

Supplementary Material for
Electron Transfer Dissociation of Milk Oligosaccharides
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Running title: ETD of milk oligosaccharides

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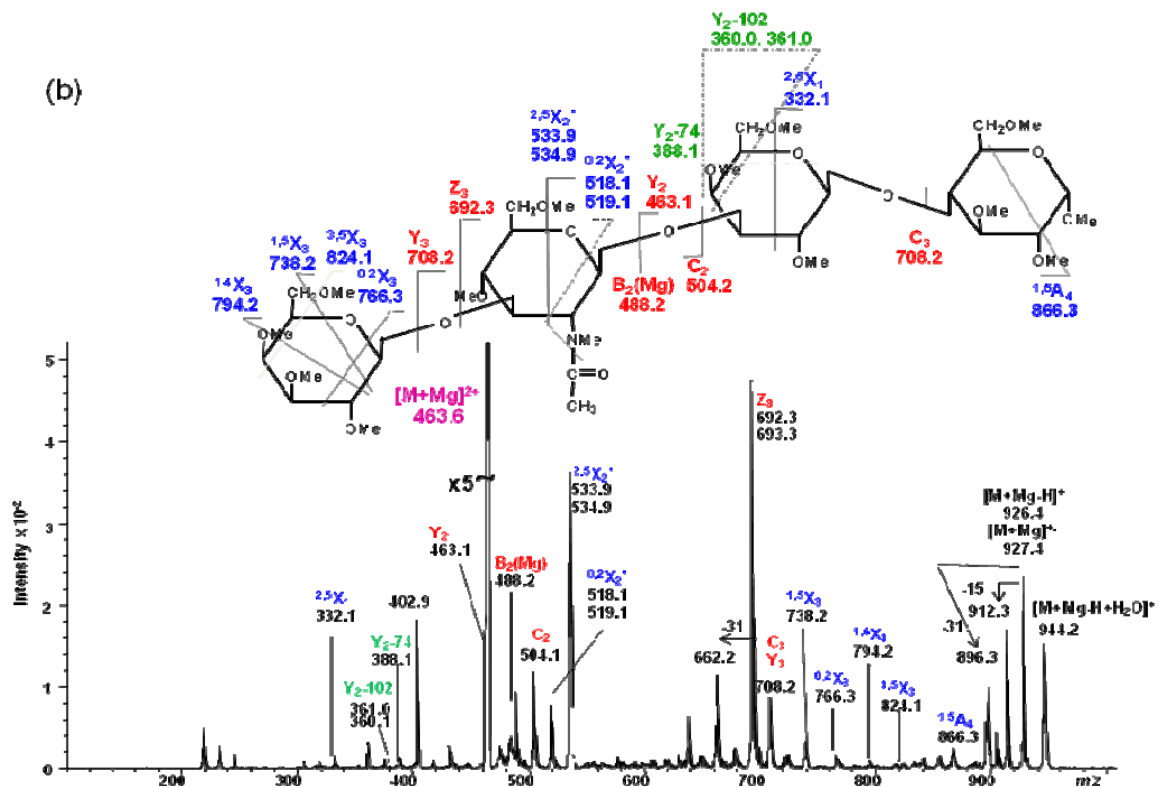
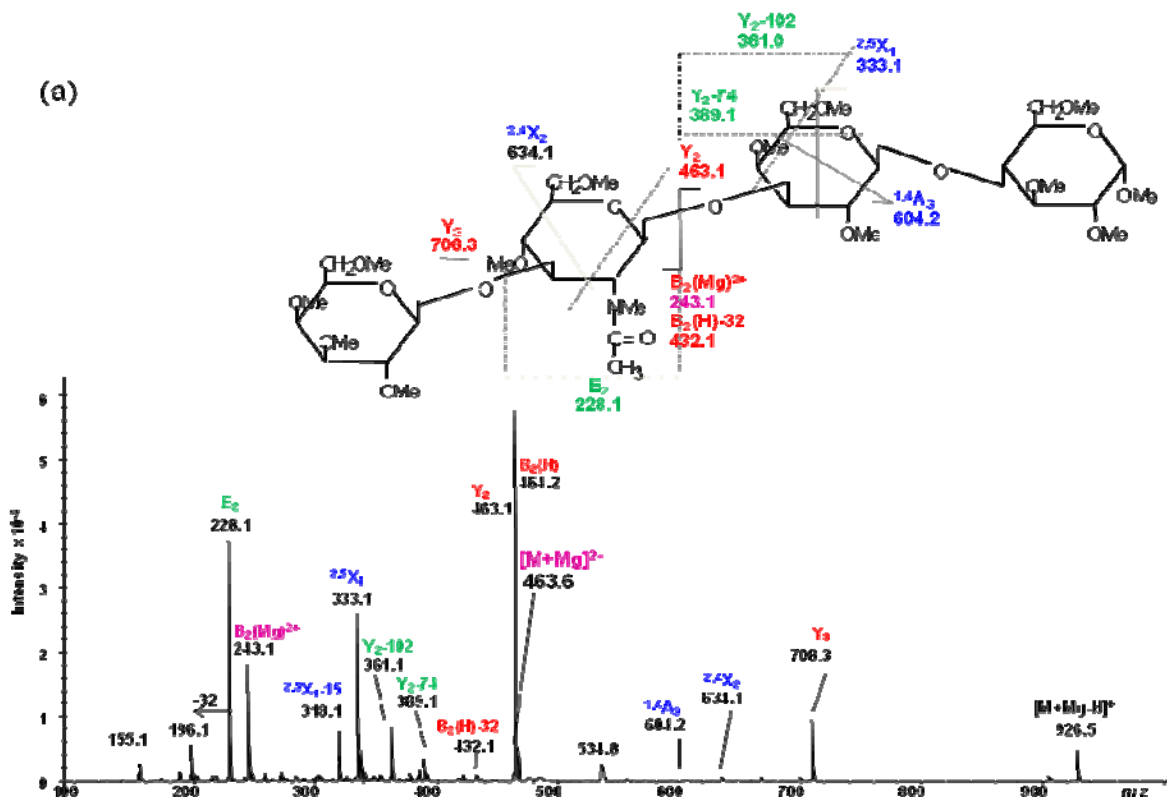
