Supporting Information updated on 21/12/2022 with updated spectra for S1, S13 and S16

Supporting Information

A new dendrimer series: synthesis, free radical scavenging and protein binding studies

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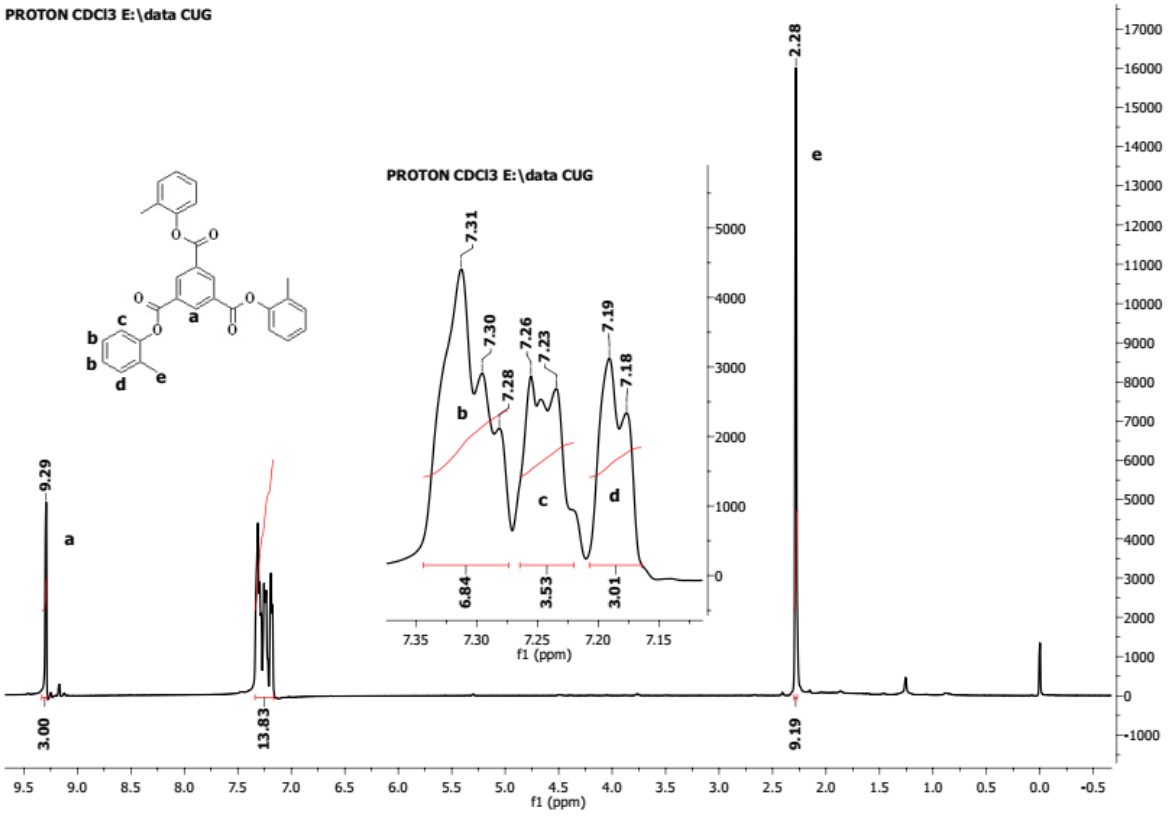

