Supporting Information for Energy and Fuels

Partitioning of Crude Oil Acidic Compounds into Subfractions by Extrography and Identification of Isoprenoidyl Phenols and Tocopherols

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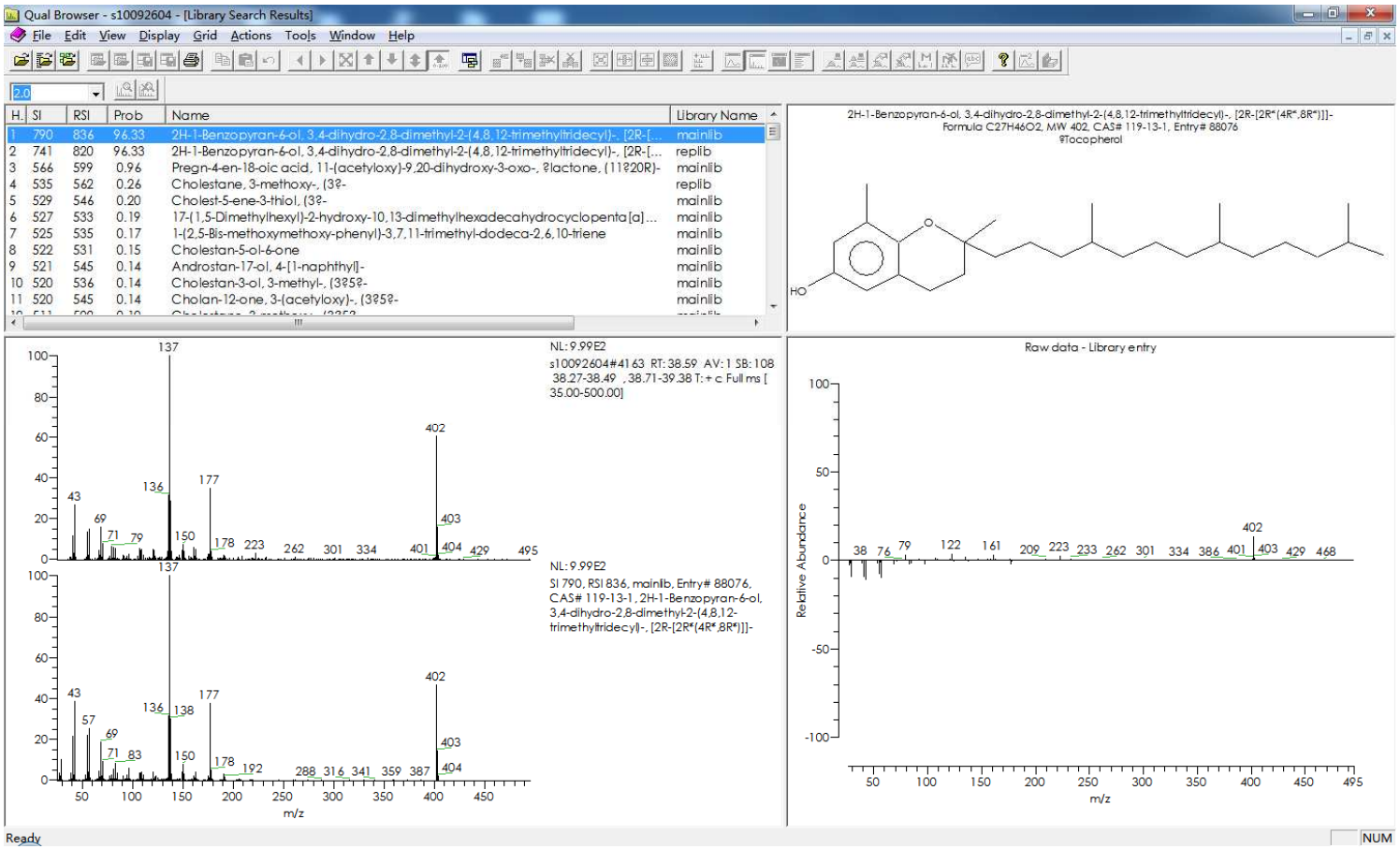

Figure S-1 NIST library search result of Peak B in Figure 3.