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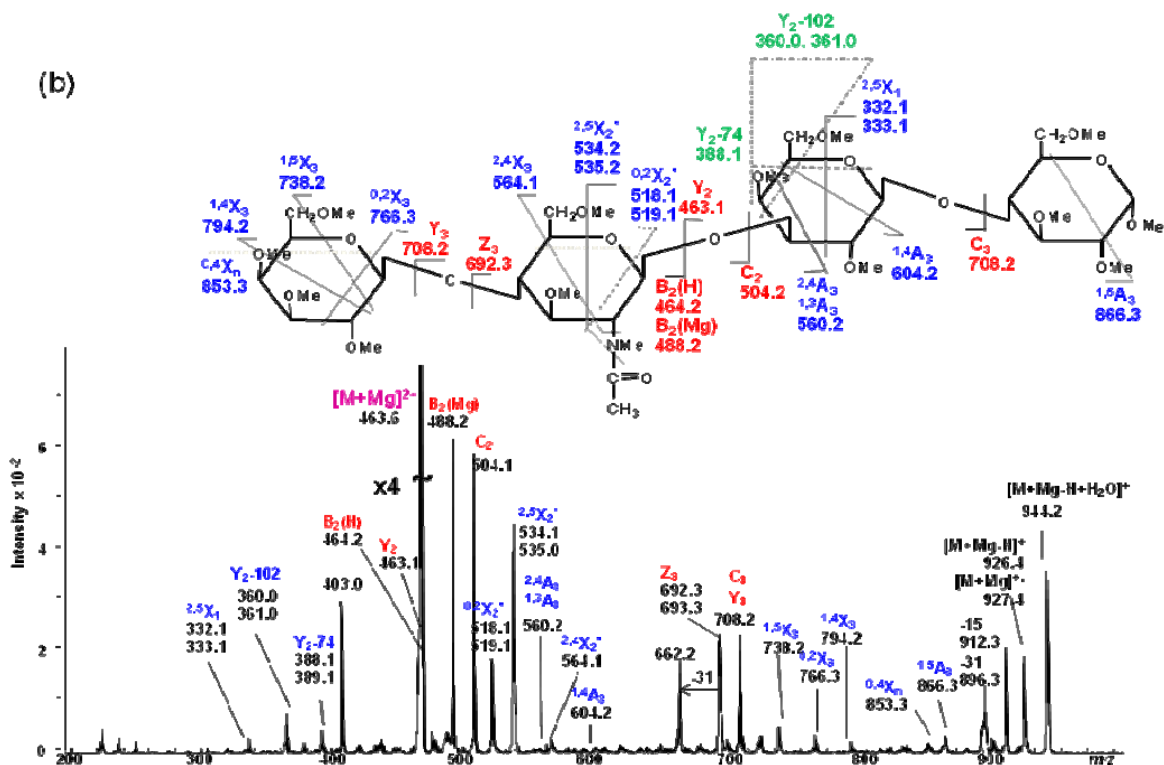
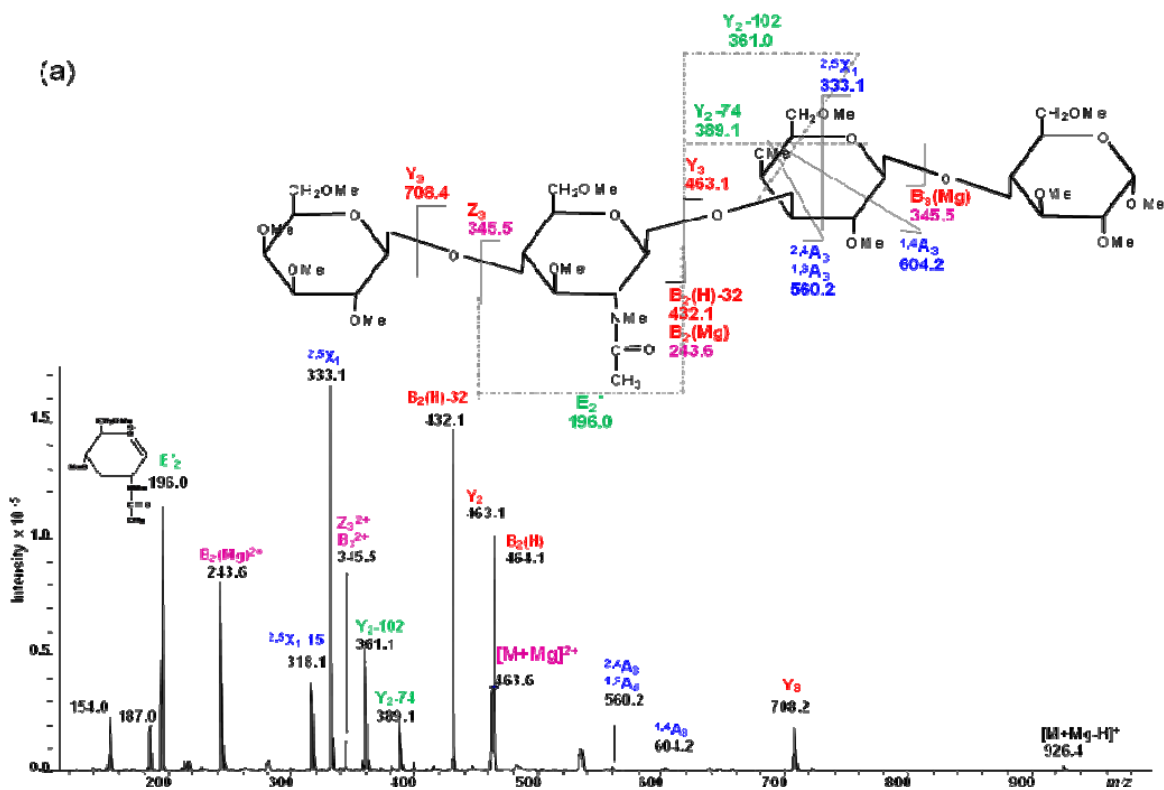
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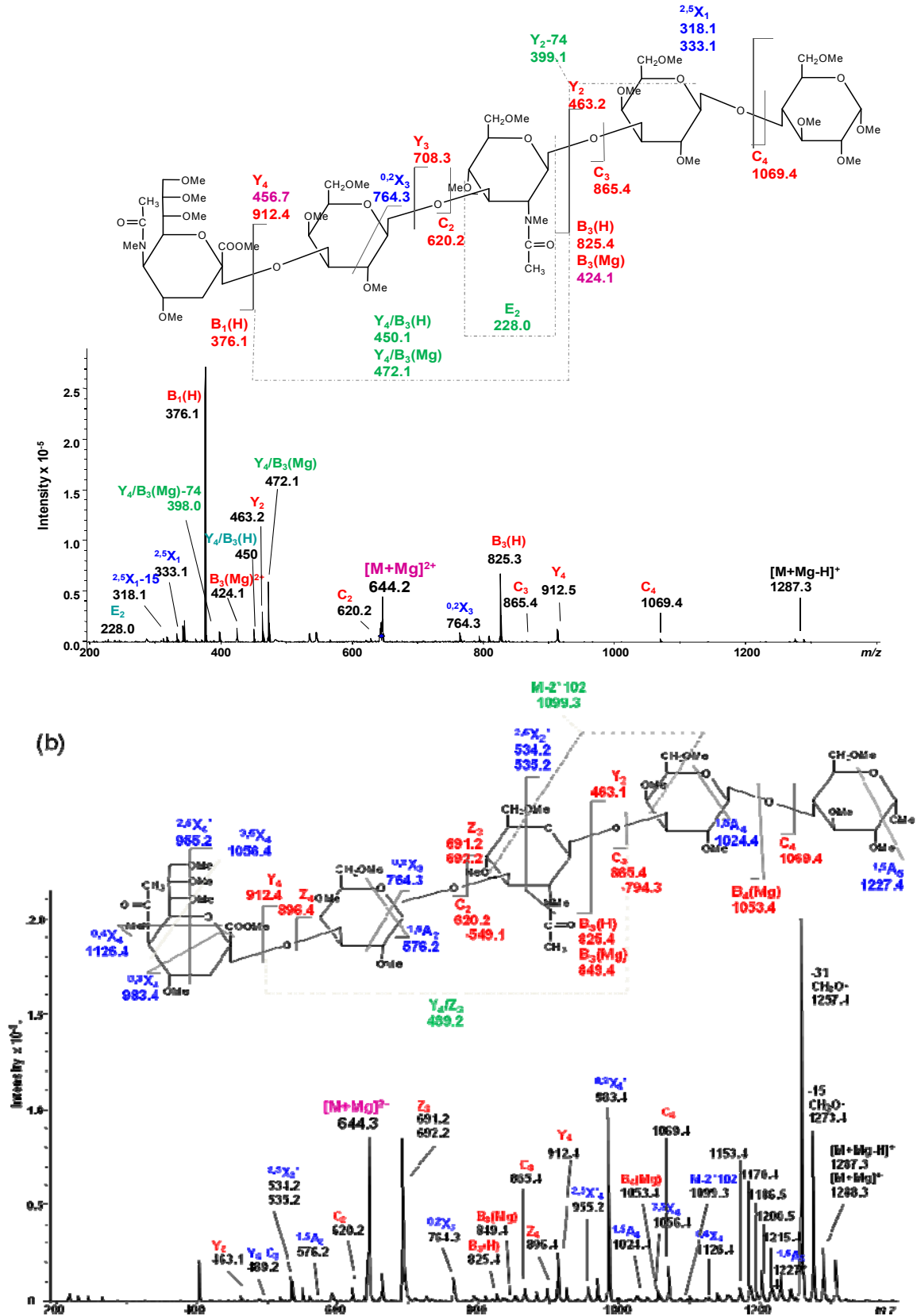
1. (a) CID and (b) ETD fragmentation of permethylated LNT $[M + Mg]^{2+}$ m/z 463.6



