

## Electronic Supplementary Information

# Synthesis, molecular dynamics simulations, and biology of a carba-analogue of the trisaccharide repeating unit of *Streptococcus pneumoniae* 19F capsular polysaccharide<sup>†</sup>

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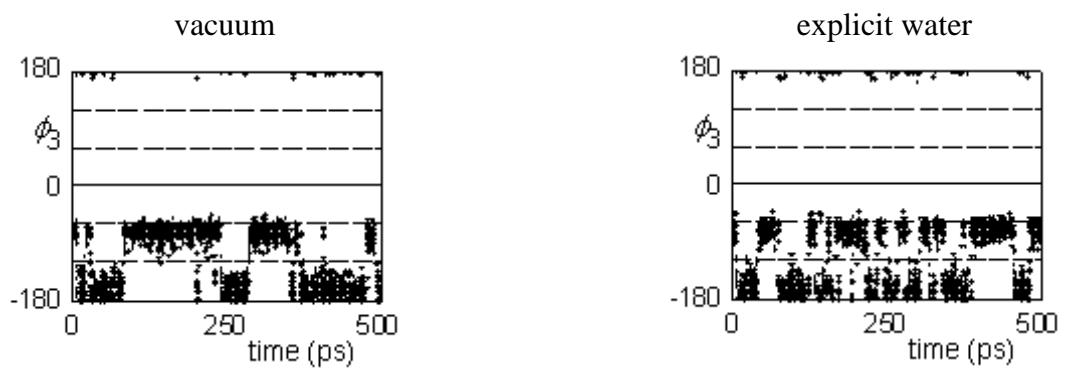
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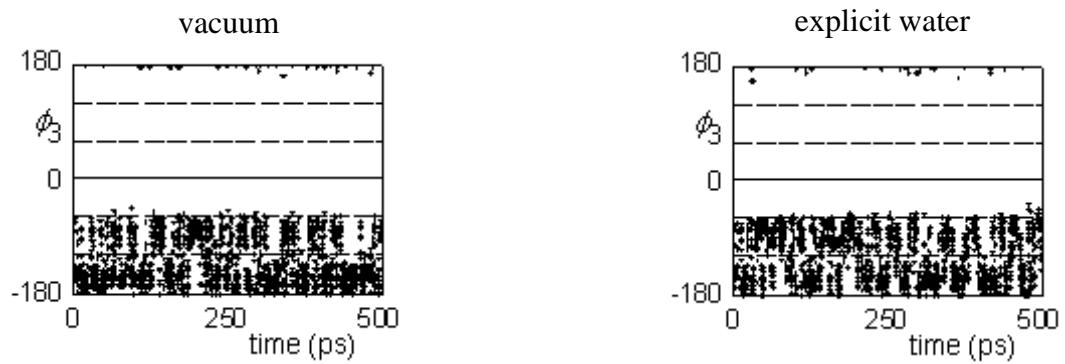
## Table of contents

Figure S1	page S2
Figure S2	page S3
<sup>13</sup> C and <sup>1</sup> H spectra of compounds <b>9, 12, 6, 17, 4</b>	page S4- S8

