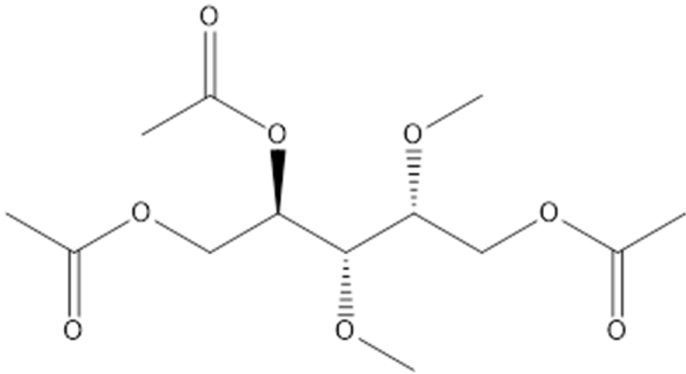
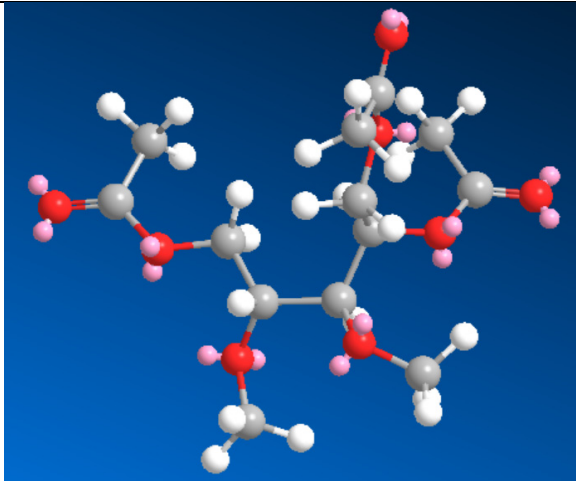
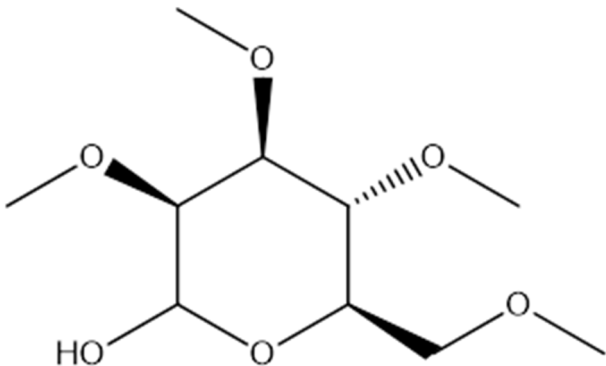
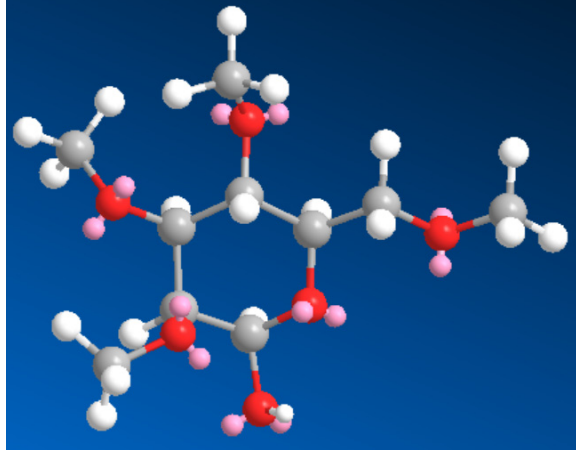