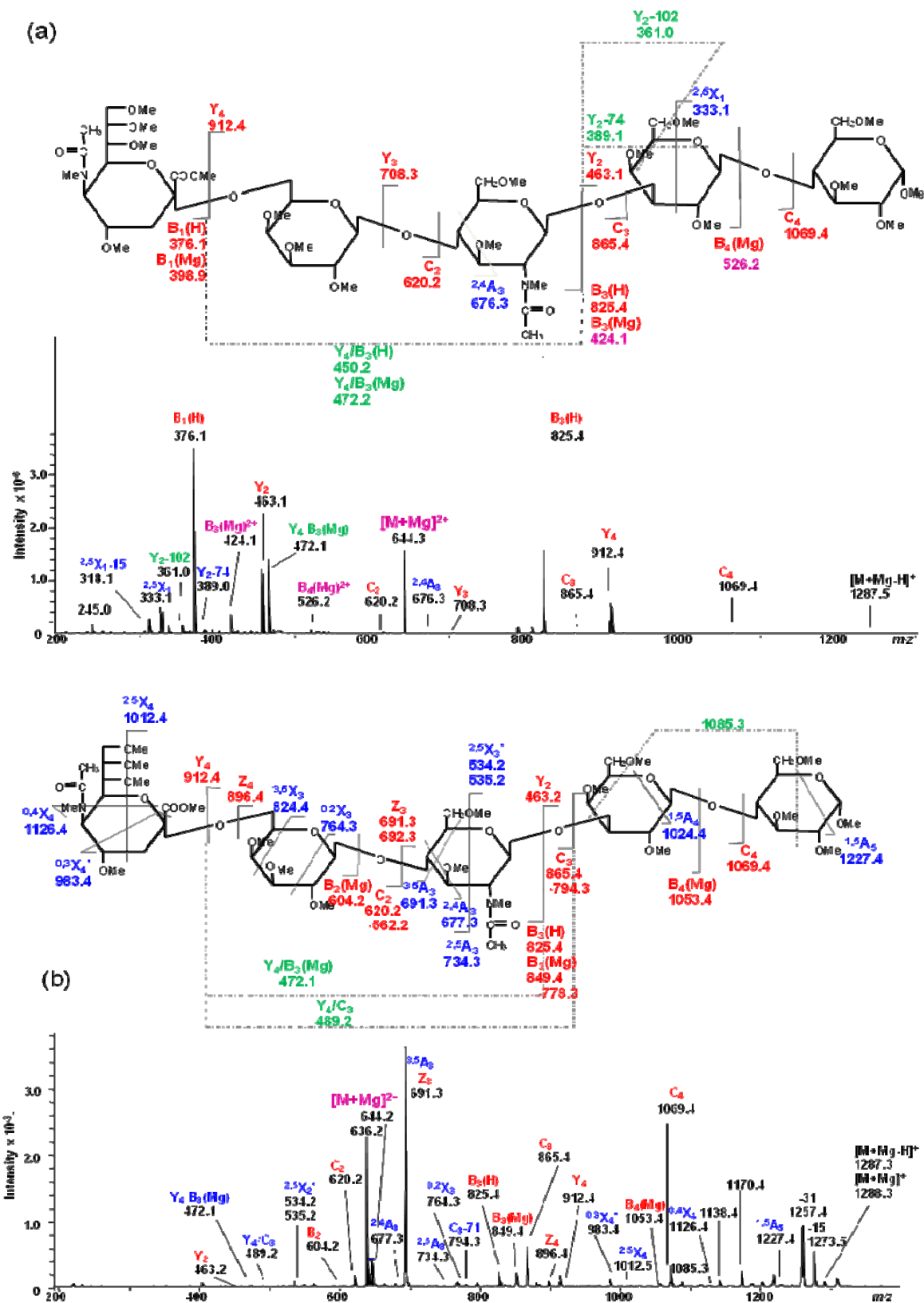
2. (a) CID and (b) ETD fragmentation of permethylated LNnT $[M + Mg]^{2+}$ m/z 463.6