Fig (S1): ^{1}H NMR of T0

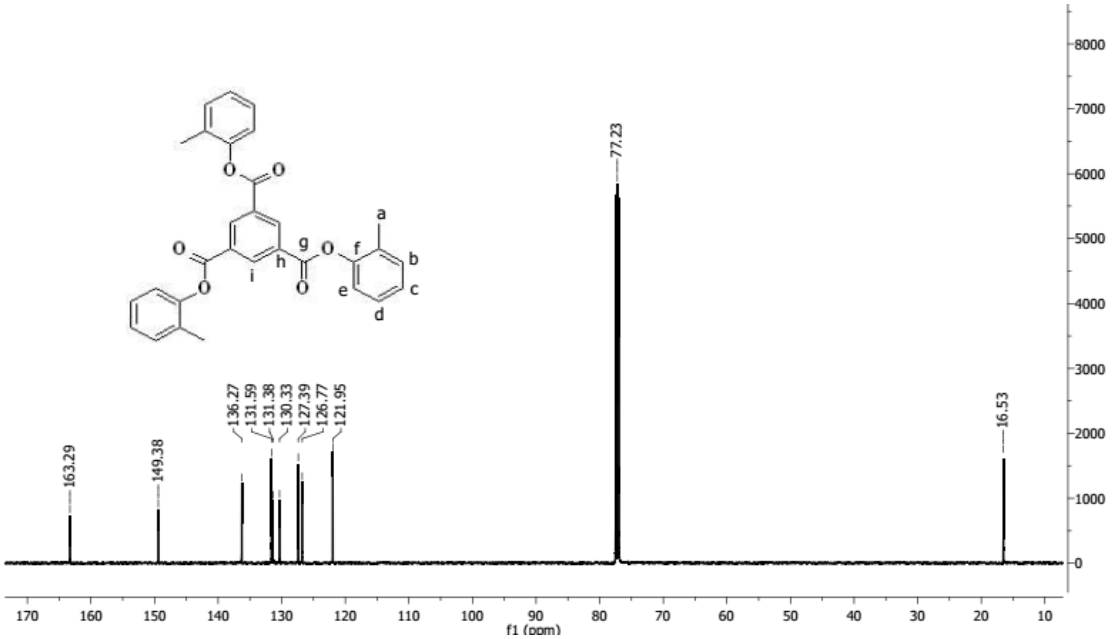

Fig (S2): ^{13}C NMR of T0

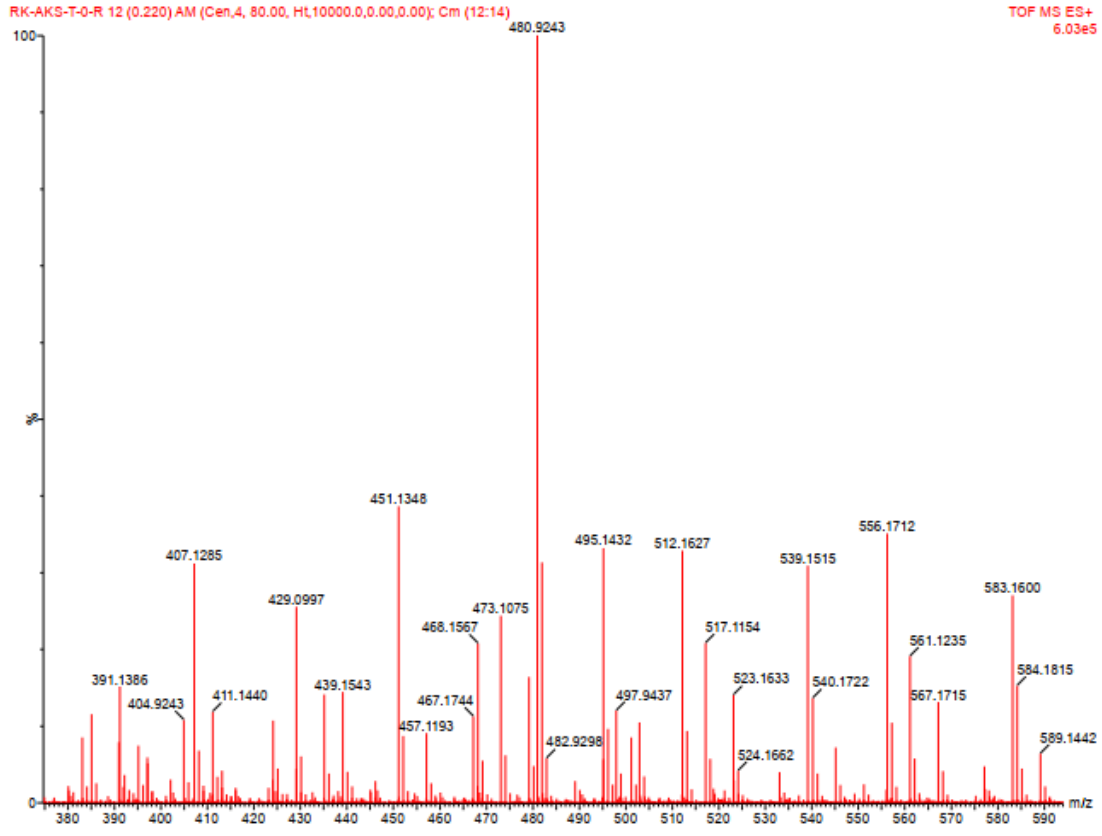

Fig (S3): HR-MS of T0

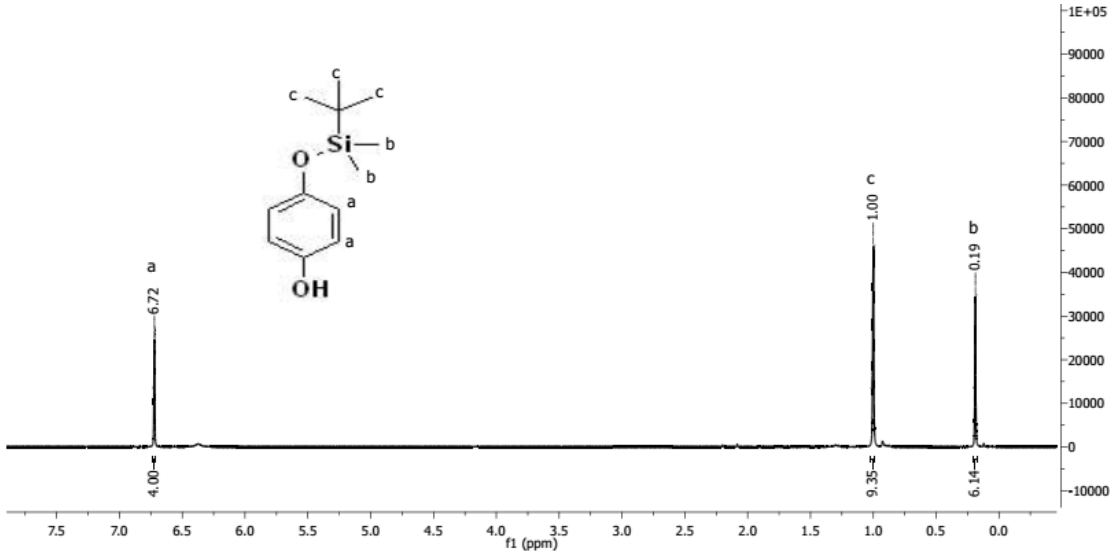

Fig (S4): ^{1}H NMR of MTBDSH

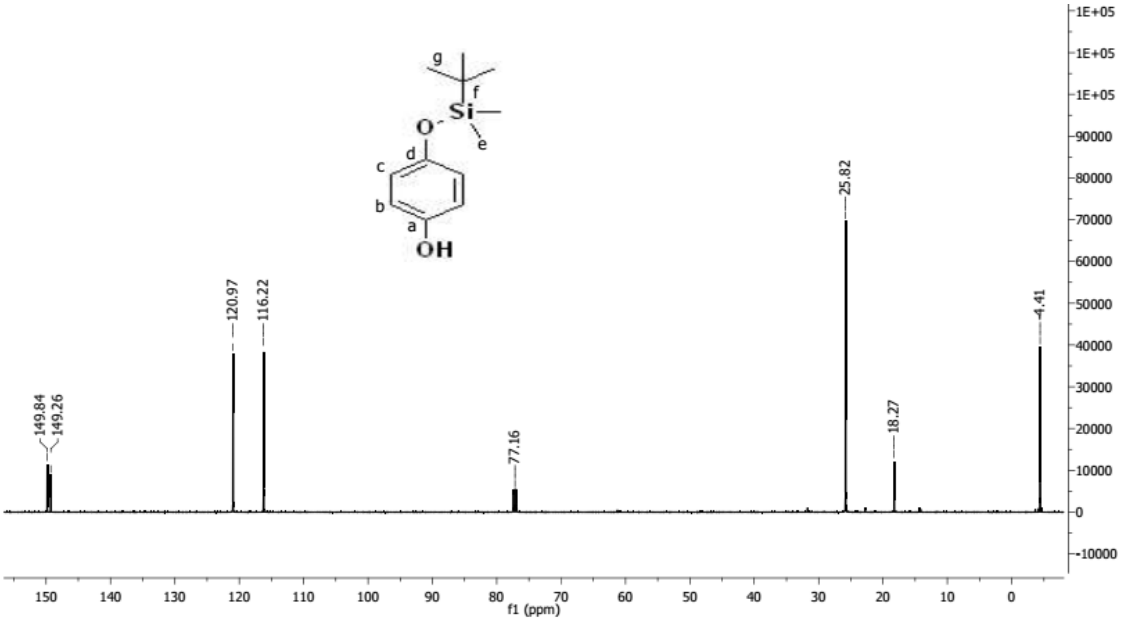

Fig (S5): ^{13}C NMR of MTBDSH

