SUPPLEMENTAL MATERIAL

Supplemental Figure Captions

- S1. EDD product assignments for CS-A dp4-10.
- **S2.** Proposed pathway for the electron-based activation of multiply charged anions.
- **S3.** Assigned product ions for the EID of the [M-H]¹⁻ precursor ion for the CS-A/DS epimer pair.
- S4. The product ions in the previous stereo-specific region in the EID mass spectrum. (Based on accurate mass, the ${}^{0,2}A_3$ ion is not observed.)
- **S5.** Assigned product ions for the EDD of the [M-3H+1Na]²⁻ precursor ion for the CS-A/DS epimer pair.
- **S6.** Assigned product ions for the EDD of the [M-4H+2Na]²⁻ precursor ion for the CS-A/DS epimer pair.

Supplemental Figures

S1.



S2.



2





S4.



S3.



S6.





S5.