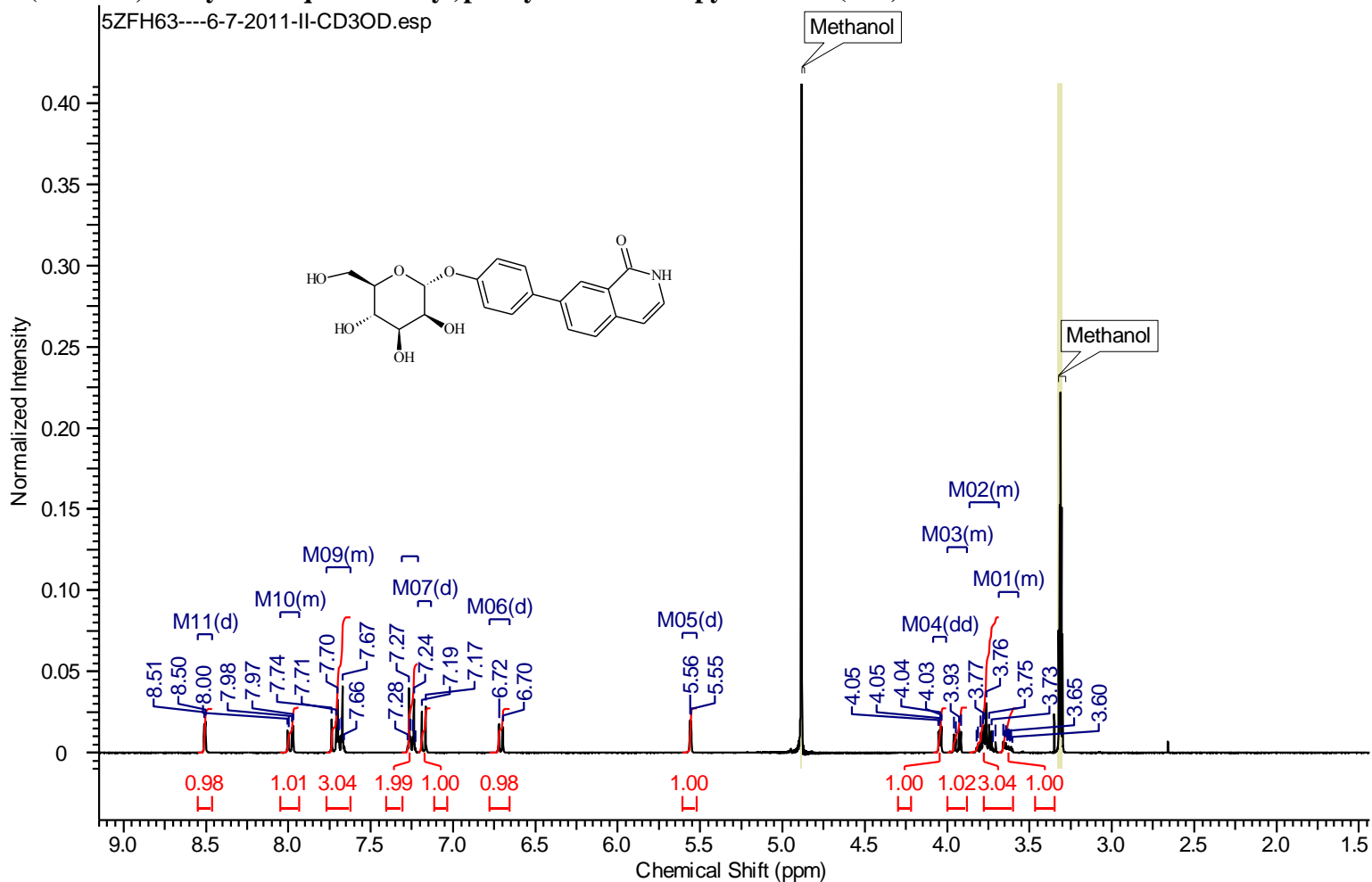
# 4-(Quinazolin-6-yl)phenyl $\alpha$ -D-mannopyranoside (14b)