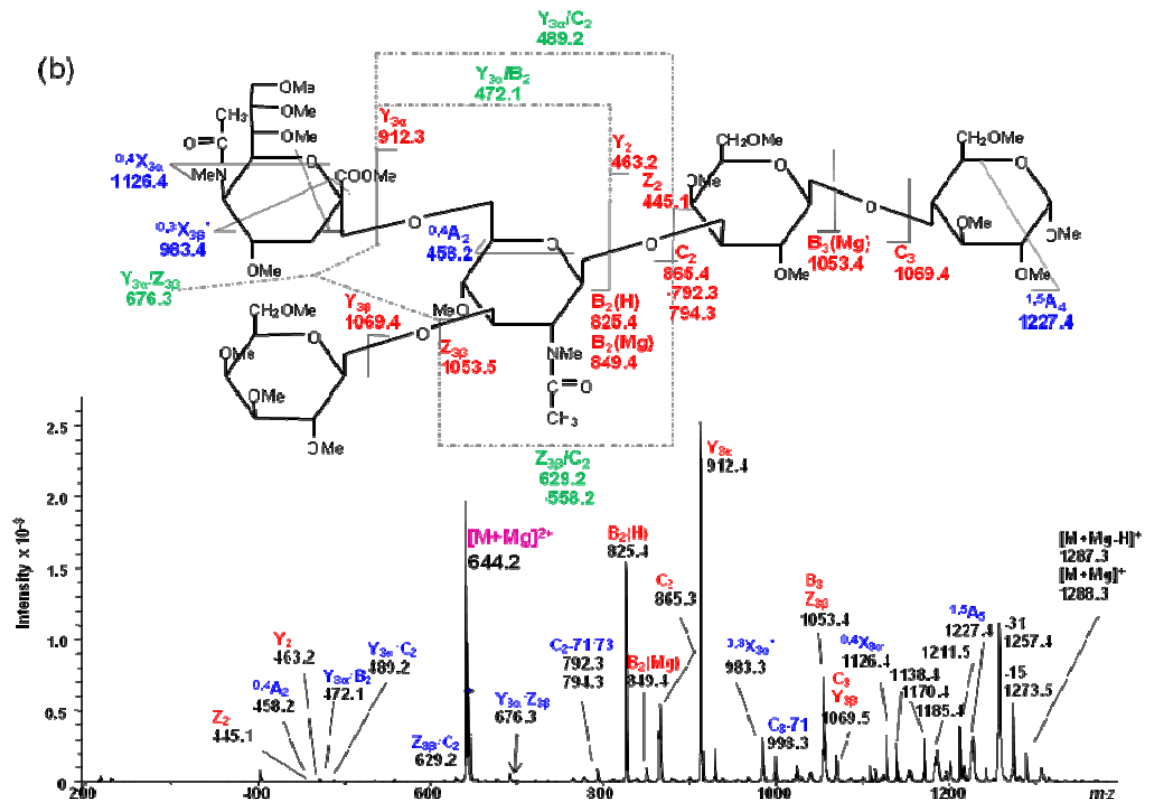
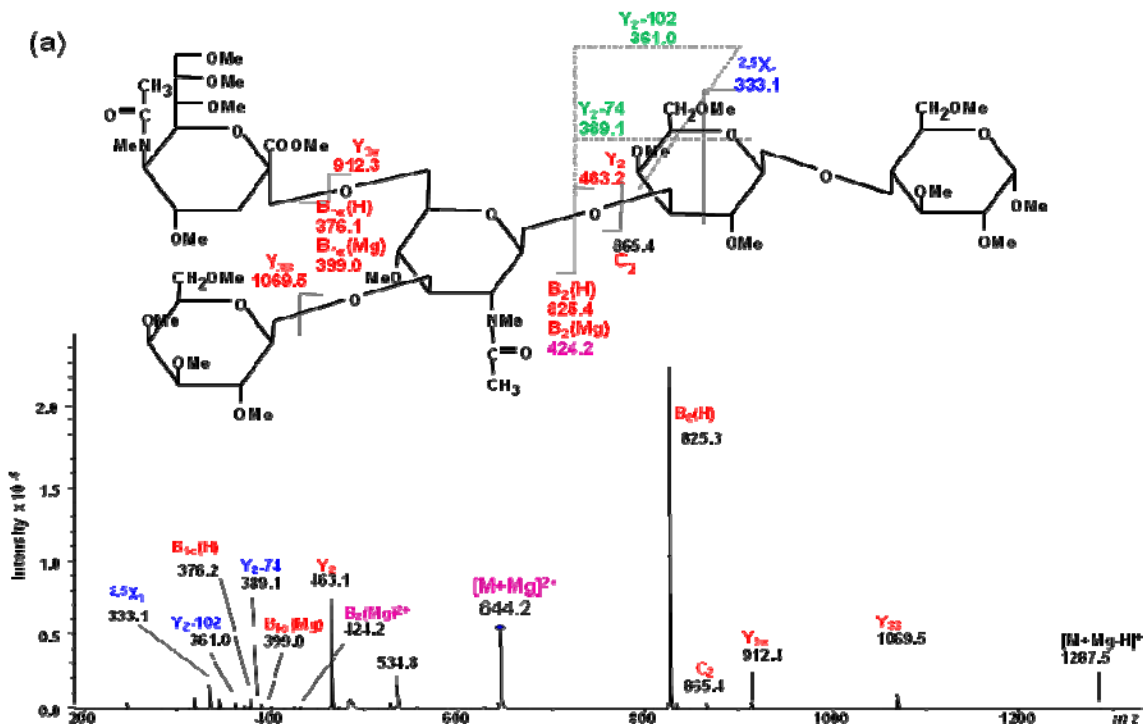
3. (a) CID and (b) ETD fragmentation of permethylated LSTa $[M + Mg]^{2+}$ m/z 644.2.



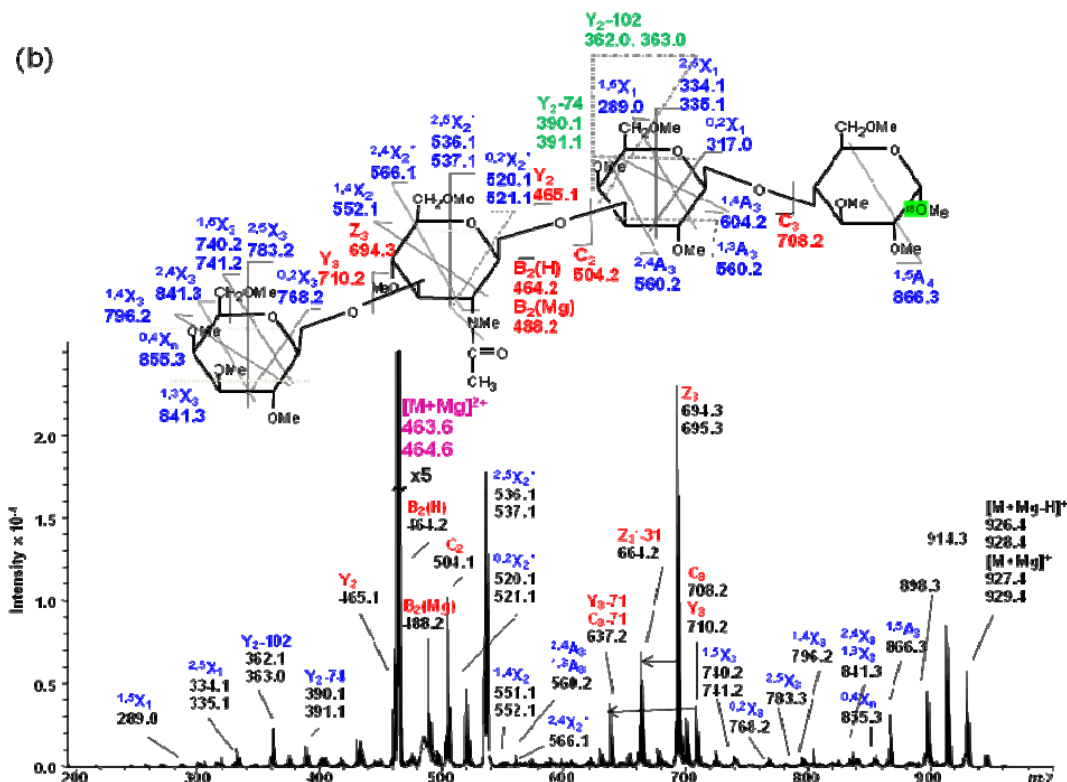
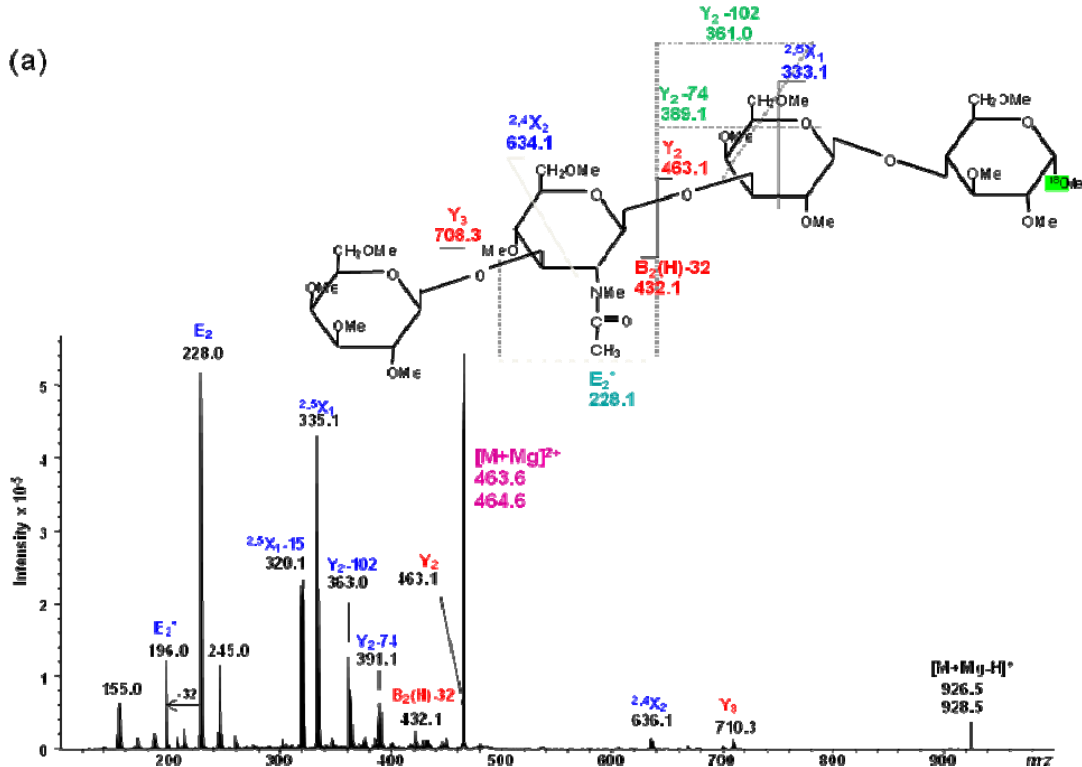
4. (a) CID and (b) ETD fragmentation of permethylated LSTc $[M + Mg]^{2+}$ m/z 644.2.