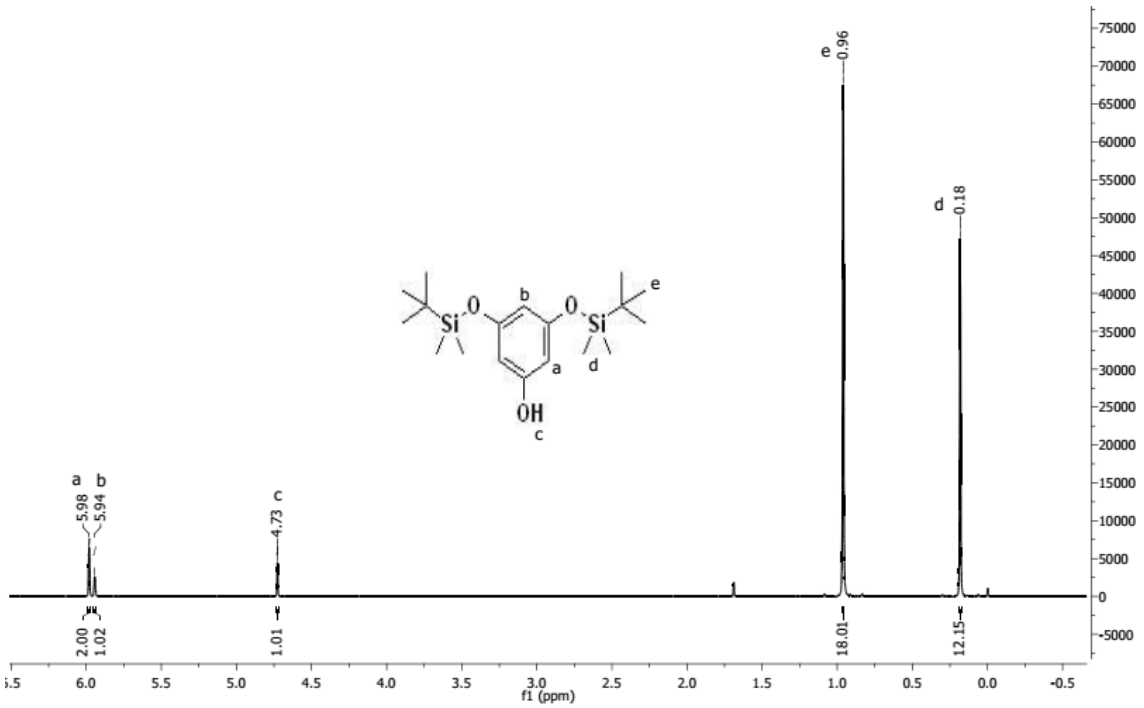

Fig (S6): ^{1}H NMR of DTBDMSP

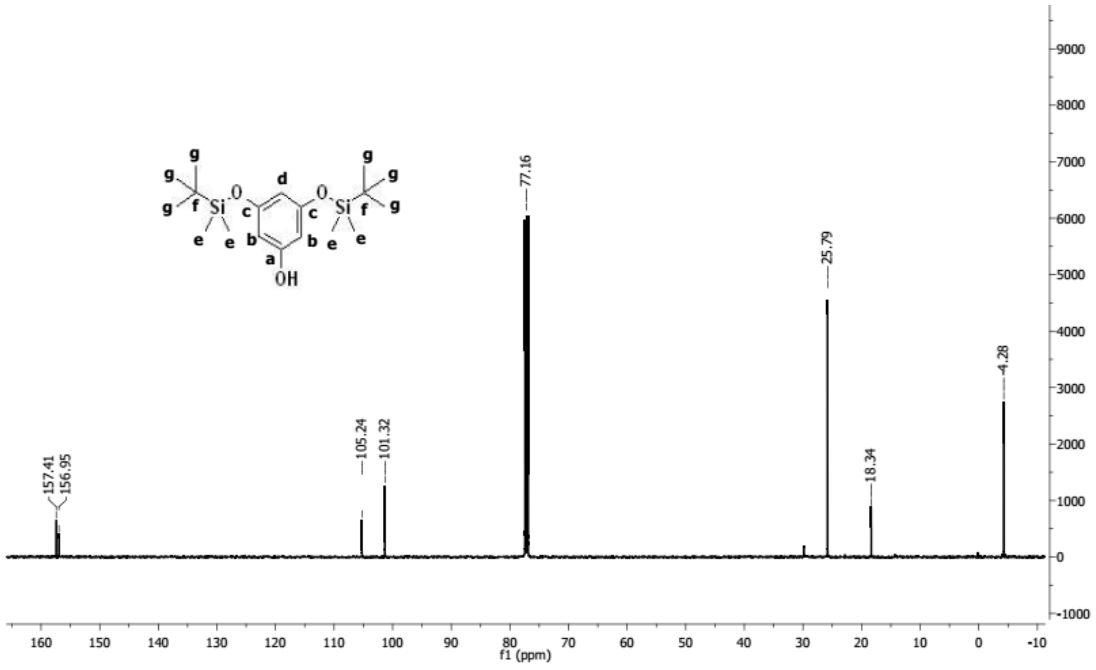

Fig (S7): ^{13}C NMR of DTBDMSP

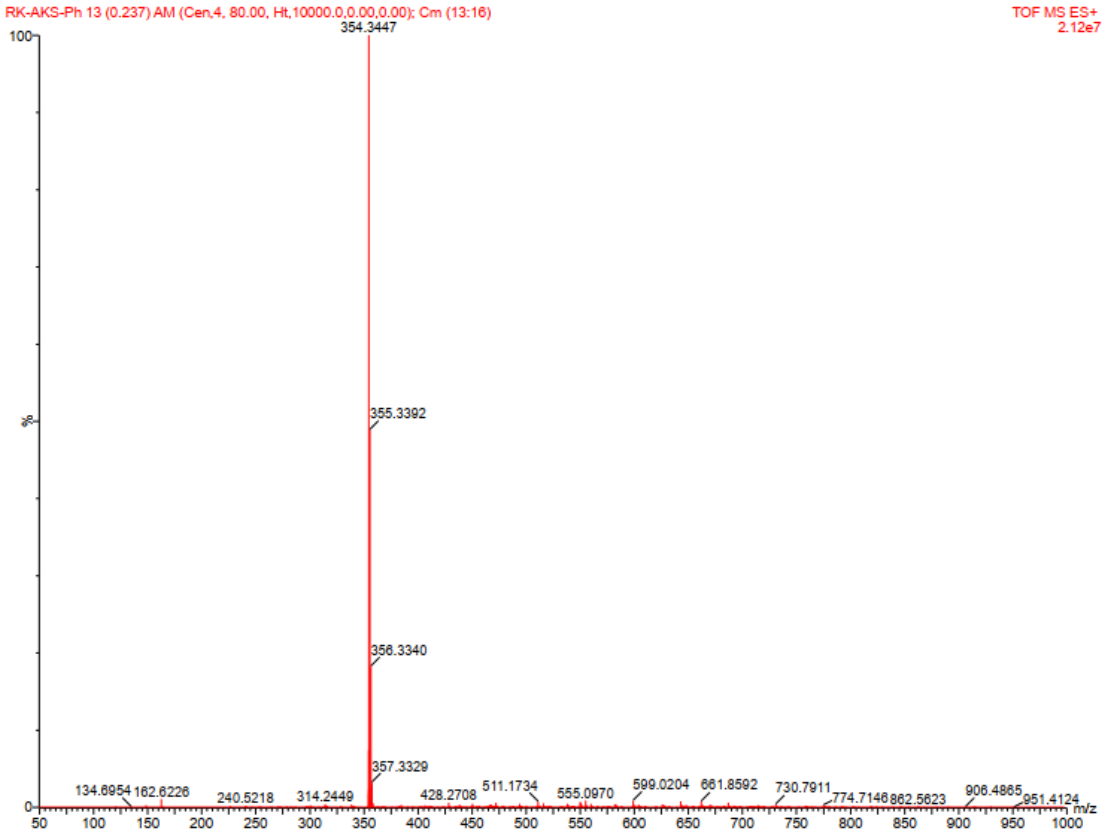

Fig (S8): HR-MS of DTBDMSP

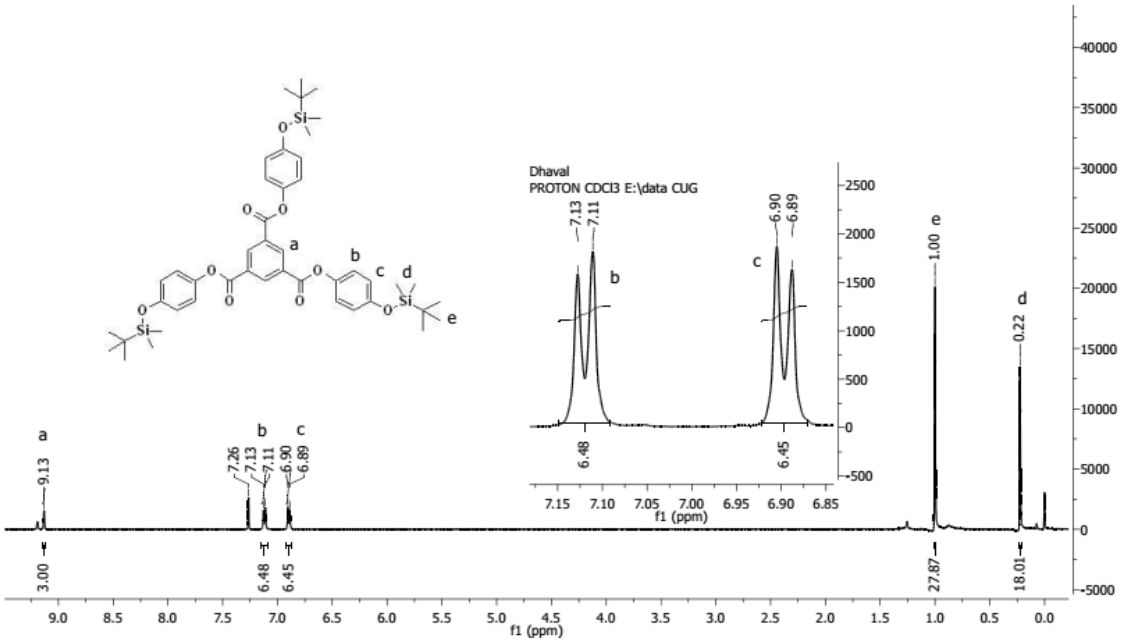

Fig (S9): ^{1}H NMR of Ta

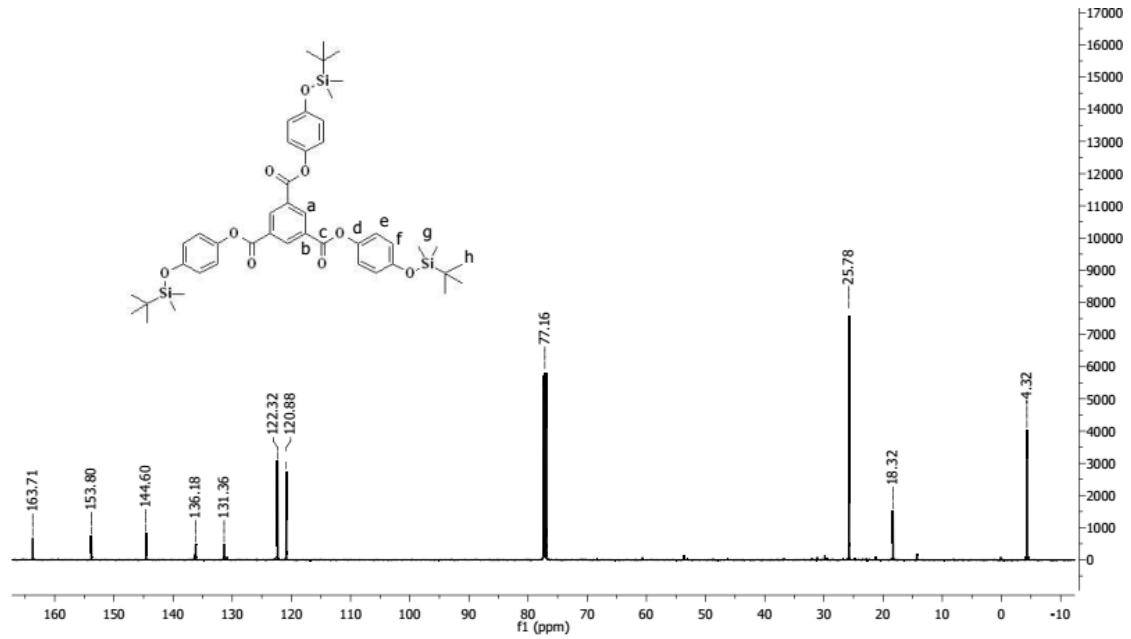