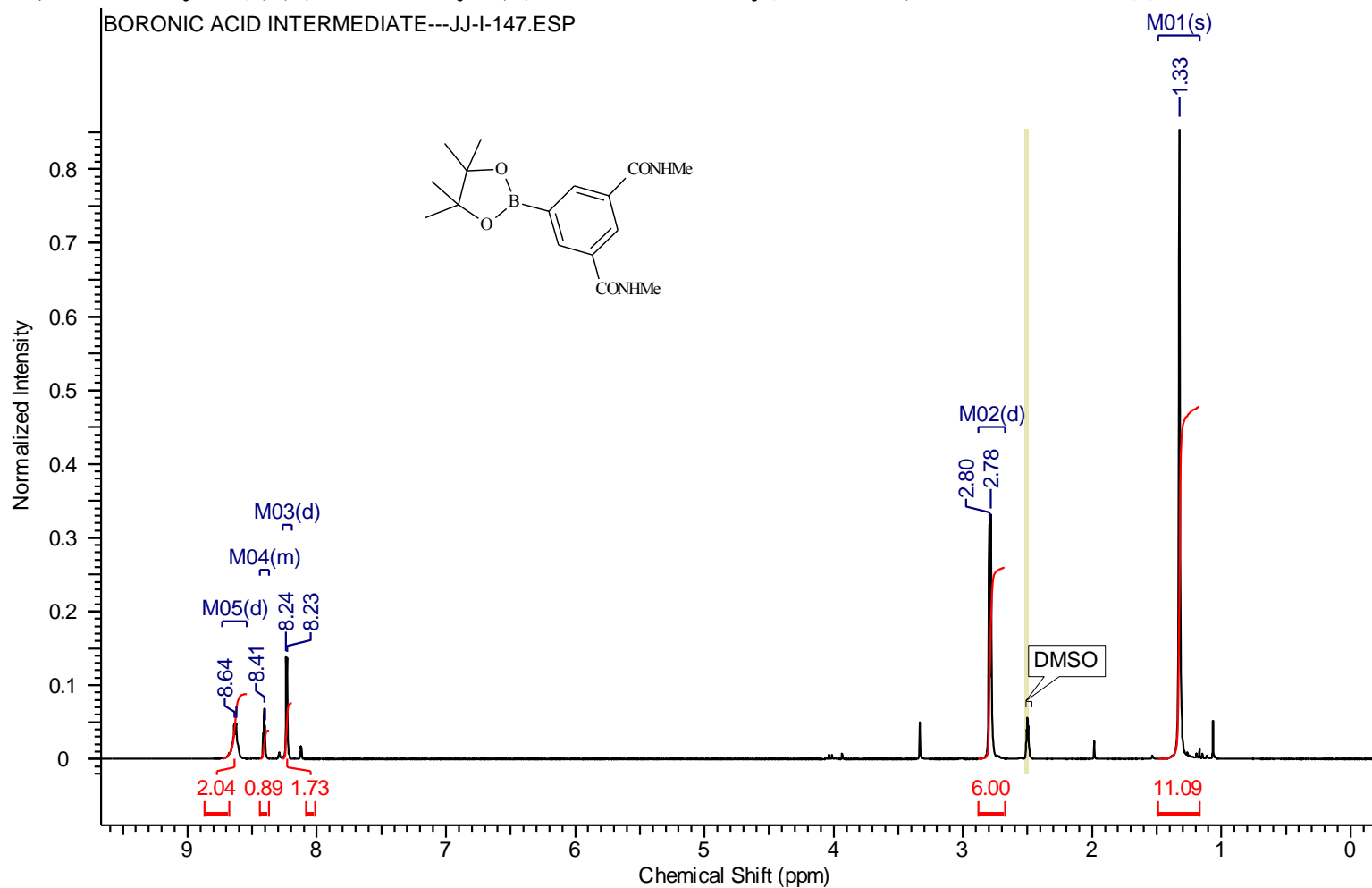
# 4-(Isoquinolin-5-yl)phenyl $\alpha$ -D-mannopyranoside (15a)



