Figure S1. Fractionation scheme

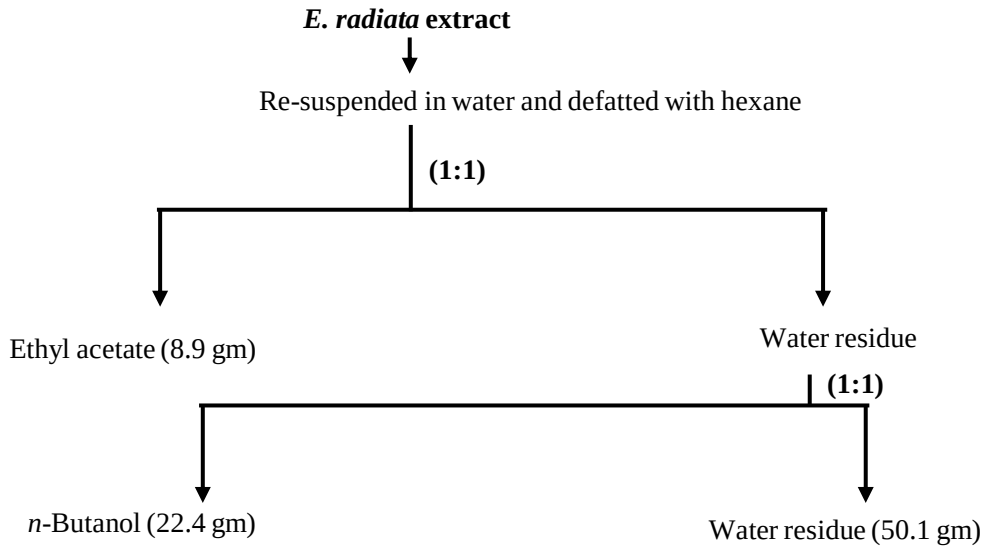
