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Supplementary Material

Practical Isolation of Asperuloside from *Coprosma Quadrifida* via Rapid Pressurised Hot Water Extraction

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I. Comparison of PHWE and Soxhlet Extraction

Leaves of *C. quadrifida* were dried in an oven maintained at 40 °C for 18 h and then coarsely ground with an unmodified household spice grinder. Ground leaves of *C. quadrifida* (20 g) were divided into 2 equal portions (2x 10 g) and used in respective PHWE and Soxhlet extractions in the manner described below.

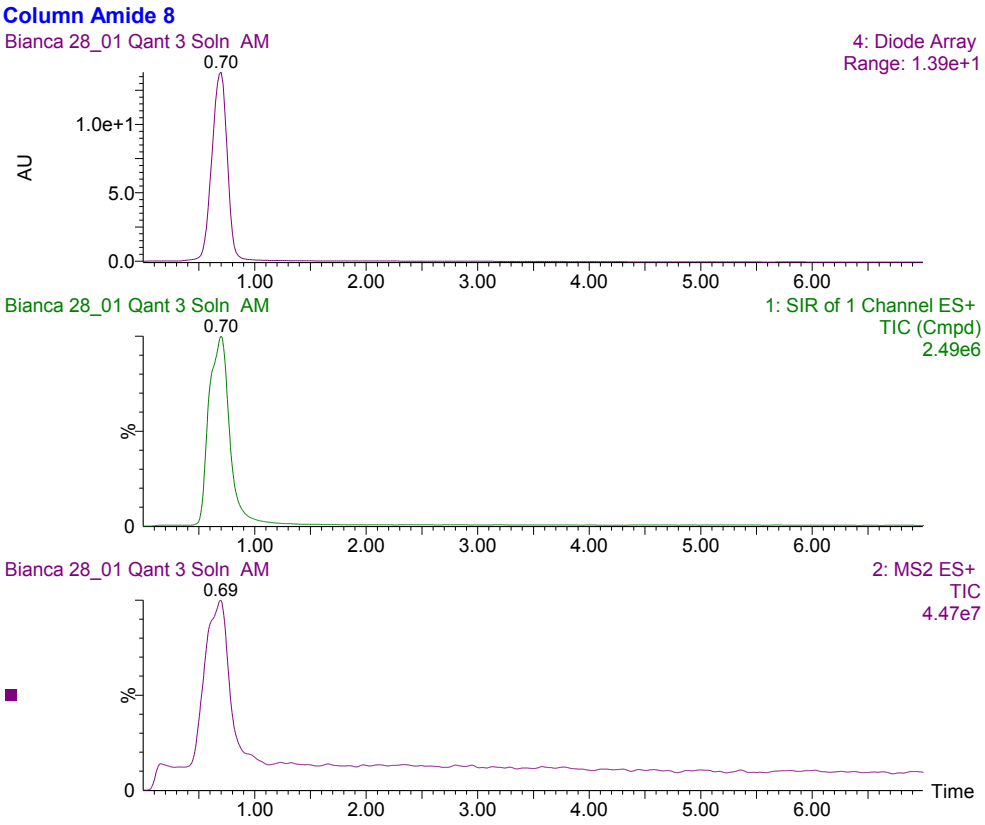
PHWE of *C. quadrifida* (10 g)