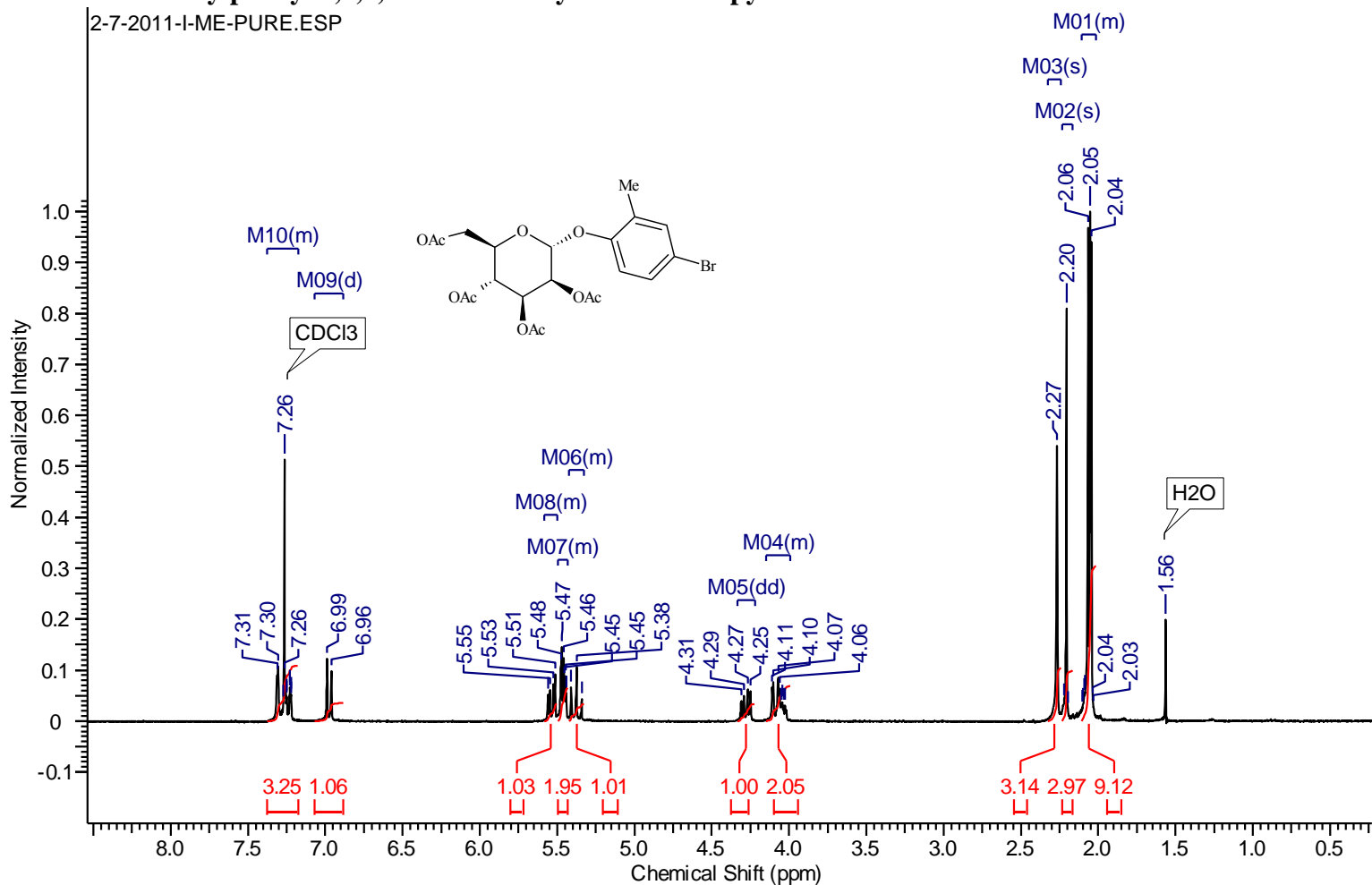
# 4-(1-Oxo-1,2-dihydroisoquinolin-7-yl)phenyl $\alpha$ -D-mannopyranoside (15b)