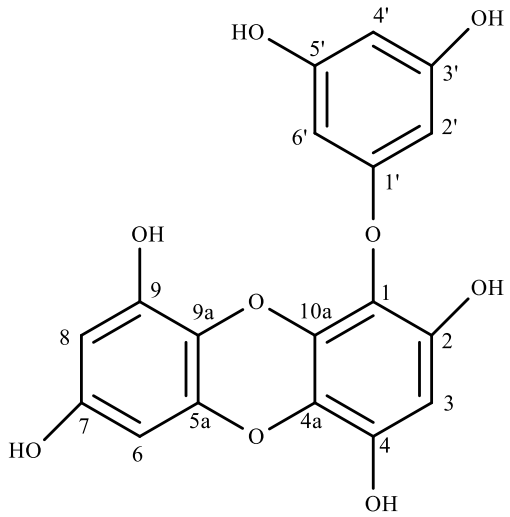
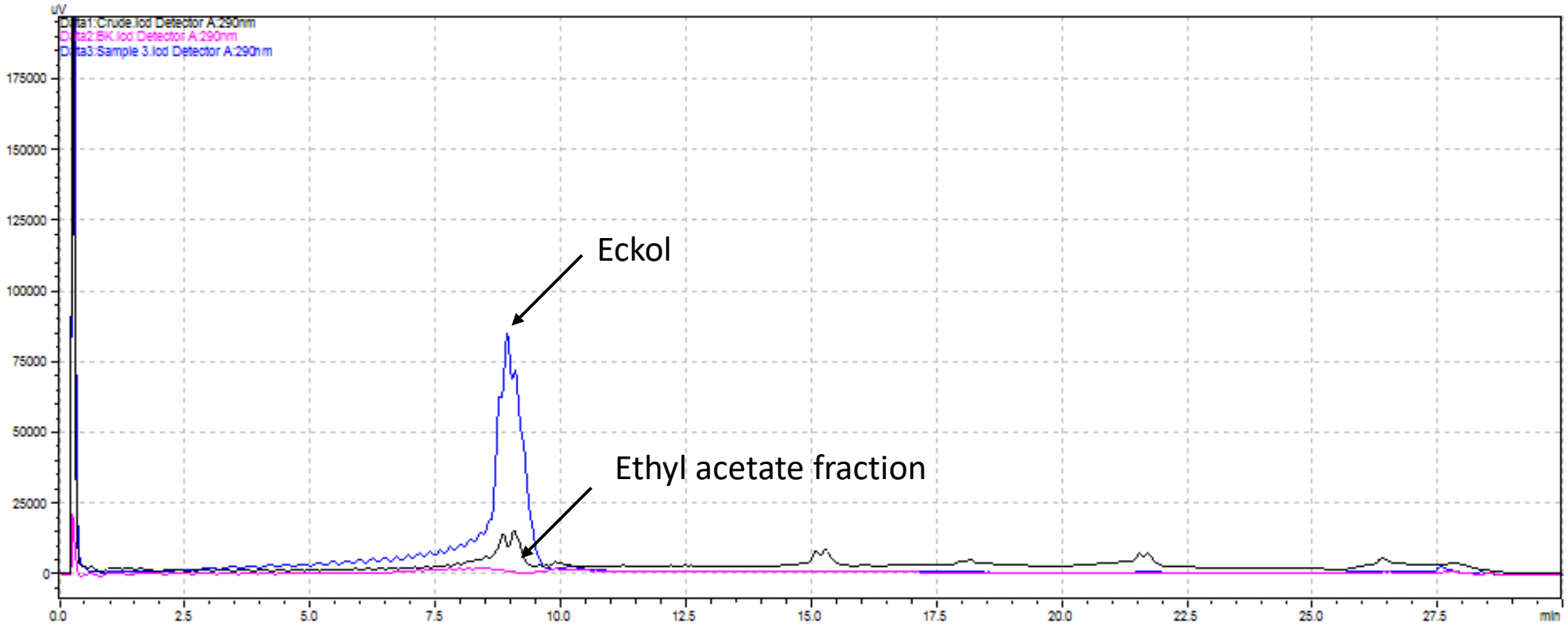