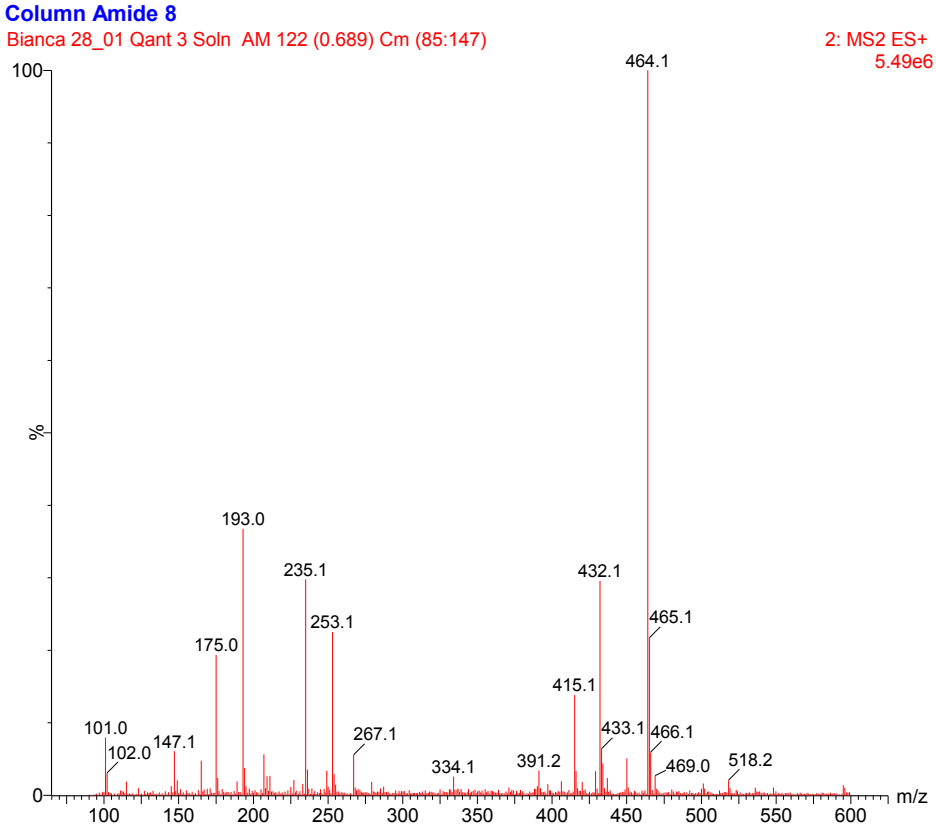
Ground leaves of *C. quadrifida* (10 g) were mixed with sand (2 g), placed into the portafilter (sample compartment) of an espresso machine and extracted using H_2O (200 mL of a hot solution. The extract was cooled in an ice bath and concentrated on a rotary evaporator (50 °C water bath temperature) to provide a brown residue (2.90 g). MeOH and silica gel were added to the ensuing residue and the suspension was then evaporated to dryness on a rotary evaporator. The resulting solid was loaded on a sintered glass funnel and extracted with an EtOAc/ MeOH/ H_2O solution (90:10:1 ratio), an EtOAc/ MeOH/ H_2O solution (80:20:1 ratio), and an EtOAc/ MeOH/ H_2O solution (70:30:1 ratio). Fractions containing asperuloside were combined and concentrated to provide a yellow solid (1.39 g). The ensuing residue was purified by flash chromatography {gradient elution: 0→100% (80:20:1 ratio of EtOAc/ MeOH/ H_2O)/ EtOAc}. This afforded asperuloside (0.49 g, 4.9% yield w/w) as a light-yellow crystalline solid. Asperuloside was analysed by LC-MS (see S-2).

Soxhlet Extraction of *C. quadrifida* (10 g)