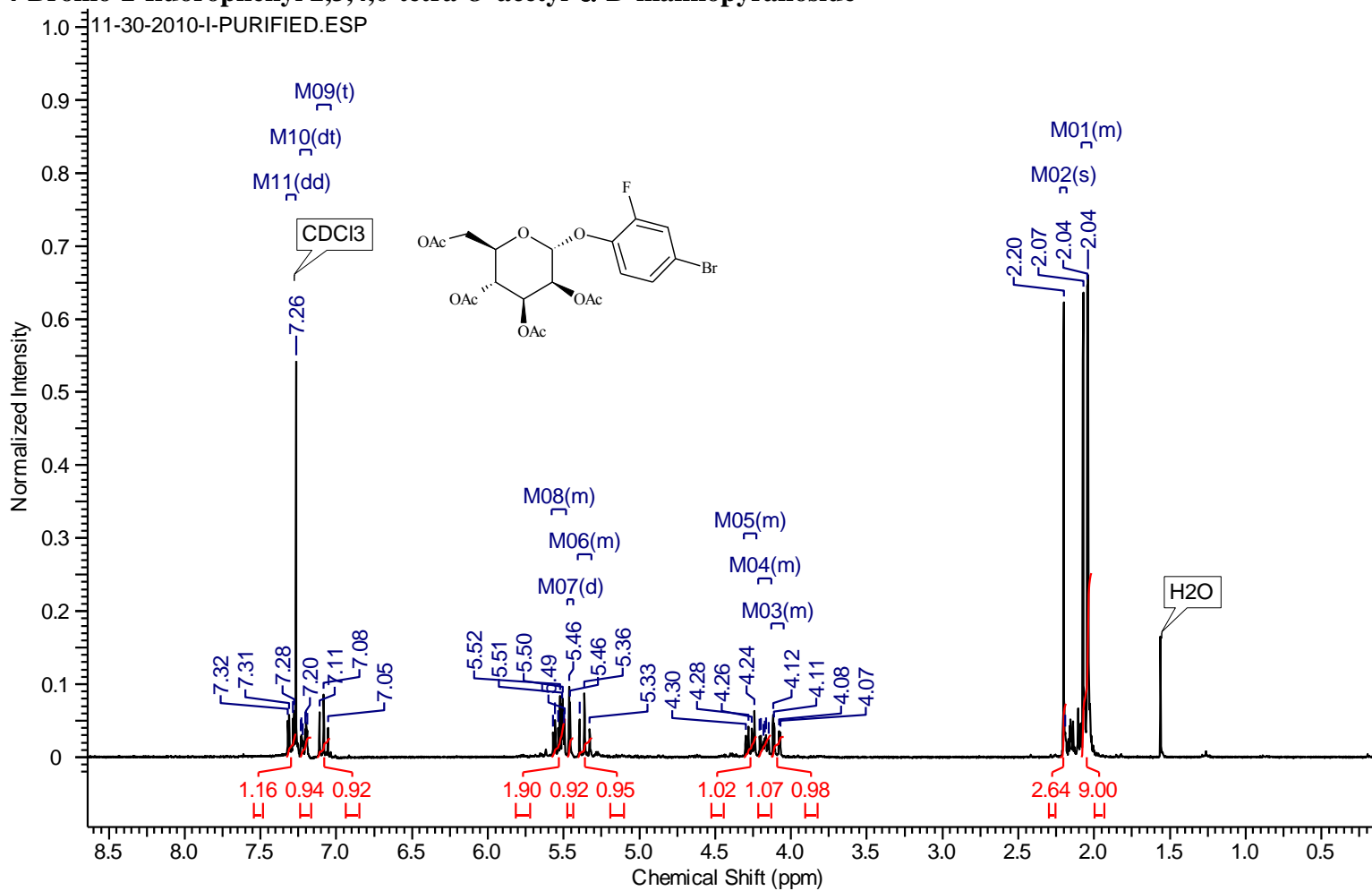
***N1,N3*-Dimethyl-5-(4,4,5,5-tetramethyl-1,3,2-dioxaborolan-2-yl)benzene-1,3-dicarboxamide (9)**