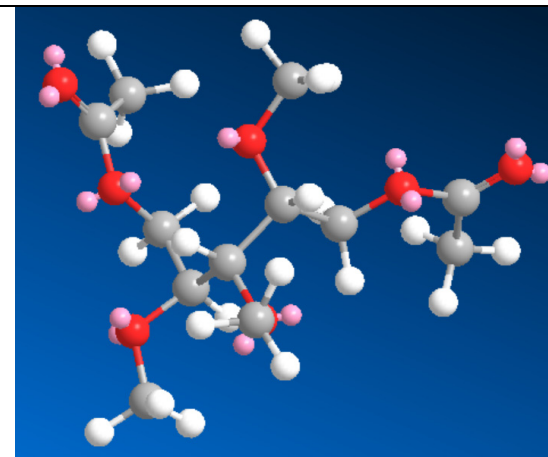
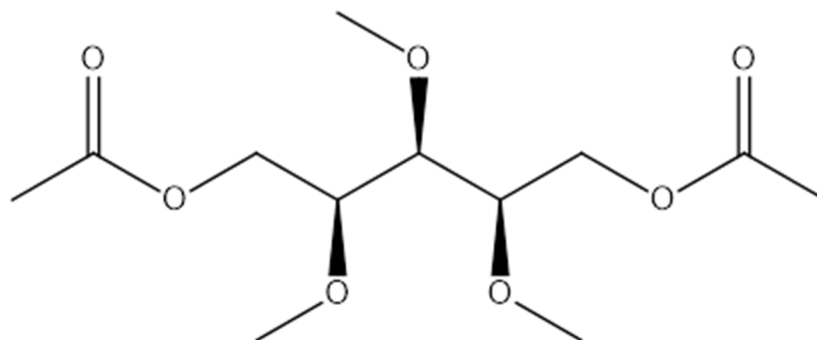
Supplementary File

Table S1: The structural visualization of observed methylated sugars in SPs.

Sample	Observed Methylated Sugars	2D	3D
SPCr	2,3-di- <i>O</i> -methyl-1,4,5-tri- <i>O</i> -acetyl arabinitol; (2 <i>R</i> ,3 <i>S</i> ,4 <i>R</i>)-3,4-dimethoxypentane-1,2,5-triyl triacetate; Chemical Formula: C ₁₃ H ₂₂ O ₈ ; Exact Mass: 306.13; Molecular Weight: 306.31 m/z: 306.13 (100.0%), 307.13 (14.1%), 308.14 (2.6%); Elemental Analysis: C, 50.97; H, 7.24; O, 41.79.		
	2,3,4,6-tetra- <i>O</i> -methyl- <i>D</i> -mannopyranose; (3 <i>S</i> ,4 <i>S</i> ,5 <i>R</i> ,6 <i>R</i>)-3,4,5-trimethoxy-6-(methoxymethyl)tetrahydro-2 <i>H</i> -pyran-2-ol; Chemical Formula: C ₁₀ H ₂₀ O ₆ ; Exact Mass: 236.13; Molecular Weight: 236.26; m/z: 236.13 (100.0%), 237.13 (11.3%), 238.13 (1.8%); Elemental Analysis: C, 50.84; H, 8.53; O, 40.63.		

SPCI

2,3,4-tri-*O*-methyl-1,5-di-*O*-acetyl xylitol; (2*R*,3*r*,4*S*)-2,3,4-trimethoxypentane-1,5-diyl diacetate; **Chemical Formula:** C₁₂H₂₂O₇; **Exact Mass:** 278.14; **Molecular Weight:** 278.30; **m/z:** 278.14 (100.0%), 279.14 (13.5%), 280.14 (2.2%); **Elemental Analysis:** C, 51.79; H, 7.97; O, 40.24.



2,3,4,6-tetra-*O*-methyl-*D*-galactopyranose; (3*R*,4*S*,5*S*,6*R*)-3,4,5-trimethoxy-6-(methoxymethyl)tetrahydro-2*H*-pyran-2-ol; **Chemical Formula:** C₁₀H₂₀O₆; **Exact Mass:** 236.13; **Molecular Weight:** 236.26; **m/z:** 236.13 (100.0%), 237.13 (11.3%), 238.13 (1.8%); **Elemental Analysis:** C, 50.84; H, 8.53; O, 40.63.