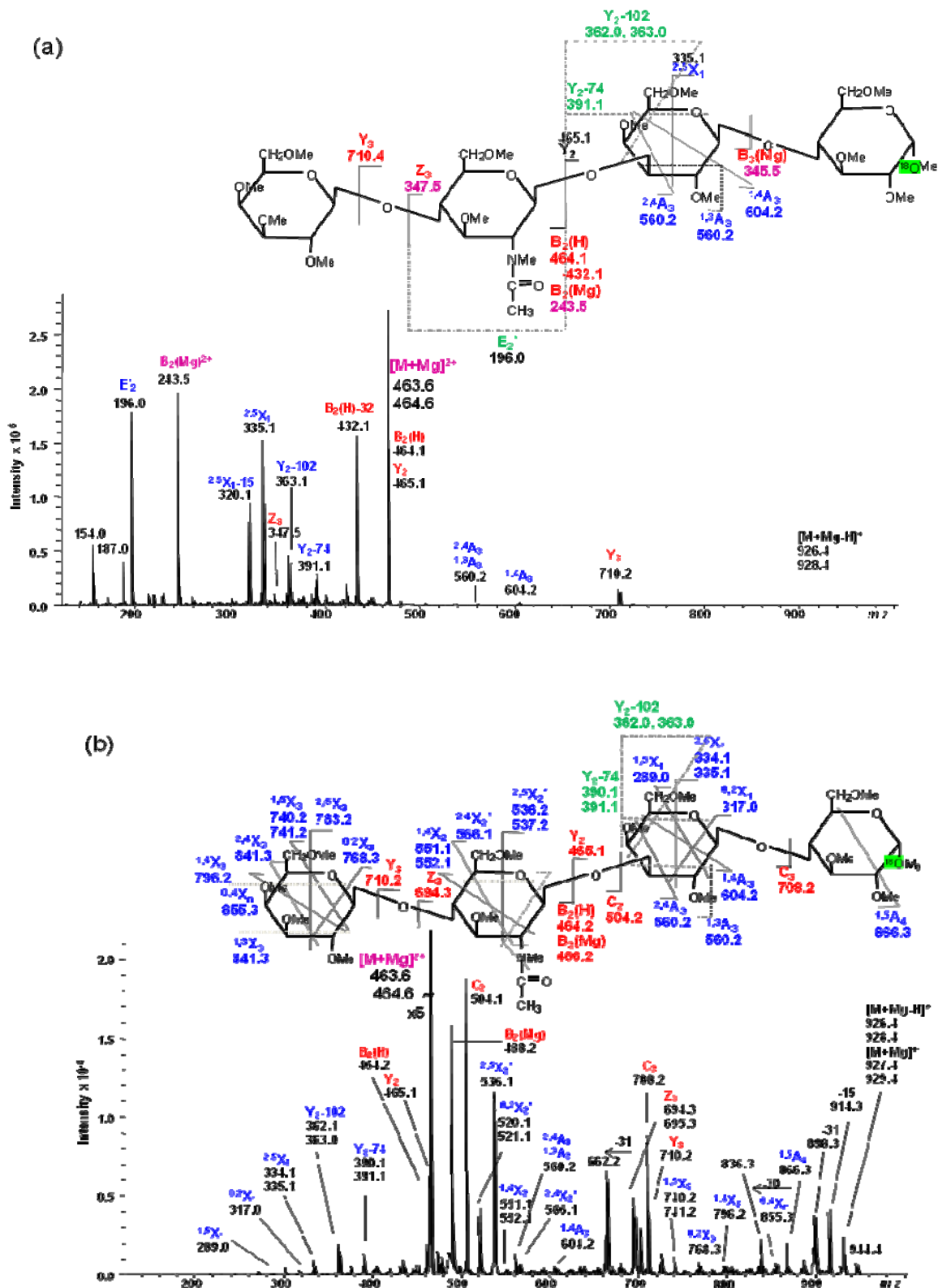
5. (a) CID and (b) ETD fragmentation of permethylated LSTb $[M + Mg]^{2+}$ m/z 644.2.