# 4-Bromo-2-methylphenyl 2,3,4,6-tetra-O-acetyl- $\alpha$ -D-mannopyranoside



# 4-Bromo-2-fluorophenyl 2,3,4,6-tetra-O-acetyl- $\alpha$ -D-mannopyranoside



7.32

7.31

7.28

7.26

7.20

7.11

7.08

7.05

5.52

5.51

5.50

5.49

5.46

5.46

5.36

5.33

4.30

4.28

4.26

4.24

4.12

4.11

4.08

4.07

2.20

2.07

2.04

2.04

1.16

0.94

0.92

1.90

0.92

0.95

1.02

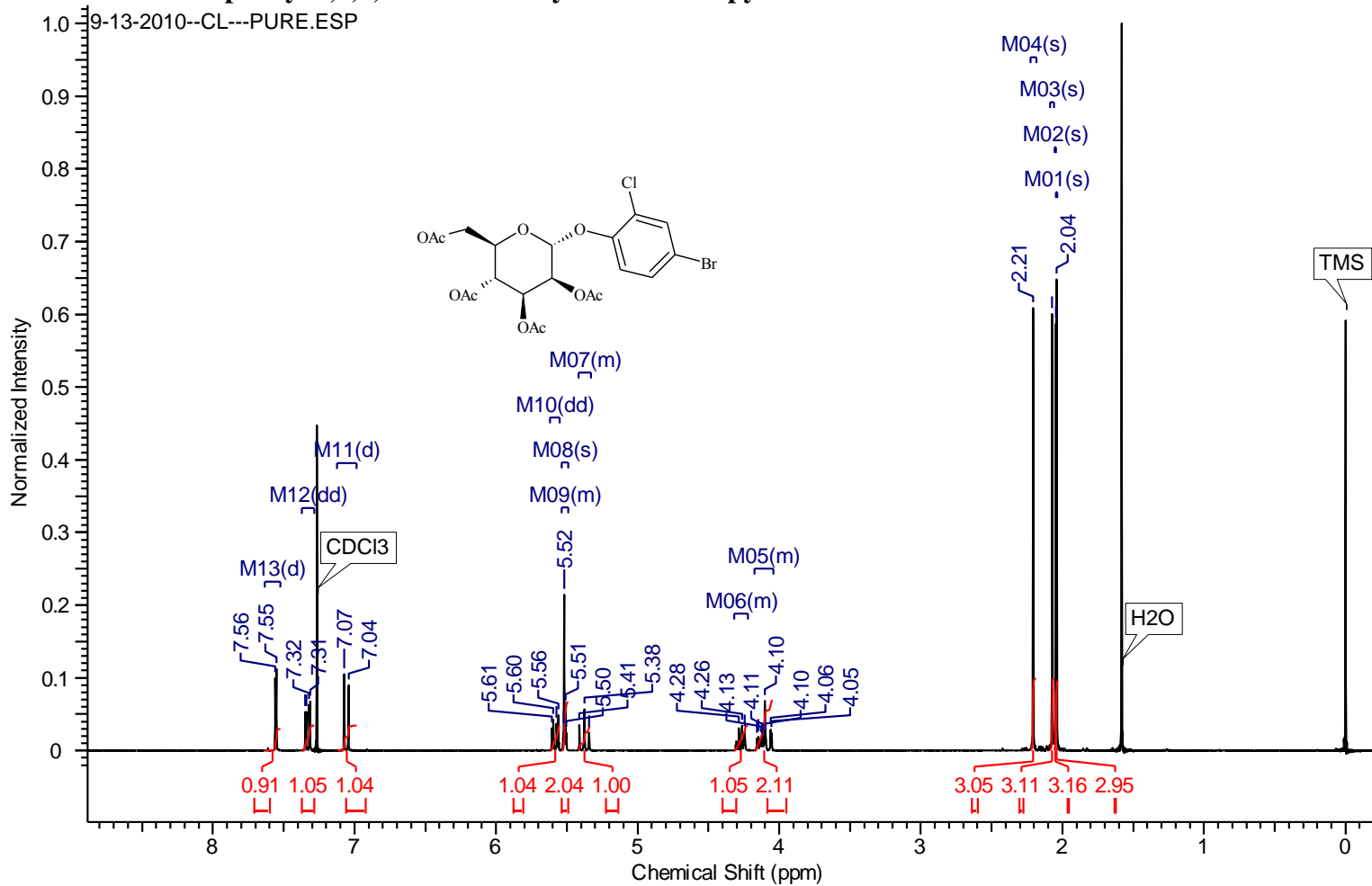
1.07

0.98

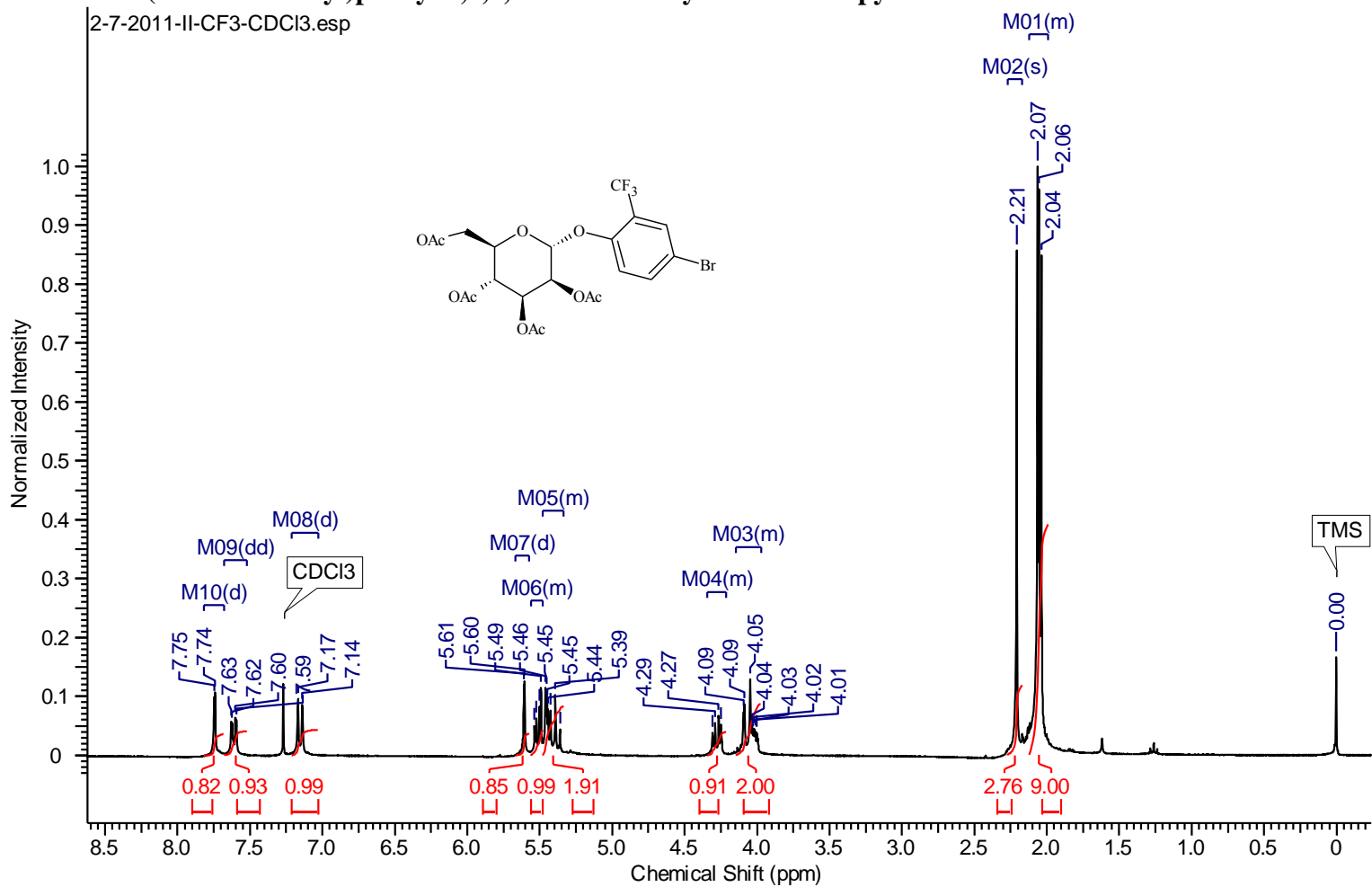
2.64

