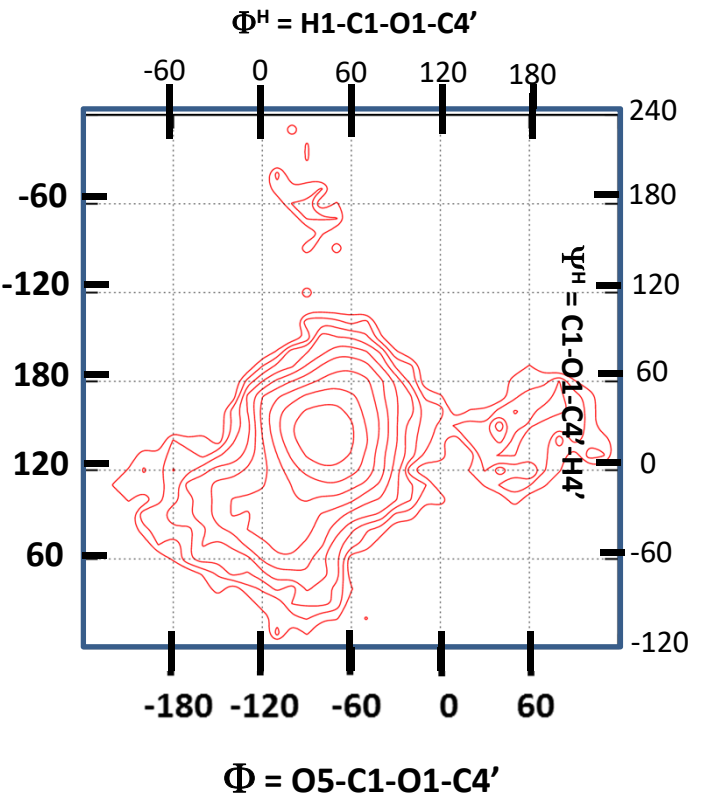
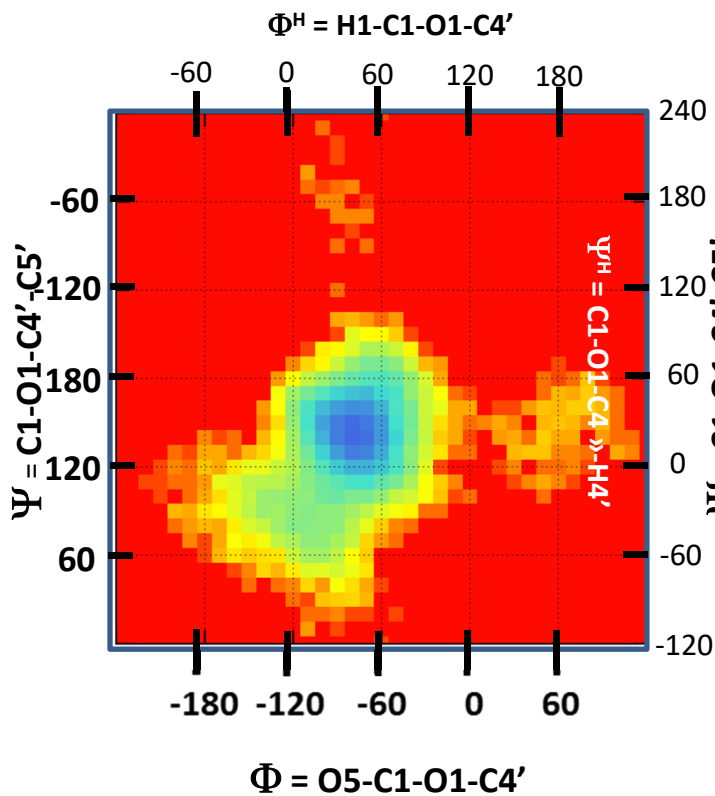
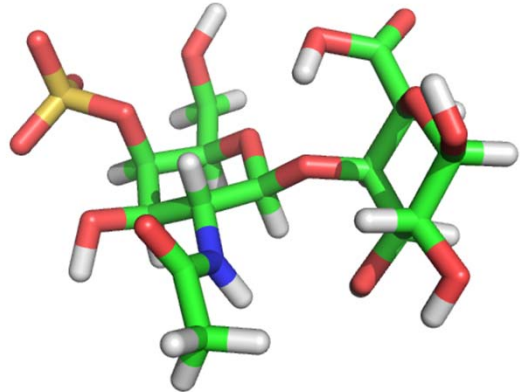
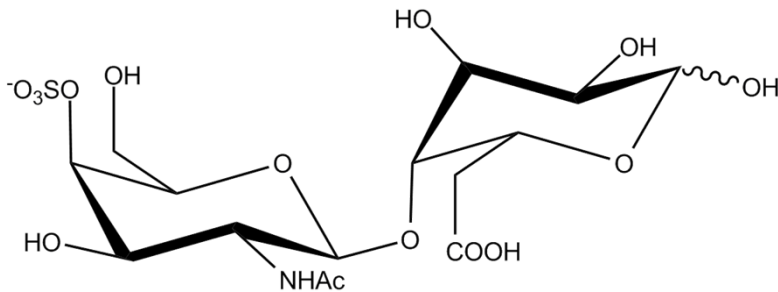


$\beta$ -D-GalpNAc<sub>4S</sub> 1-4 D-GalpA



GalNAc<sub>4S</sub>  $\beta$ 1-4 GalA



Conf 1 ( $\Phi, \Psi$ ) = -80; 150

Conf 2 ( $\Phi, \Psi$ ) = -120; 90

Conf 3 ( $\Phi, \Psi$ ) = -90; -60

Conf 4 ( $\Phi, \Psi$ ) = 60; 160

Conf 1 ( $\Phi^H, \Psi^H$ ) = 40; 30

Conf 2 ( $\Phi^H, \Psi^H$ ) = 0; -30

Conf 3 ( $\Phi^H, \Psi^H$ ) = 30; 180

Conf 4 ( $\Phi^H, \Psi^H$ ) = 180; 40