Fig (S10): ^{13}C NMR of Ta

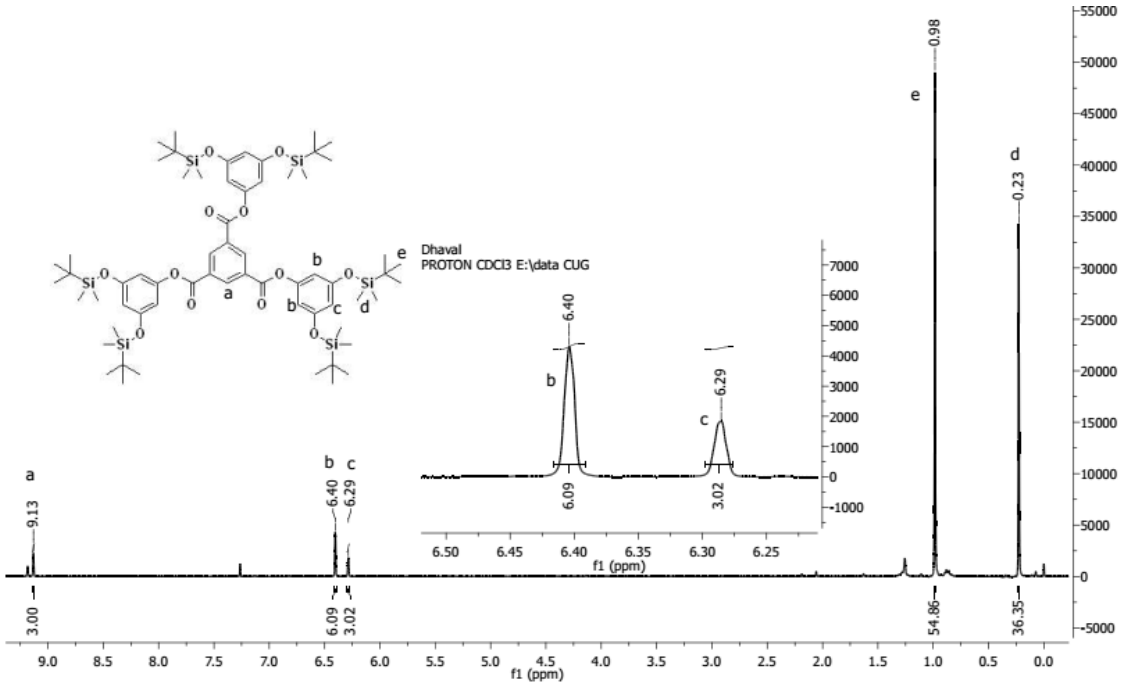

Fig (S11): ^{1}H NMR of Tb

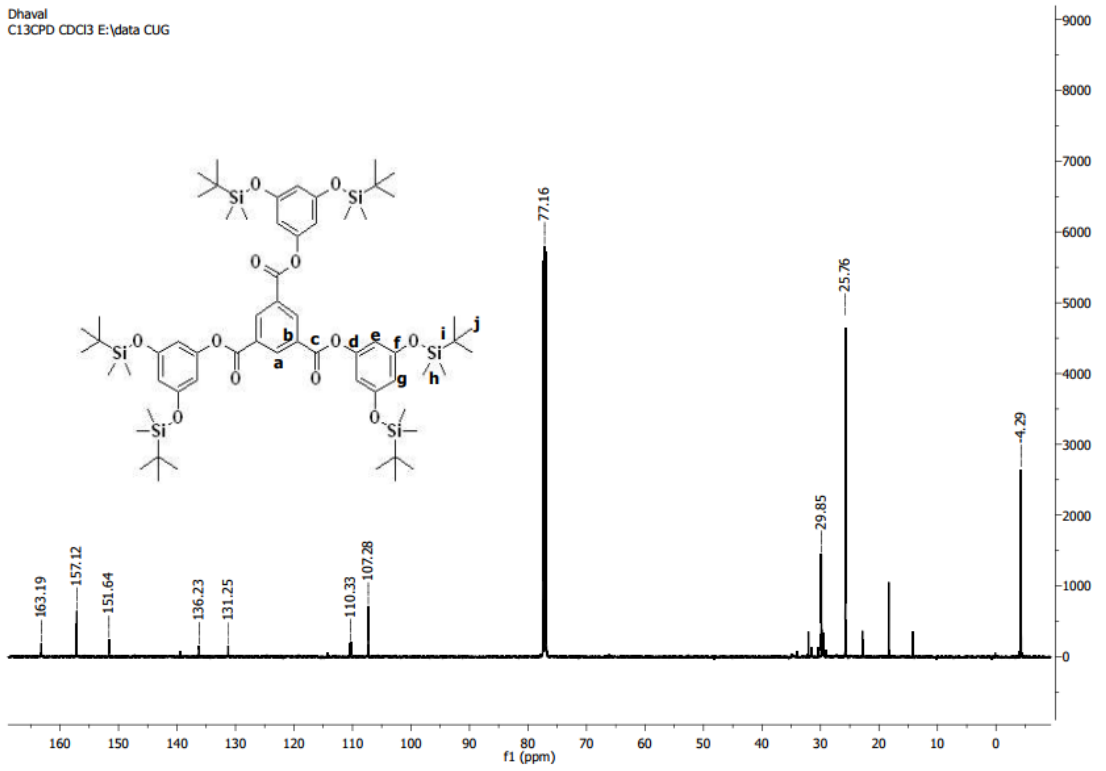

Fig (S12): ^{13}C NMR of Tb

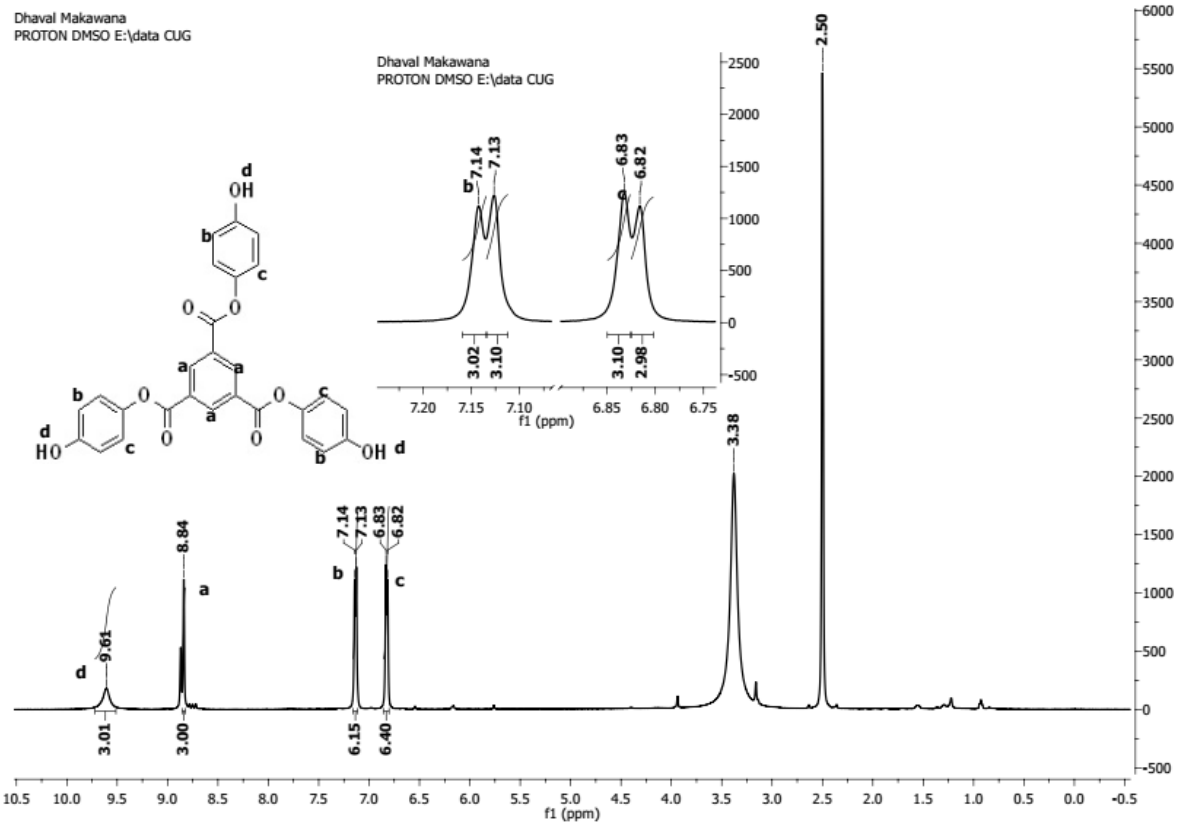

Fig (S13): ^{1}H NMR of T1

Note from the authors with regards to the peak close to 'a' in Figure S13 and the additional peak close to 'b' in Figure S16: In T1 (Figure S13) and T2 (Figure S16) during Ta and Tb synthesis (Scheme 9), one out of three ester bonds (-COO-) could have been disrupted in the trace. The hydrogen bonding between -Si- (silyl) of Ta and Tb and the -OH of deprotected T1 and T2 seem to develop stronger intermolecular forces with highly close solubilities of impurity. This might have resulted in the closely placed peak at 8.84 with T1 (Figure S13) and 6.15 ppm of T2 (Figure S16) due to a major dominance of T1 and T2. The T1 and T2 structures were confirmed with HR-MS mass spectra as M+1 peaks for T1 (Figure S15) and T2 (Figure S18) in the ESI file.