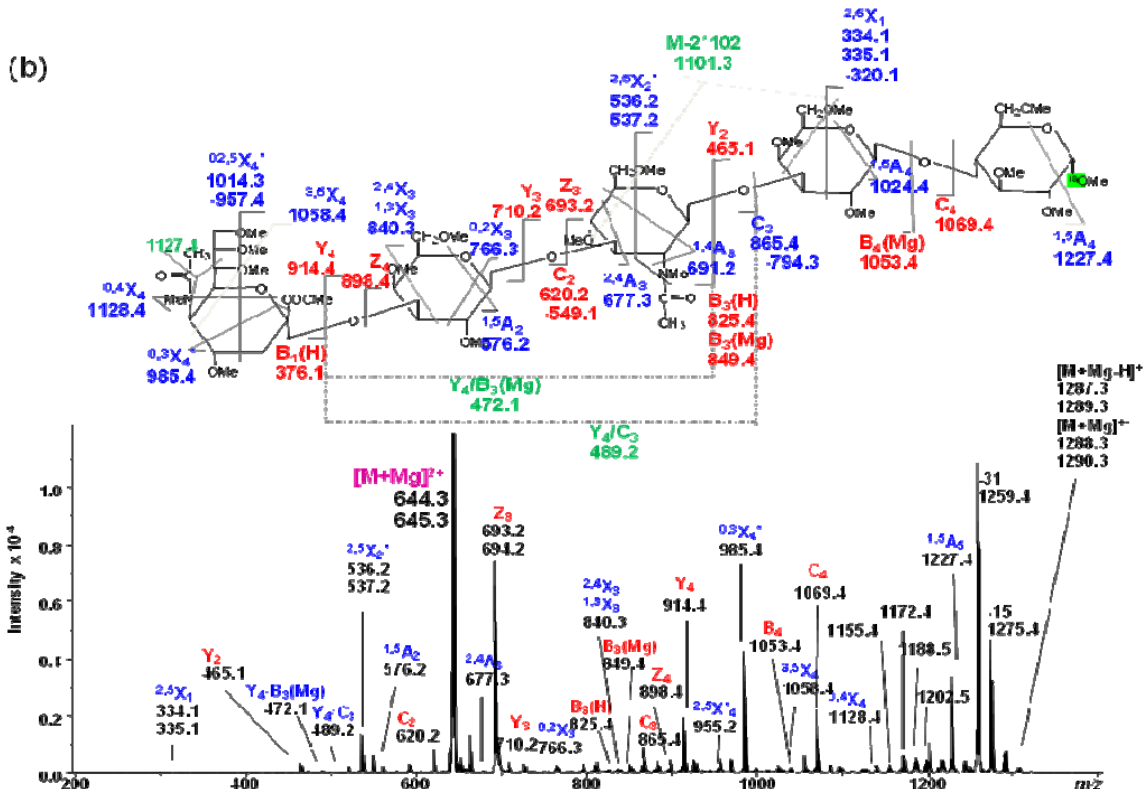
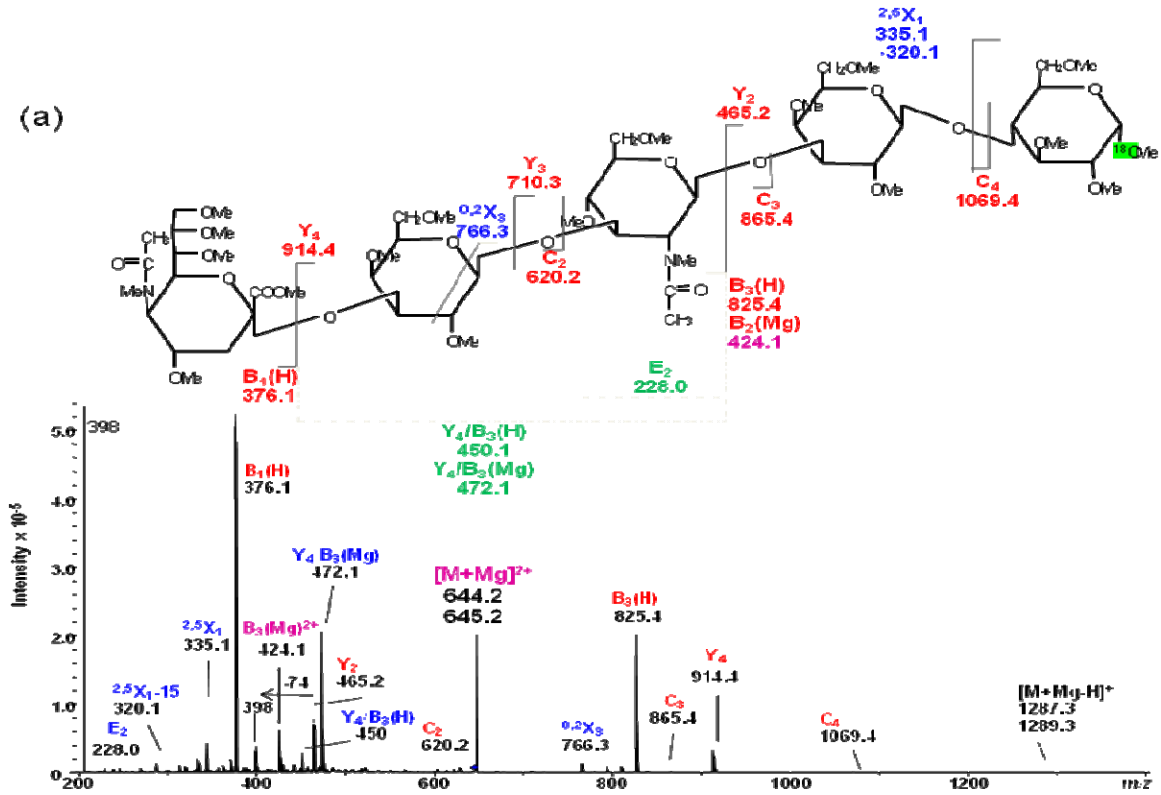
6. (a) CID and (b) ETD fragmentation of $^{16}\text{O}/^{18}\text{O}$ labeled and permethylated LNT $[\text{M} + \text{Mg}]^{2+}$ m/z 463.6/464.6. Fragment ion assignments correspond to ^{18}O -labeled species.