Figure S2. Structure and NMR data of eckol



^{1}H NMR (DMSO-d_6, 600 MHz) δ 9.48 (1H, s, OH-9), 9.42 (1H, s, OH-4), 9.15 (2H, s, OH-2,7), 9.12 (2H, s, OH-3', -5'), 6.14 (1H, s, H-3), 5.96 (1H, d, *J* = 2.7 Hz, H-8), 5.80 (1H, t, *J* = 1.9 Hz, H-4'), 5.79 (1H, d, *J* = 2.7 Hz, H-6), 5.72 (2H, d, *J* = 2.1 Hz, H-2', -6');
^{13}C NMR (150 MHz, DMSO-d_6) 123.1 (C-1), 145.9 (C-2), 98.1 (C-3), 141.8 (C-4), 122.2 (C-4a), 142.5 (5a), 93.7 (C-6), 152.9 (C-7), 98.4 (C-8), 146.0 (C-9), 122.6 (9a), 137.1 (10a), 160.3 (C-1'), 93.6 (C-2'6'), 158.7 (C-3'5'), 96.1 (C-4')

Figure S3. HPLC analysis of eckol



HPLC analysis of Eckol

Figure S4. ^{13}C-NMR spectra of eckol

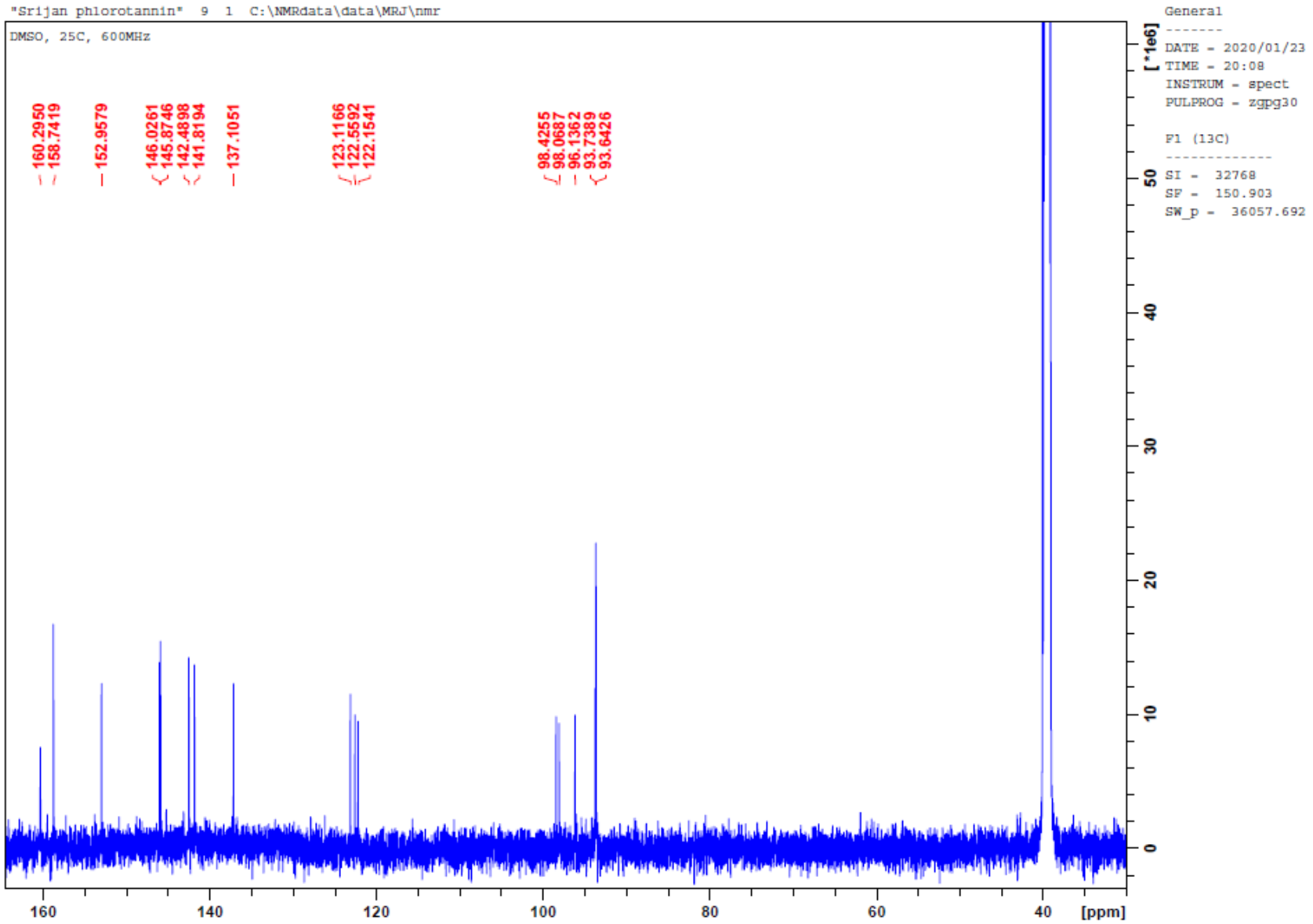


Figure S5. ^{13}C-NMR spectra of eckol

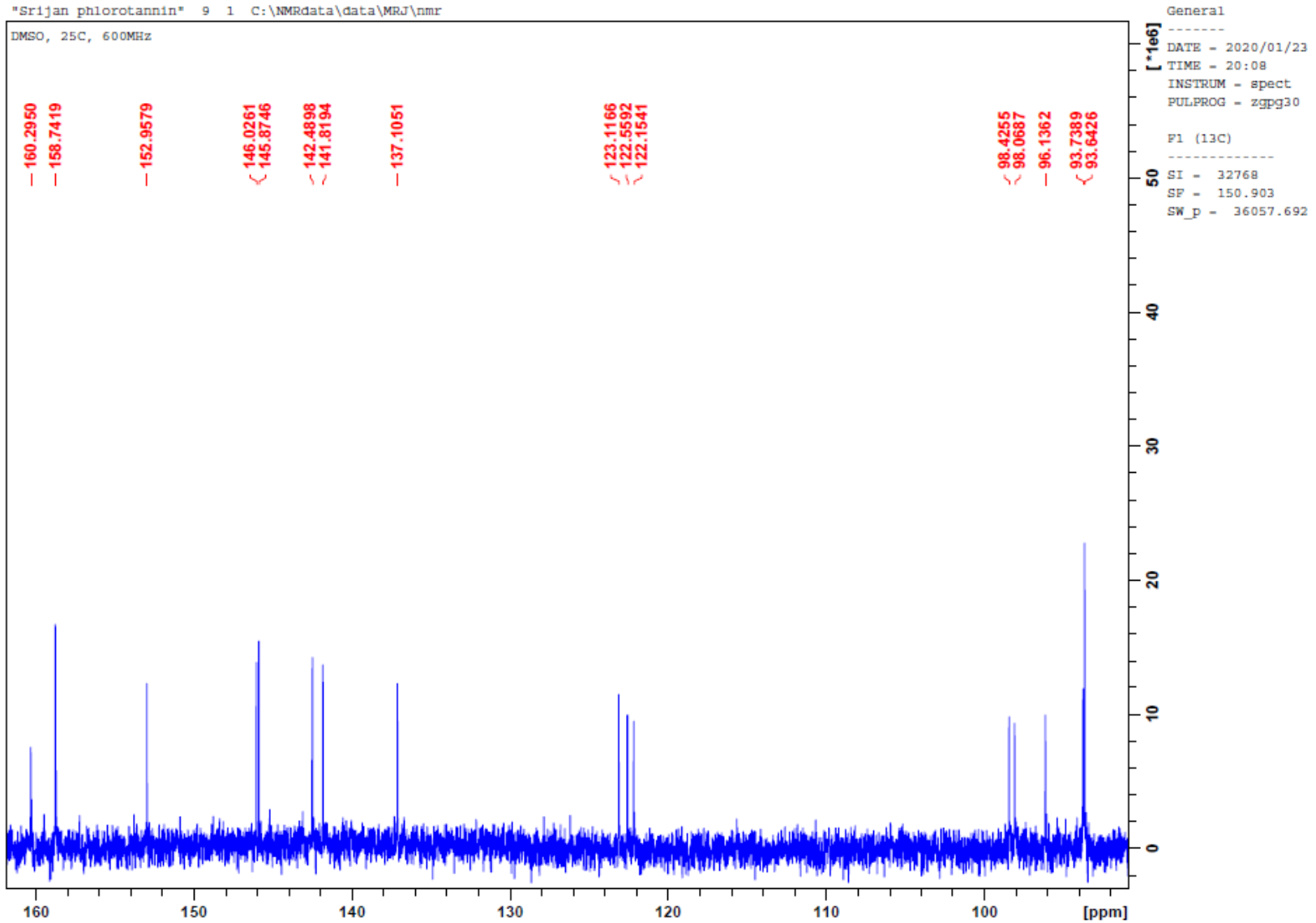