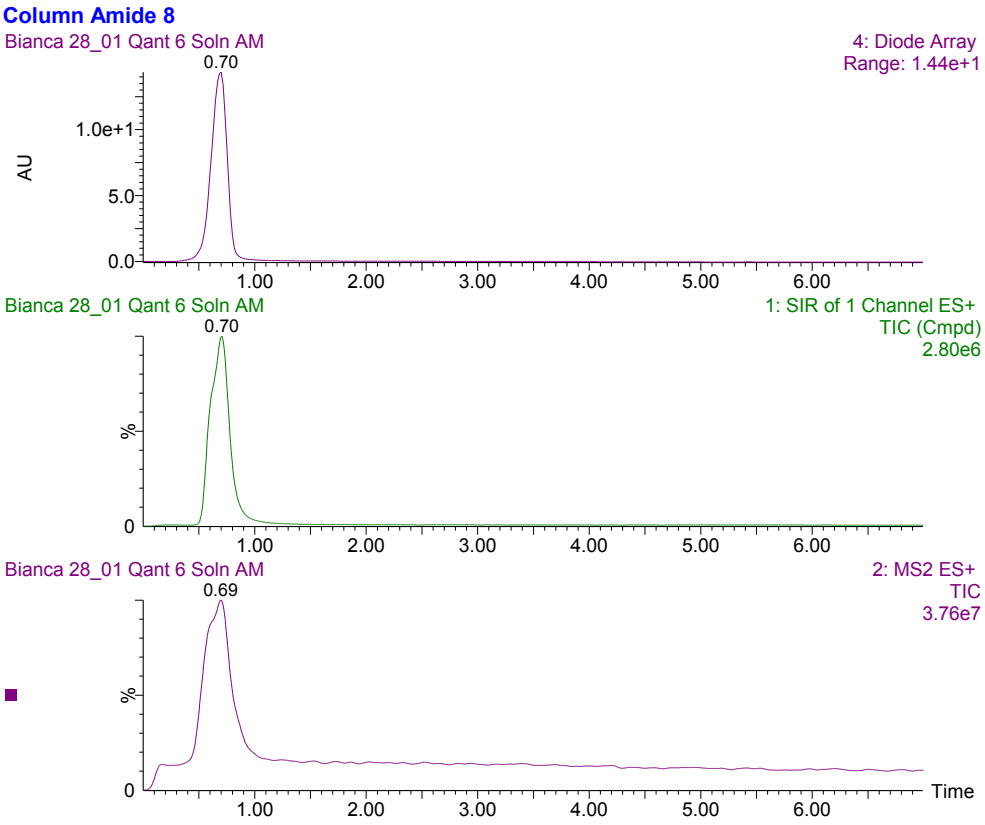
Ground leaves of *C. quadrifida* (10 g) were extracted exhaustively by Soxhlet extraction with acetone (100 mL) for 18 h. The resulting extract was then concentrated on a rotary evaporator (50 °C water bath temperature) to provide a green residue (3.11 g). MeOH and silica gel were added to the ensuing residue and the suspension was then evaporated to dryness on a rotary evaporator. The resulting solid was loaded on a sintered glass funnel and extracted with an EtOAc/ MeOH/ H_2O solution (90:10:1 ratio), an EtOAc/ MeOH/ H_2O solution (80:20:1 ratio), and an EtOAc/ MeOH/ H_2O solution (70:30:1 ratio). Fractions containing asperuloside were combined and concentrated, to provide a green solid (1.80 g). The ensuing residue was purified by flash chromatography (gradient elution: 0→100% {80:20:1 ratio of (EtOAc/ MeOH/ H_2O)/ EtOAc}. This afforded asperuloside (0.45 g, 4.5% yield w/w) as a light-yellow crystalline solid. Asperuloside was analysed by LC-MS (see S-3).

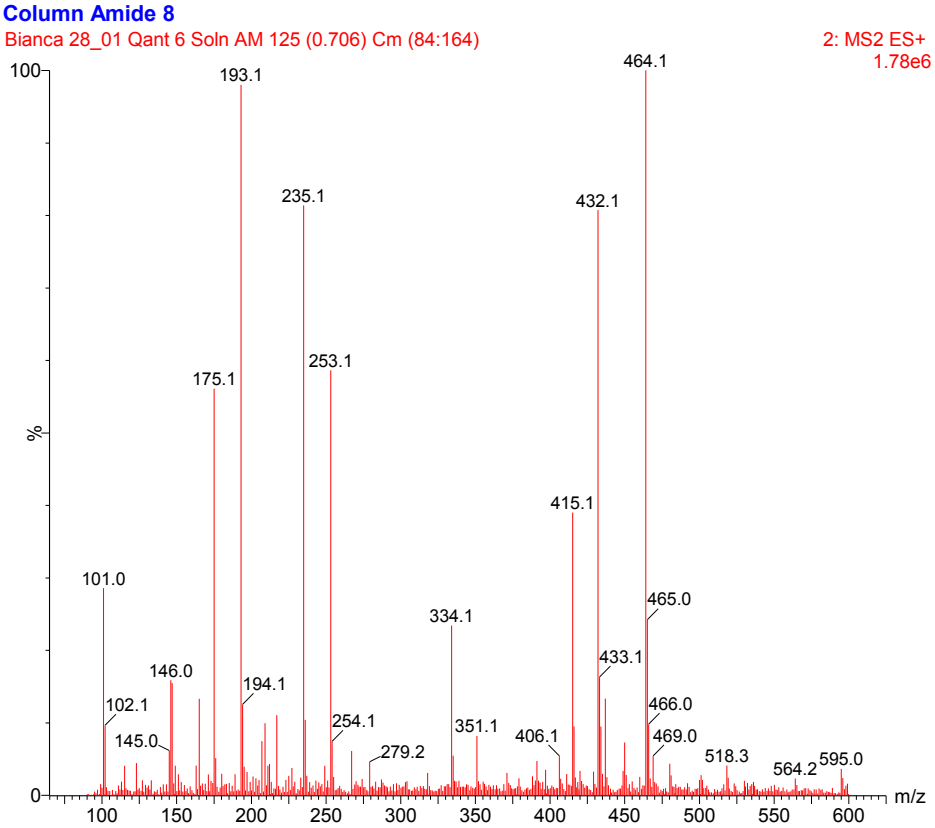
LC-MS Analysis of Isolated Asperuloside (via PHWE)