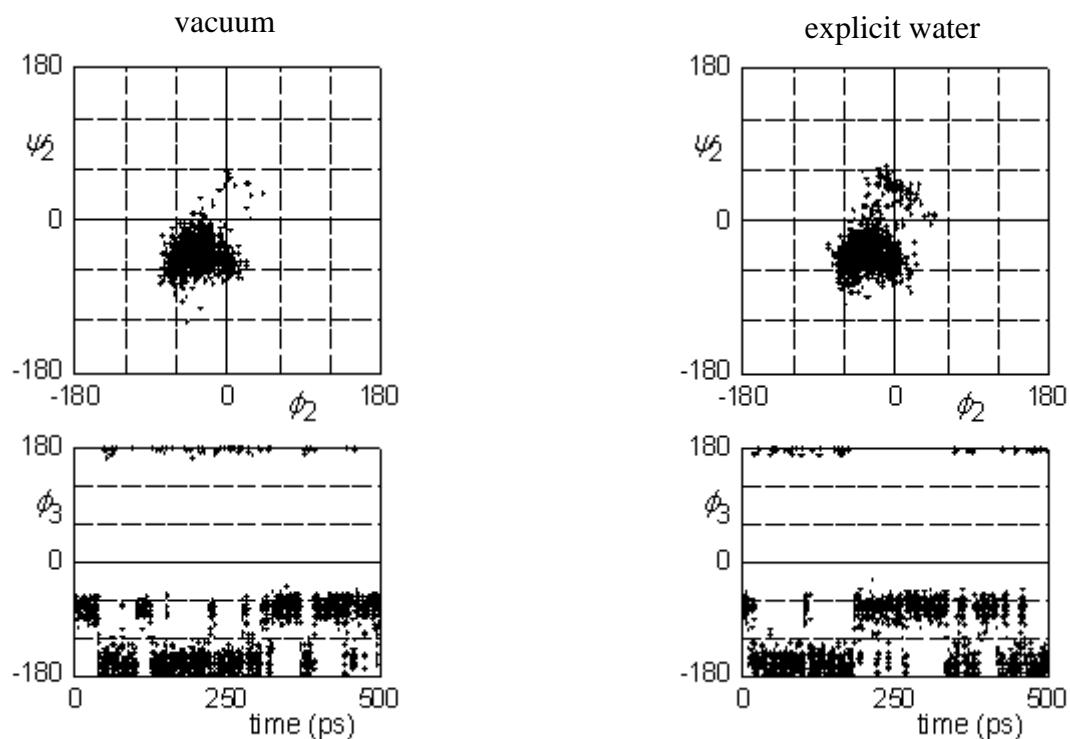
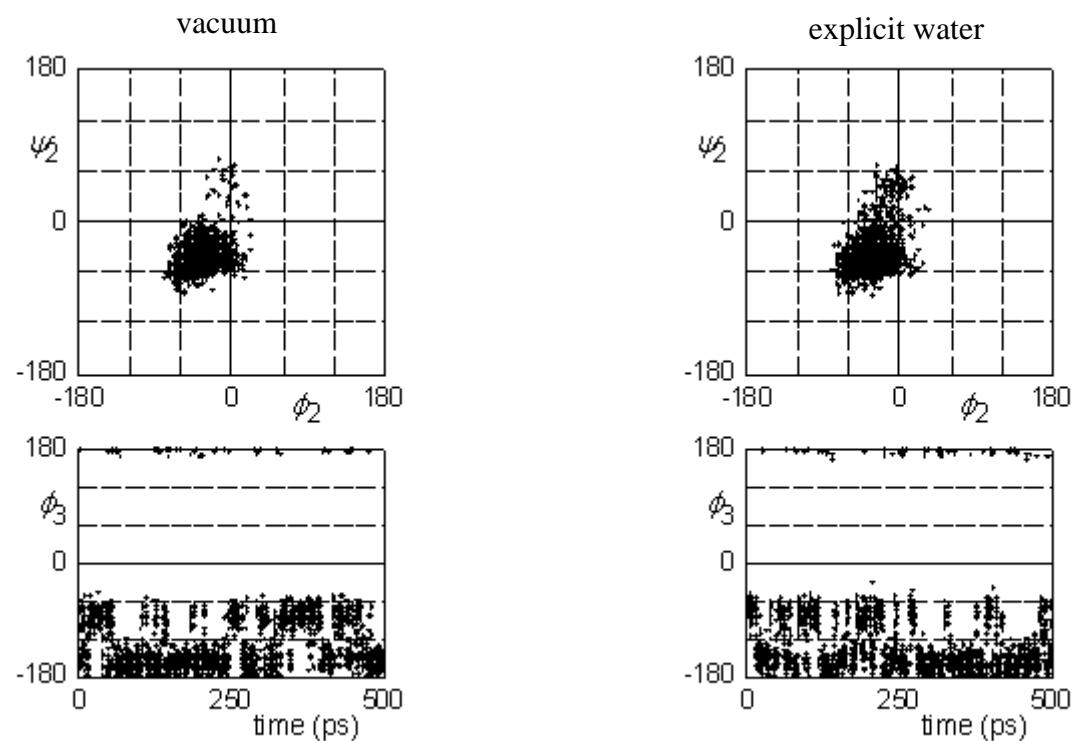
**A**



**B**



**Figure S1** History of  $\phi_3$  from the MD simulations of the monosaccharide substructures,  $\alpha$ -L-Rhap-1-OPO<sub>3</sub>H<sub>2</sub> (**A**) and the corresponding carba analogue (**B**), in vacuum (left) and using explicit water as solvent (right).

**A****B**

**Figure S2** Scatter plots on the  $\phi_2/\psi_2$  map and history of  $\phi_3$  from the MD simulations of the disaccharide substructures,  $\alpha$ -D-GlcP-(1 $\rightarrow$ 2)- $\alpha$ -L-Rhap-1-OPO<sub>3</sub>H<sub>2</sub> (**A**) and the corresponding carba analogue (**B**), in vacuum (left) and using explicit water as solvent (right).