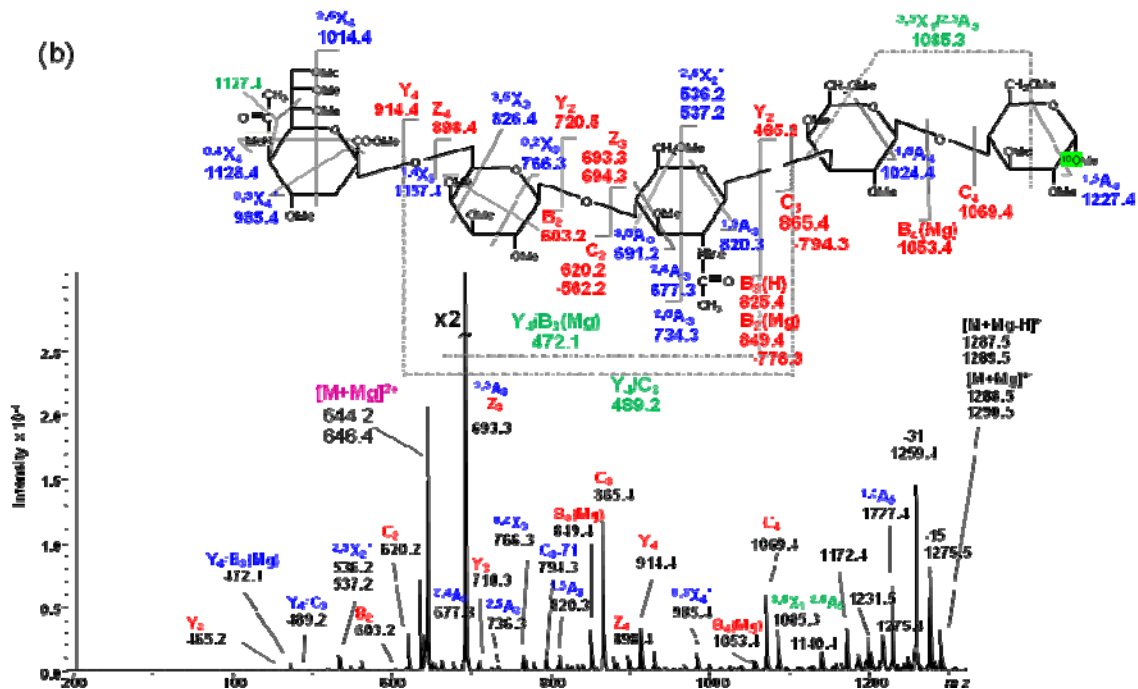
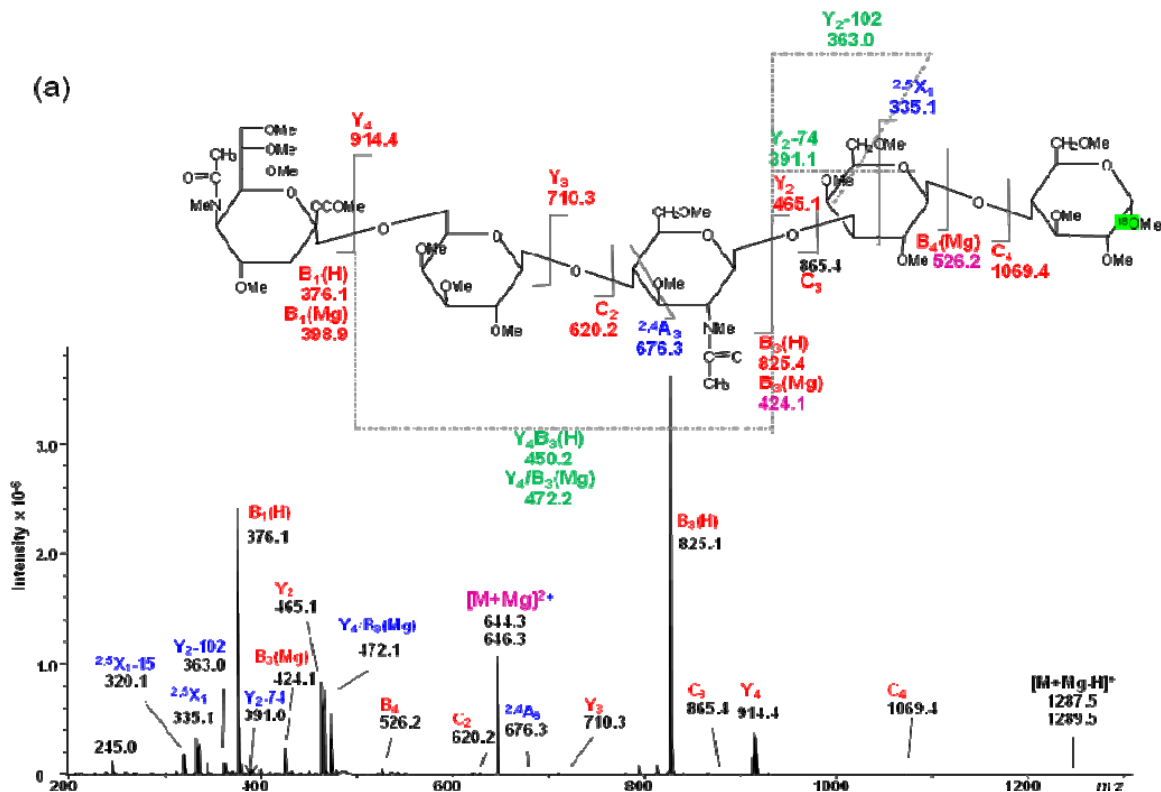
7. (a) CID and (b)) ETD fragmentation of $^{16}\text{O}/^{18}\text{O}$ labeled and permethylated LNnT $[\text{M} + \text{Mg}]^{2+}$ m/z 463.6/464.6. Fragment ion assignments correspond to ^{18}O -labeled species.