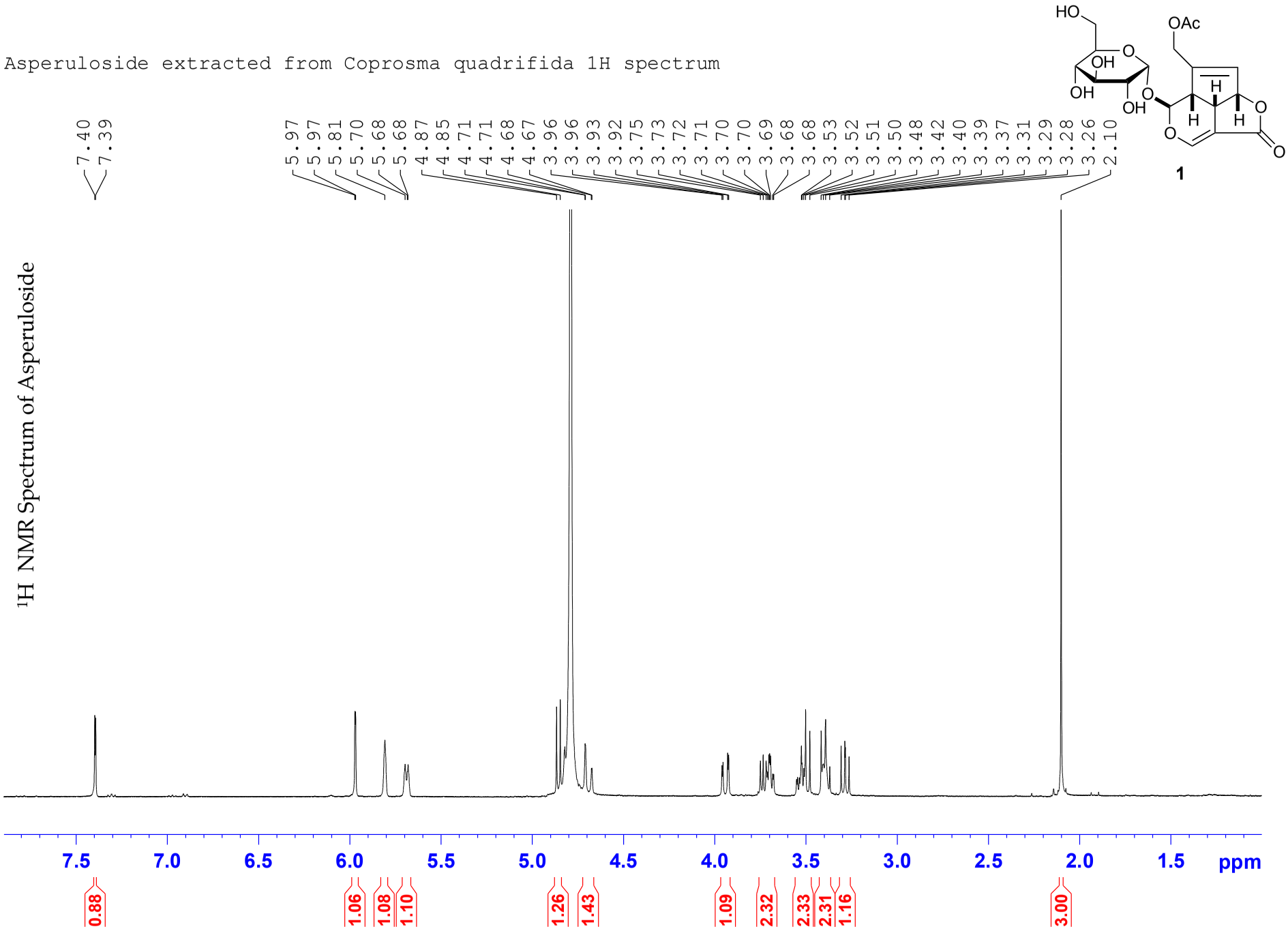


LC-MS Analysis of Isolated Asperuloside (via Soxhlet Extraction)