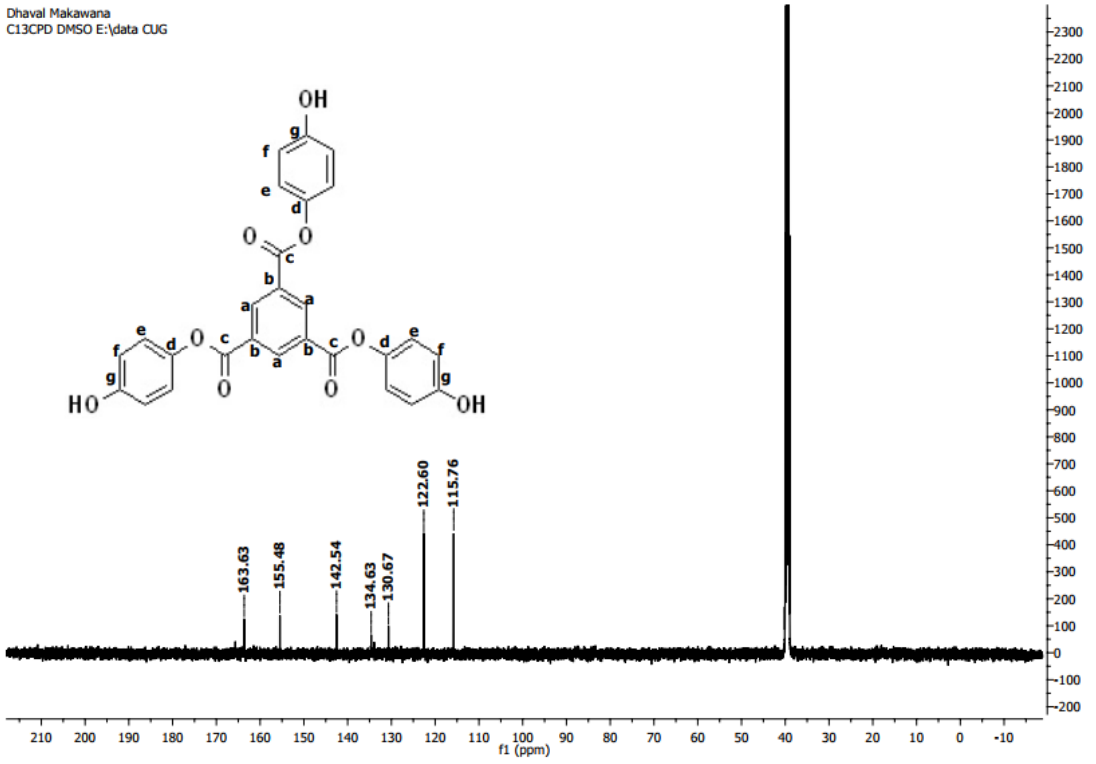

Fig (S14): ^{13}C NMR of T1

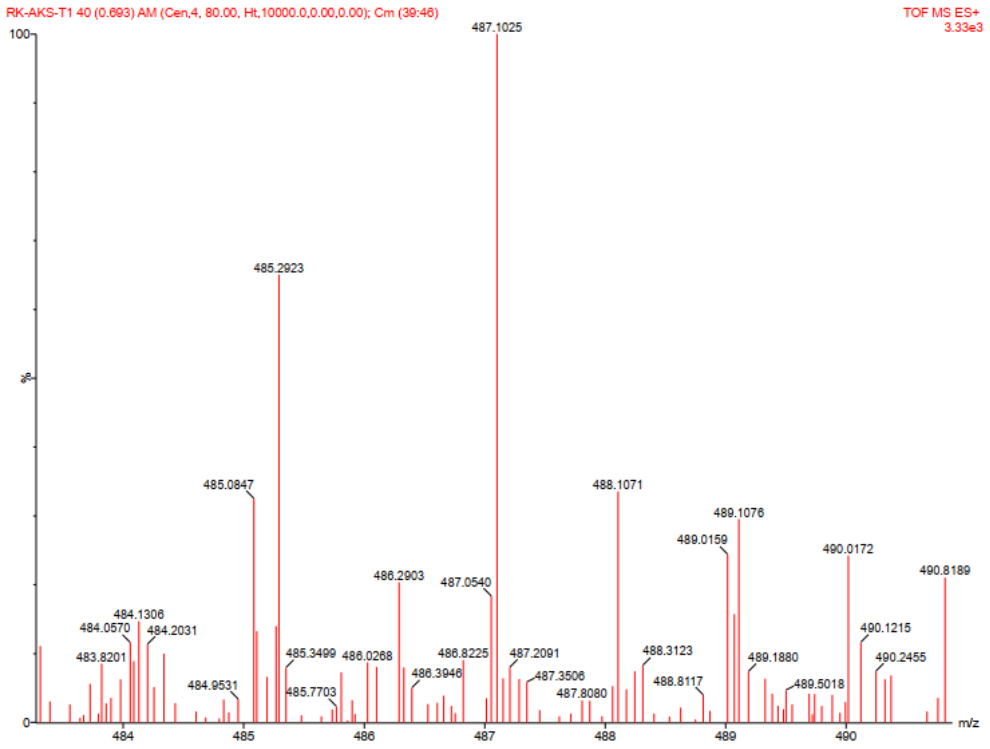

Fig (S15): HR-MS of T1

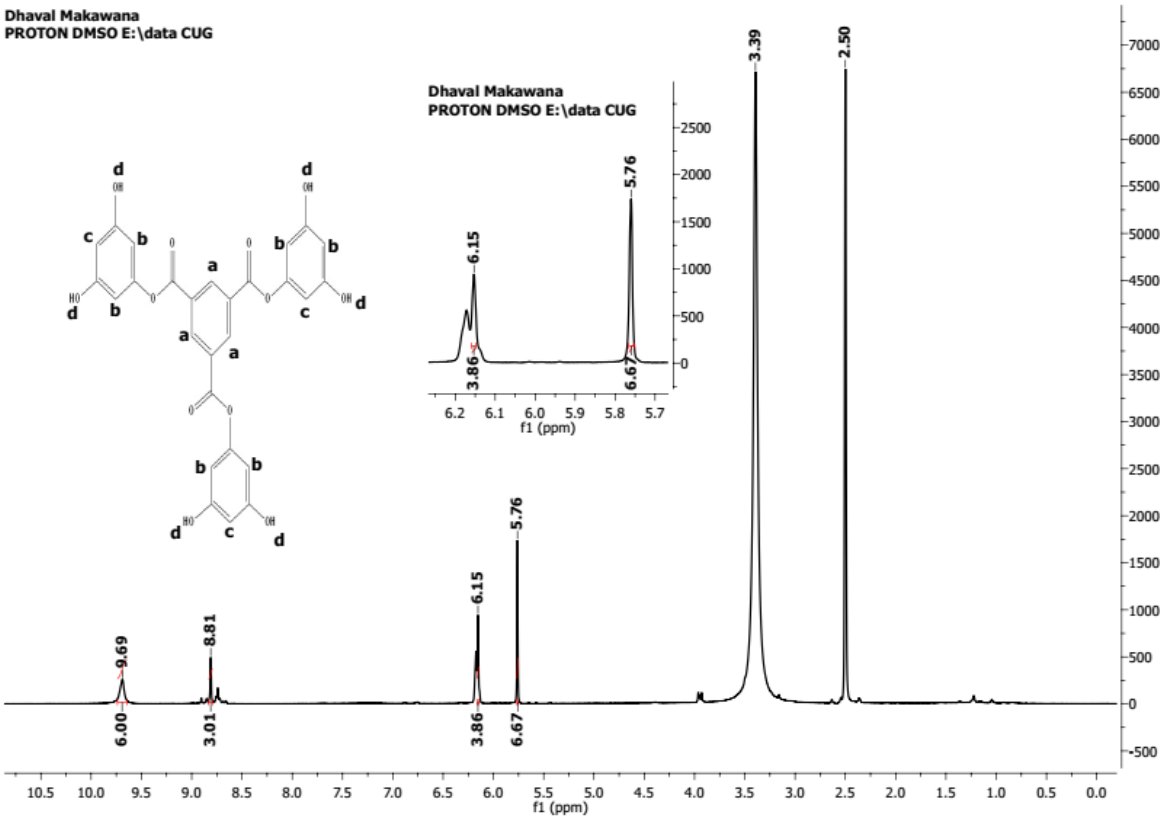

Fig (S16): ^{1}H NMR of T2

Note from the authors with regards to the peak close to 'a' in Figure S13 and the additional peak close to 'b' in Figure S16: In T1 (Figure S13) and T2 (Figure S16) during Ta and Tb synthesis (Scheme 9), one out of three ester bonds (-COO-) could have been disrupted in the trace. The hydrogen bonding between -Si- (silyl) of Ta and Tb and the -OH of deprotected T1 and T2 seem to develop stronger intermolecular forces with highly close solubilities of impurity. This might have resulted in the closely placed peak at 8.84 with T1 (Figure S13) and 6.15 ppm of T2 (Figure S16) due to a major dominance of T1 and T2. The T1 and T2 structures were confirmed with HR-MS mass spectra as M+1 peaks for T1 (Figure S15) and T2 (Figure S18) in the ESI file.