Figure S6. ^{1}H-NMR spectra of eckol

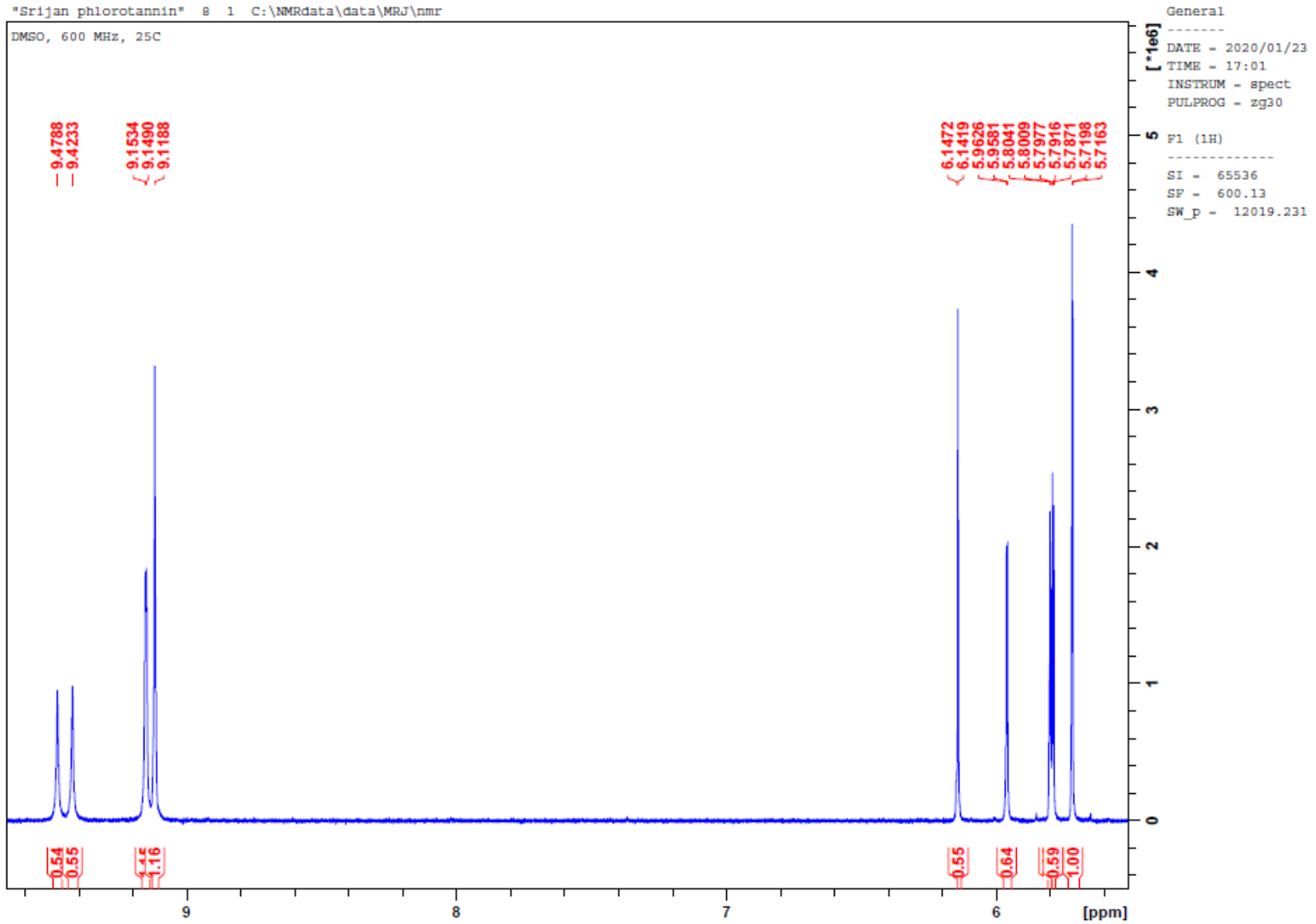


Figure S7. COSY of eckol

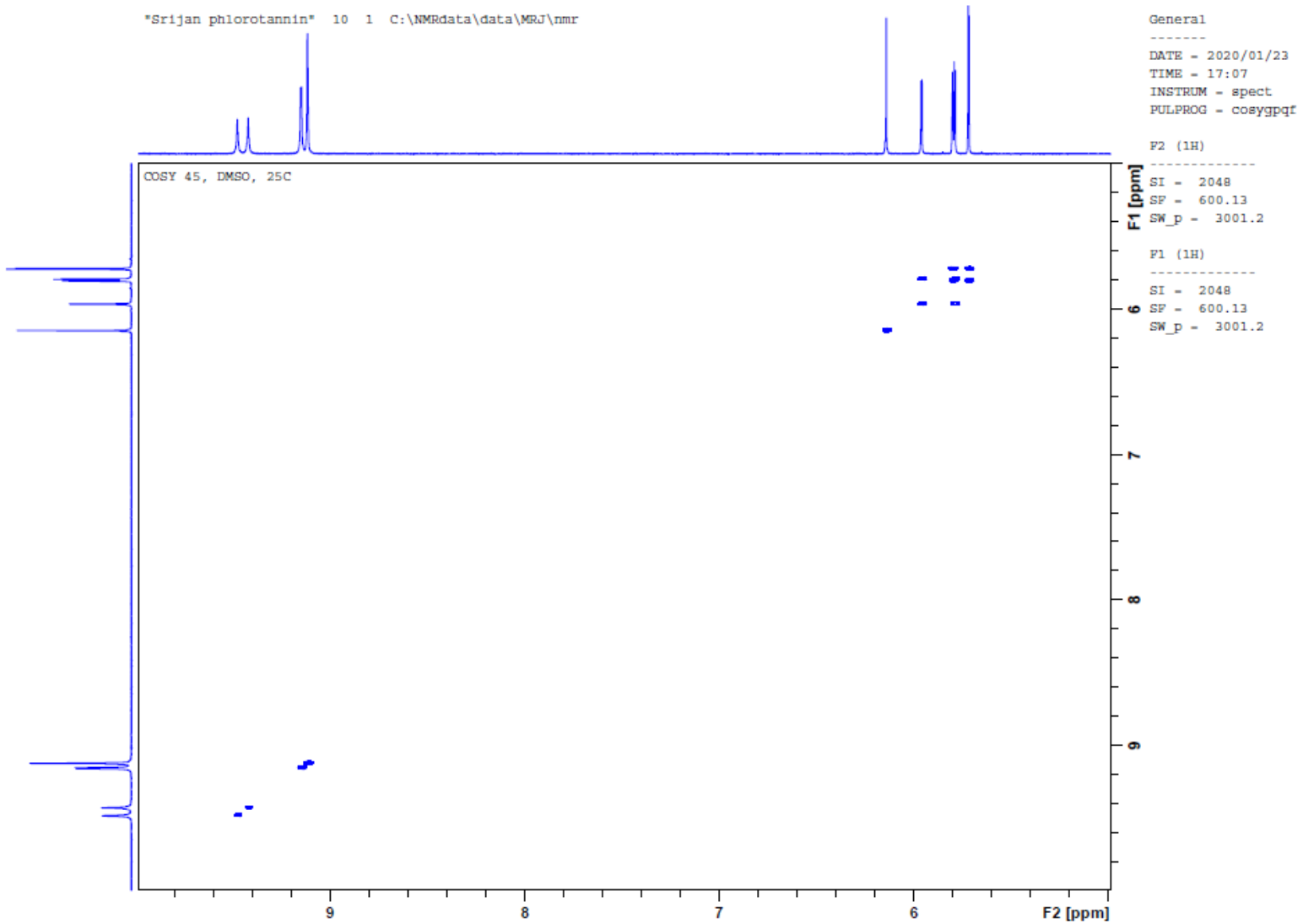


Figure S8. Proposed fragmentation pattern of the structures tentatively identified in EA fraction