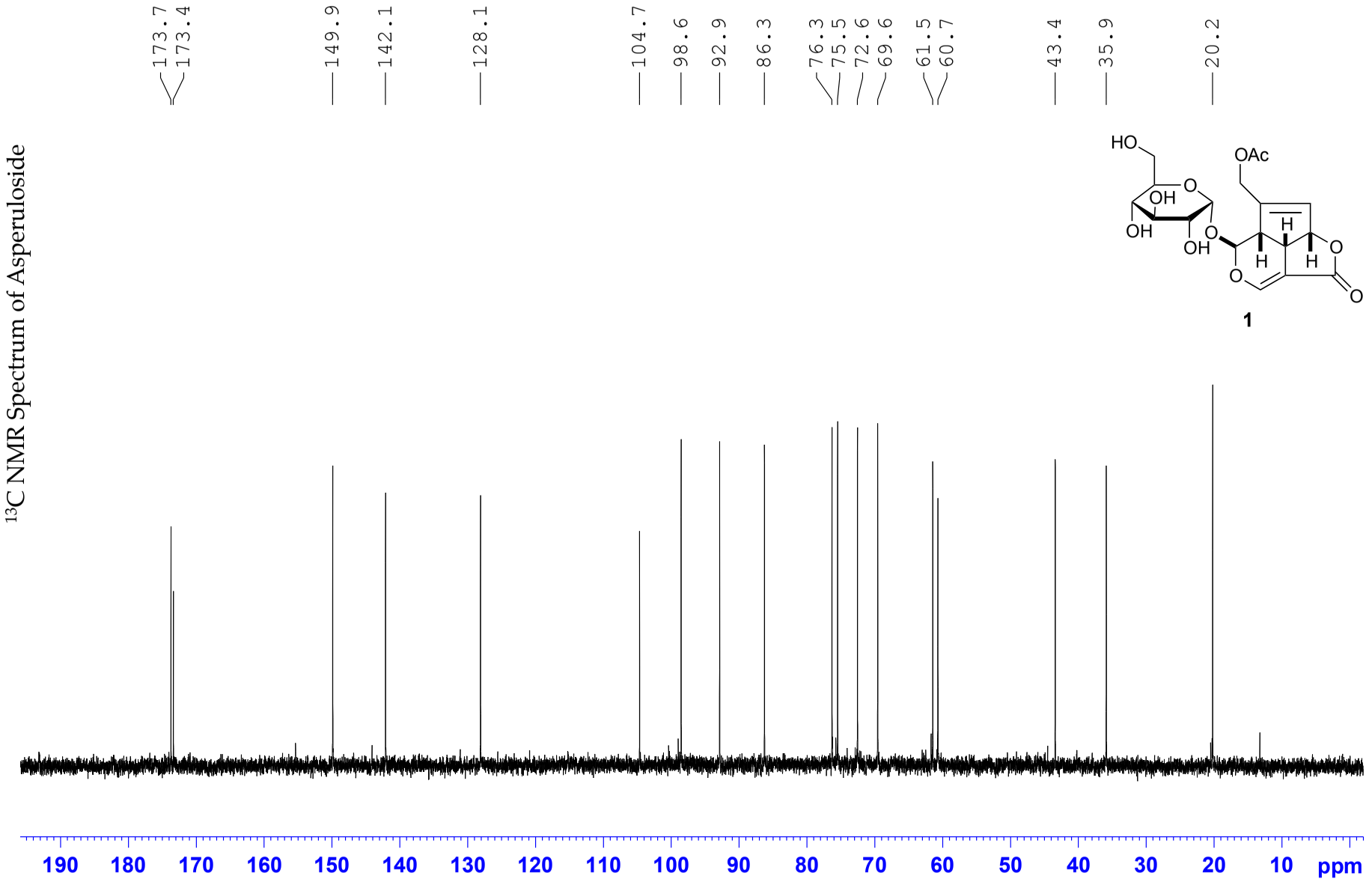




Asperuloside extracted from Coprosma quadrifida 1H spectrum



Asperuloside extracted from Coprosma quadrifida 13C spectrum



Crude PHWE extract of Coprosma quadrifida