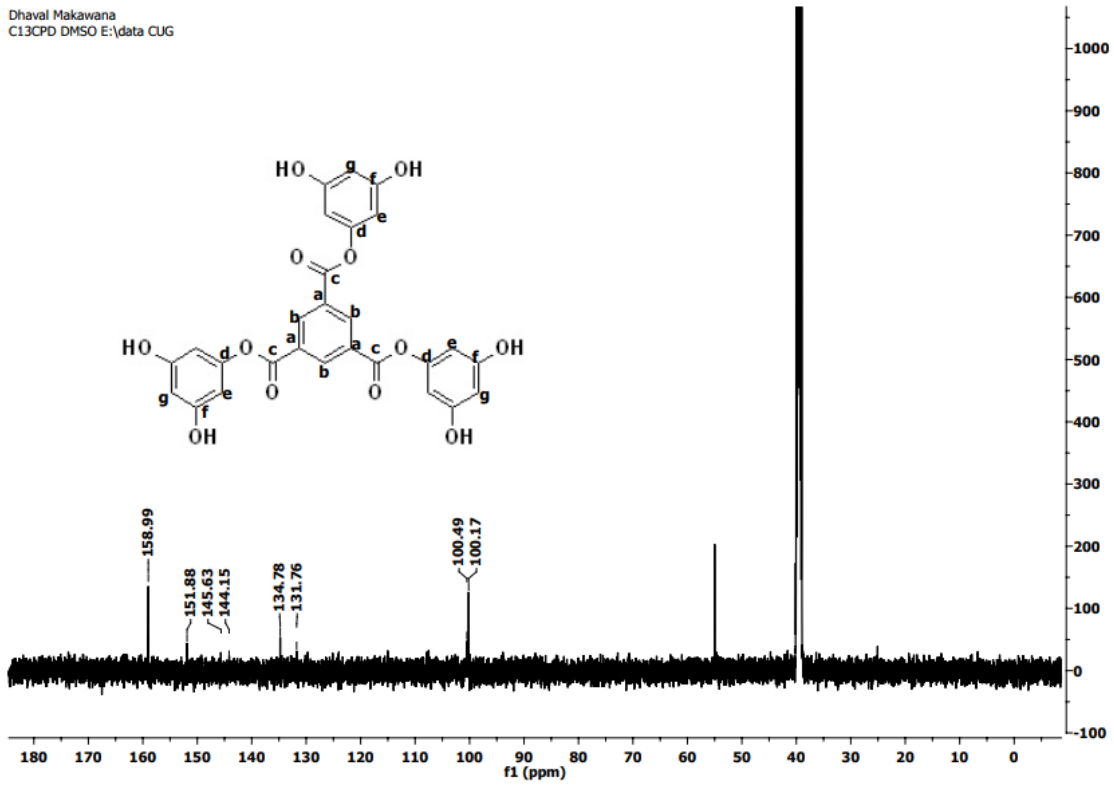

Fig (S17): ^{13}C NMR of T2

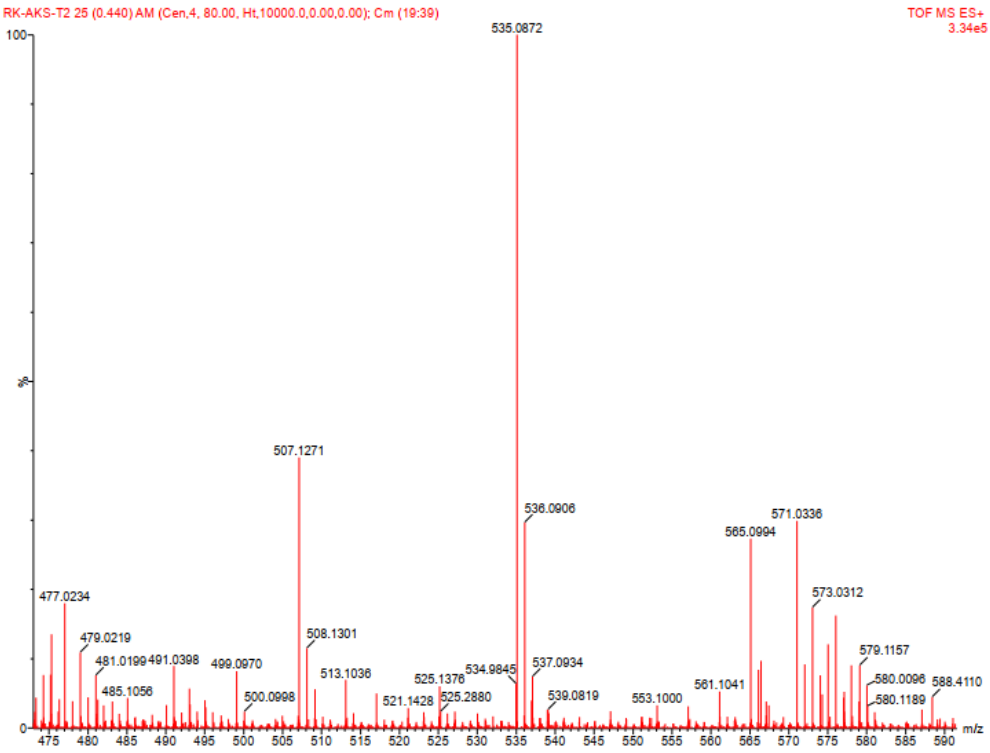

Fig (S18): HR-MS of T2