9.00

# 4-Bromo-2-chlorophenyl 2,3,4,6-tetra-O-acetyl- $\alpha$ -D-mannopyranoside

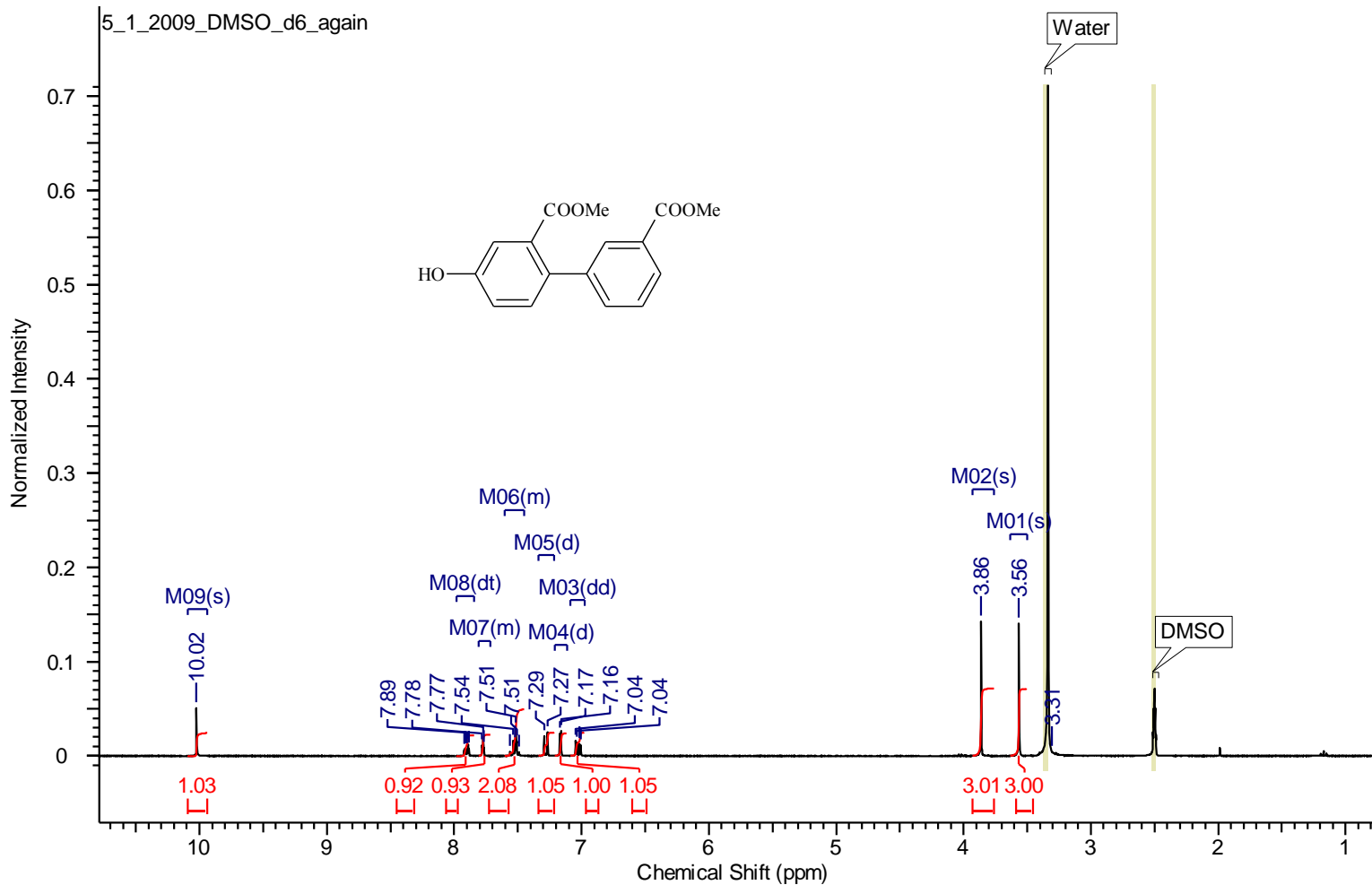


# 4-Bromo-2-(trifluoromethyl)phenyl 2,3,4,6-tetra-O-acetyl- $\alpha$ -D-mannopyranoside

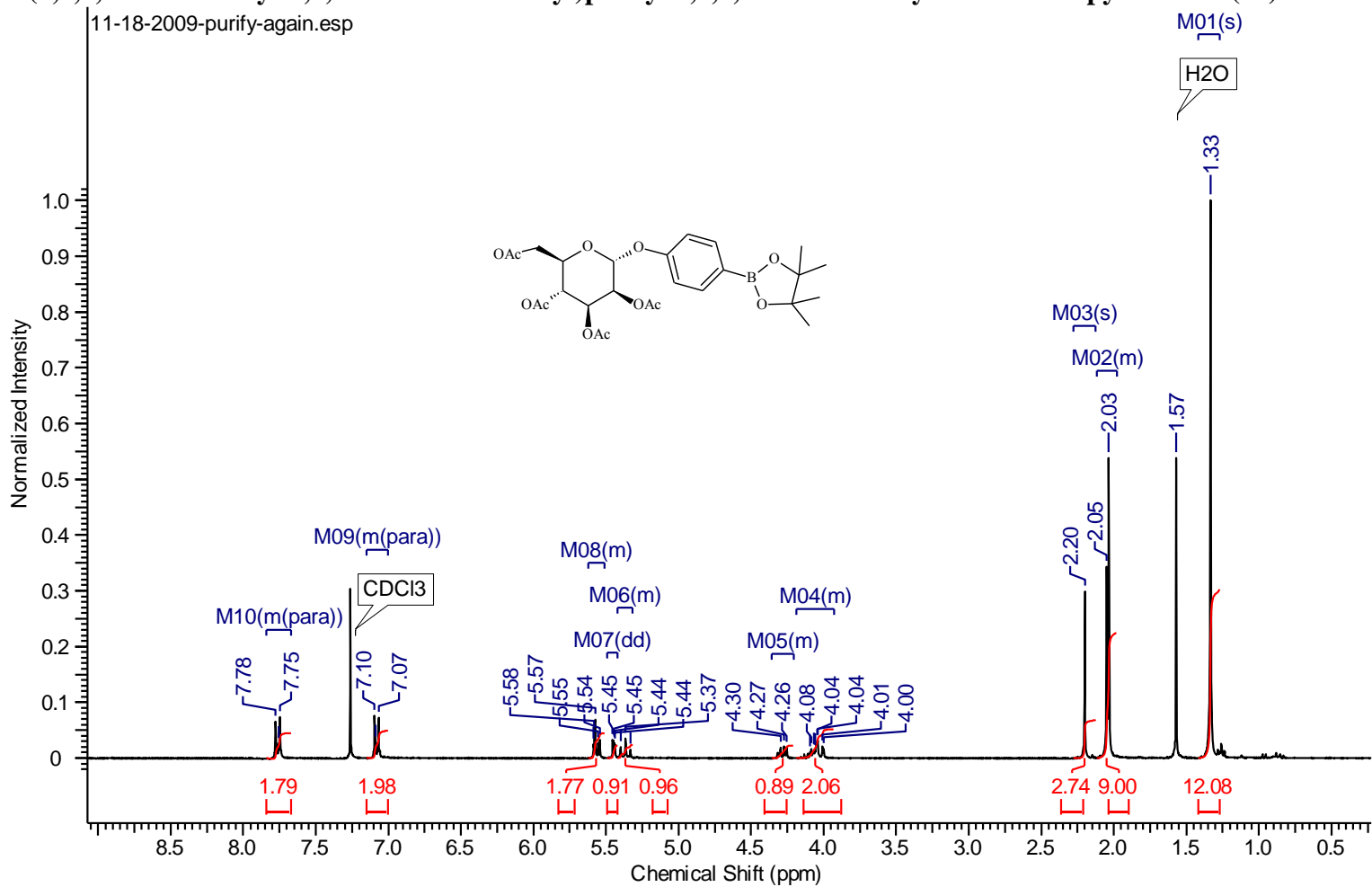




# Methyl 5-hydroxy-2-(3-methoxycarbonylphenyl)benzoate



4-(4,4,5,5-Tetramethyl-1,3,2-dioxaborolan-2-yl)phenyl 2,3,4,6-tetra-O-acetyl- $\alpha$ -D-mannopyranoside (11)



**(5-Bromo-3-thienyl)urea (16)**