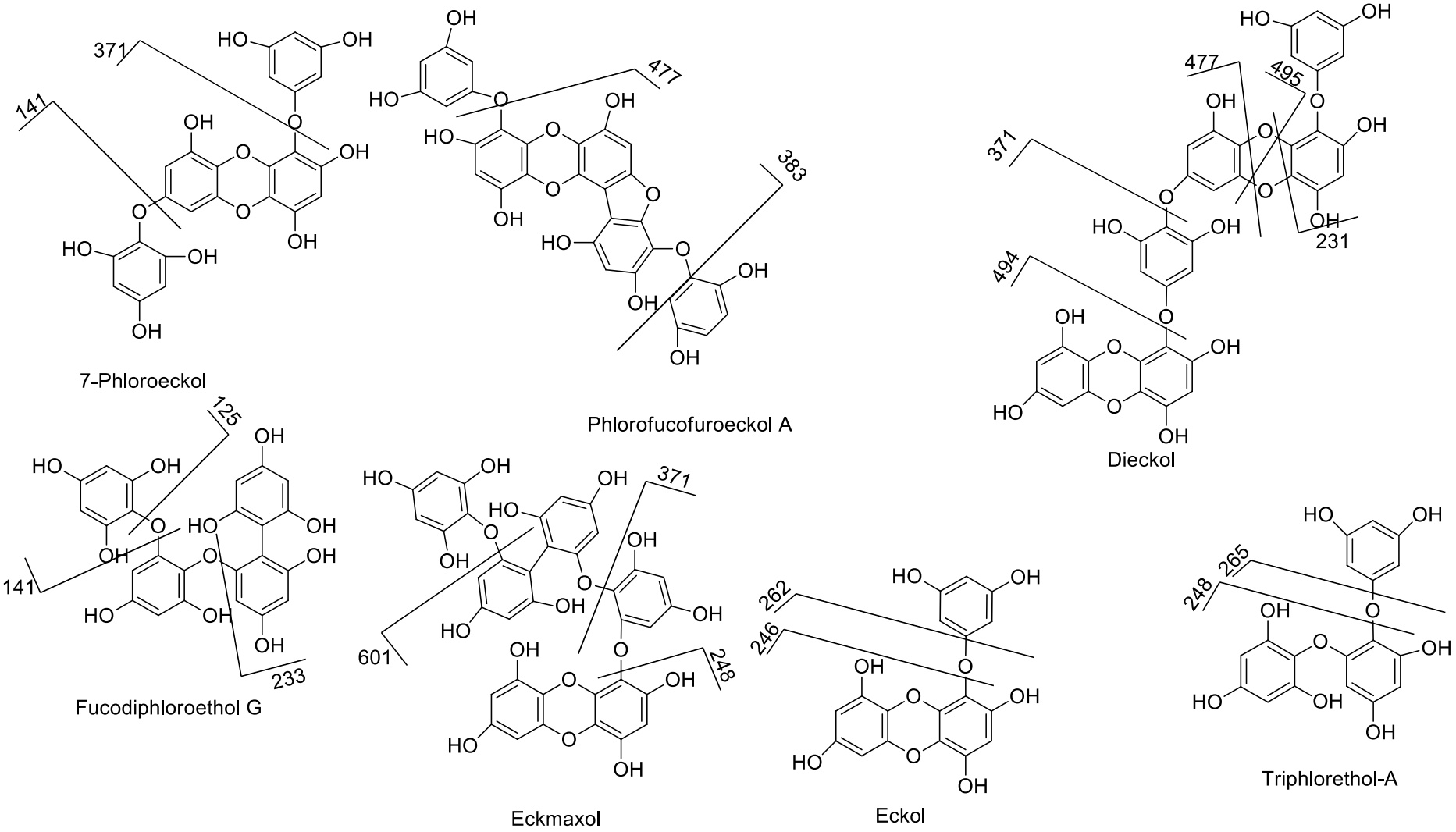


Figure S9. (A) Extracted Ion Chromatograms (EIC) of EA fraction obtained by molecular features in Agilent Masshunter. [M-H]- (m/z): 1, 371; 2, 743; 3, 741; 4, 497; 5, 495; 6, 373; 7, 601; 8, 477. (B) Total ion chromatogram (TIC) and EIC of EA fraction. The x-axis represents retention time (min), and the y-axis represents signal intensity.