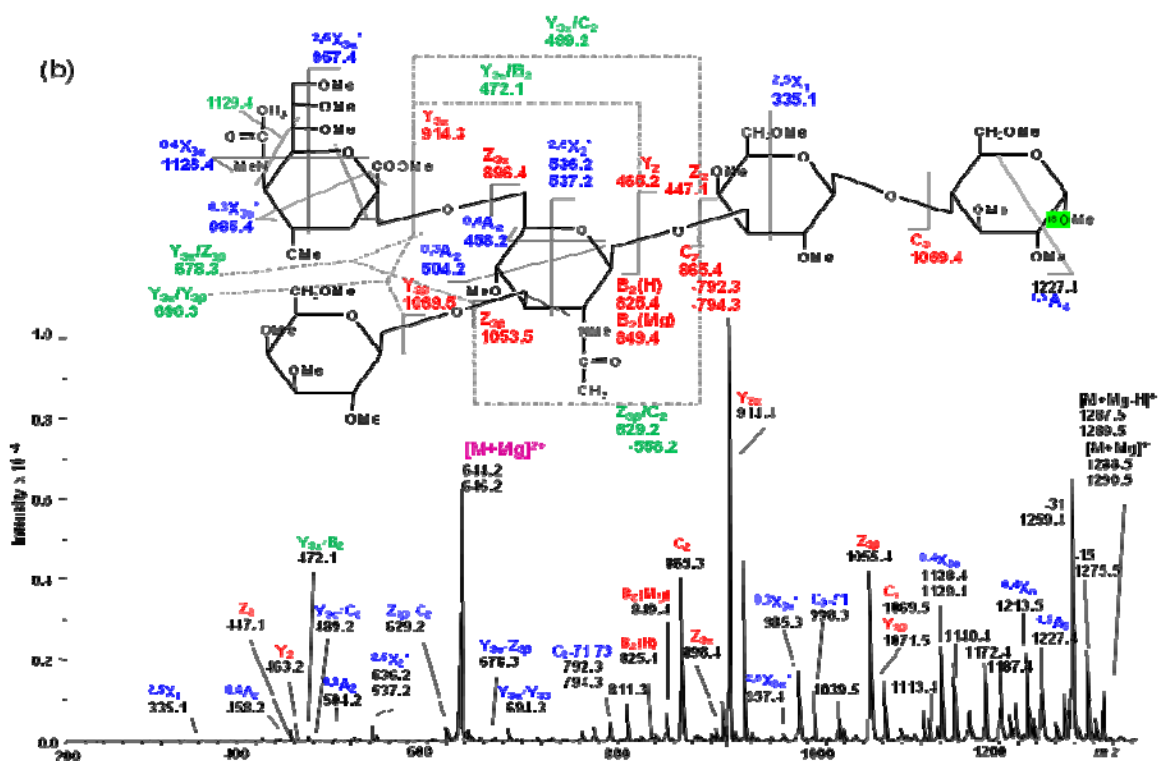
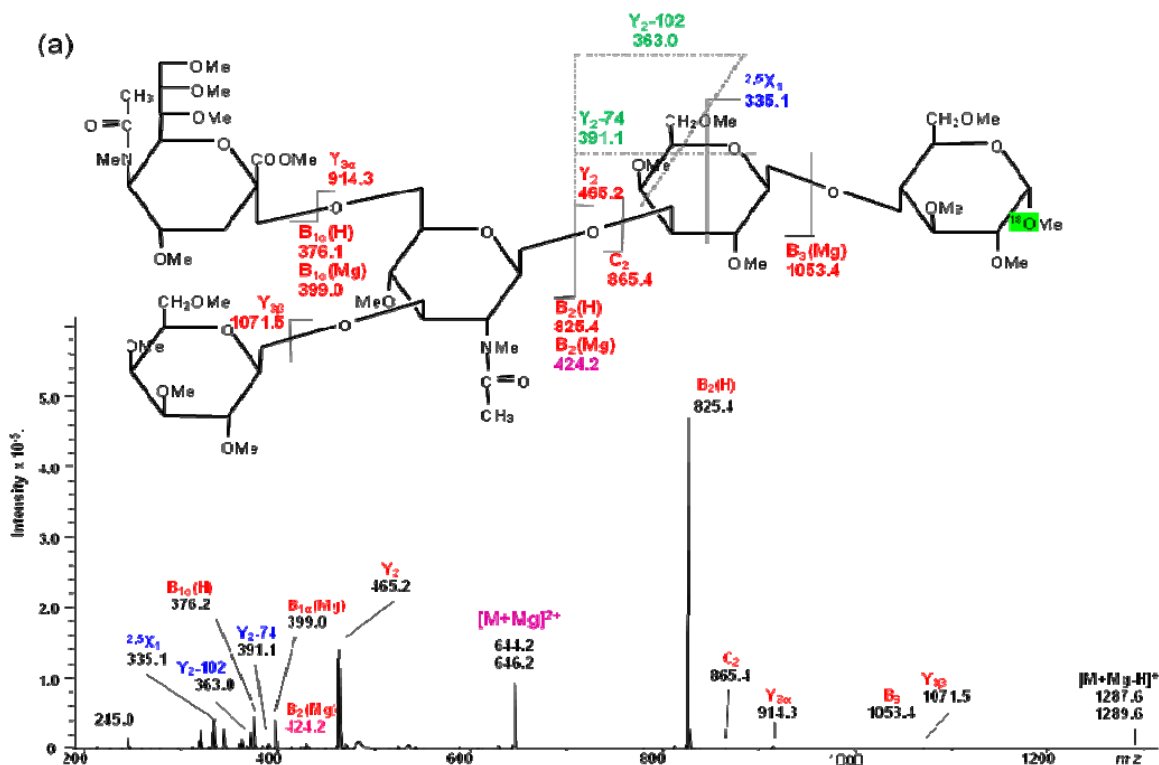
8. (a) CID and (b) ETD fragmentation of $^{16}\text{O}/^{18}\text{O}$ labeled and permethylated LSTa $[\text{M} + \text{Mg}]^{2+}$ m/z 644.2/645.2. Fragment ion assignments correspond to ^{18}O -labeled species.



9. (a) CID and (b) ETD fragmentation of ¹⁶O/¹⁸O labeled and permethylated LSTc [M + Mg]²⁺ *m/z* 644.2/645.2. Fragment ion assignments correspond to ¹⁸O-labeled species.

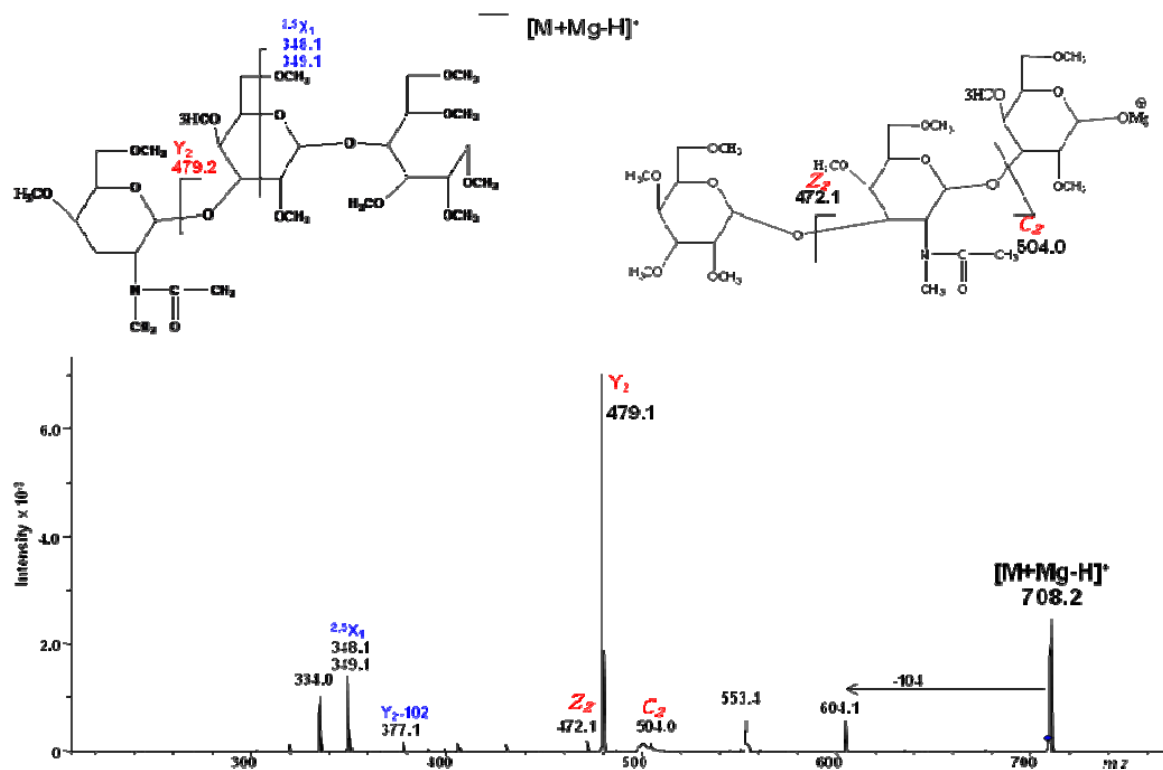


10. (a) CID and (b) ETD fragmentation of $^{16}\text{O}/^{18}\text{O}$ labeled and permethylated LSTb $[\text{M} + \text{Mg}]^{2+}$ m/z 644.2/645.2. Fragment ion assignments correspond to ^{18}O -labeled species.



11. ETD/CID MS³ fragmentation of reduced and permethylated LNT $[M + Mg]^{2+}$ m/z 708.2

A mixture of C and Z ions



12. ETD/CID MS³ fragmentation of reduced and permethylated LNT [M + Mg]²⁺ m/z 708.2
 A mixture of C and Z ions