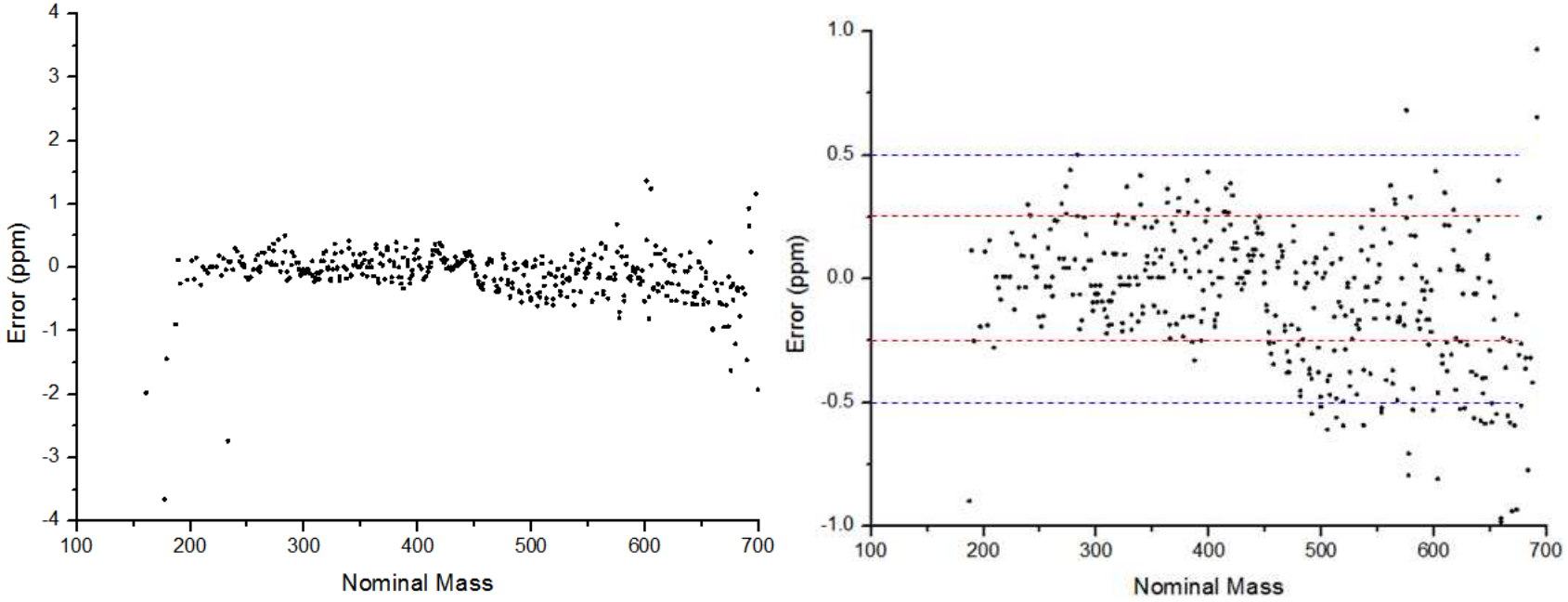

Figure S-2 Mass error distribution in the full mass range. The right-hand graph is the same as the left-hand one but with an expanded y-axis.

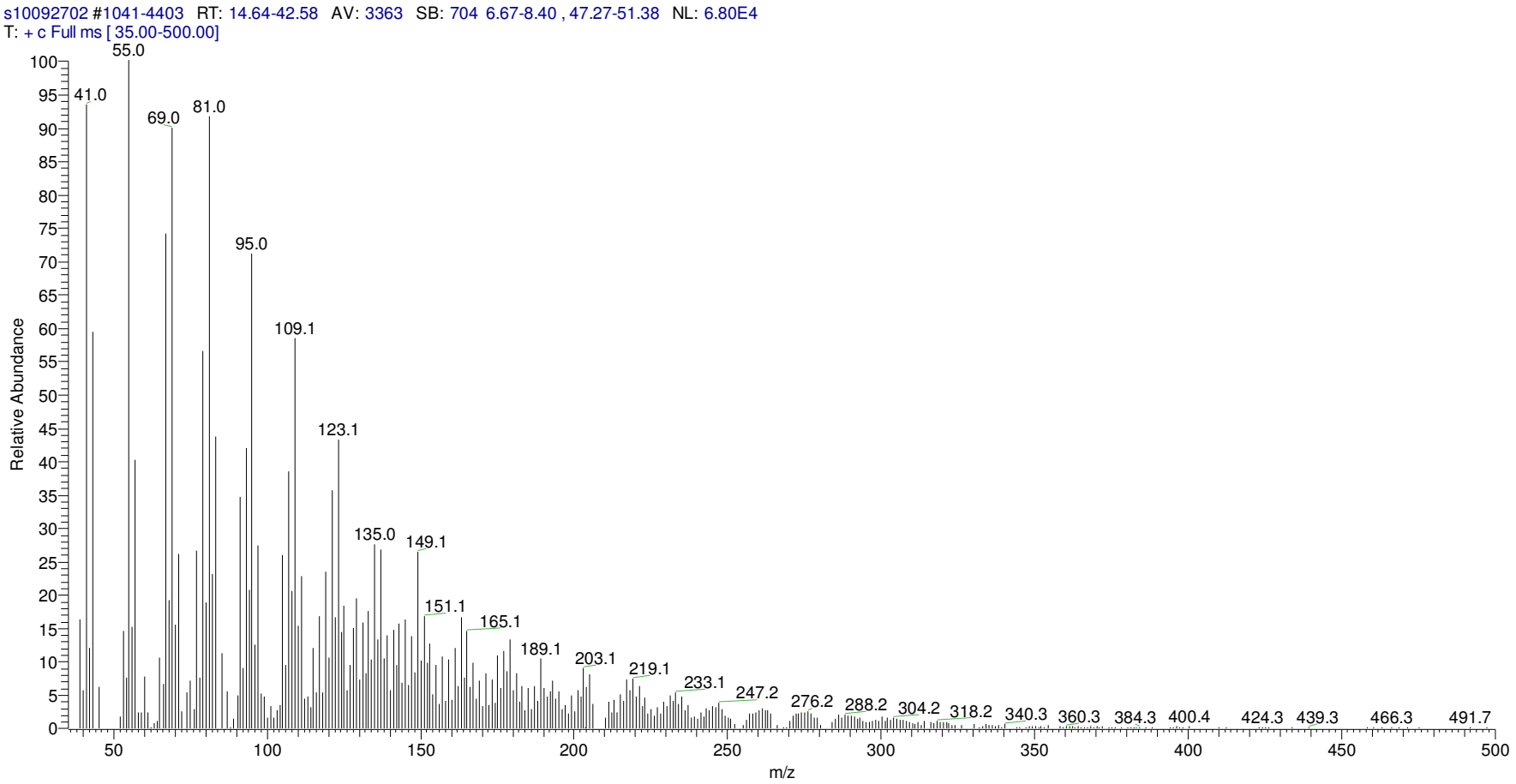

Figure S-3 Average mass spectra during the elution time 14.64-42.58 minutes of Fraction #9.

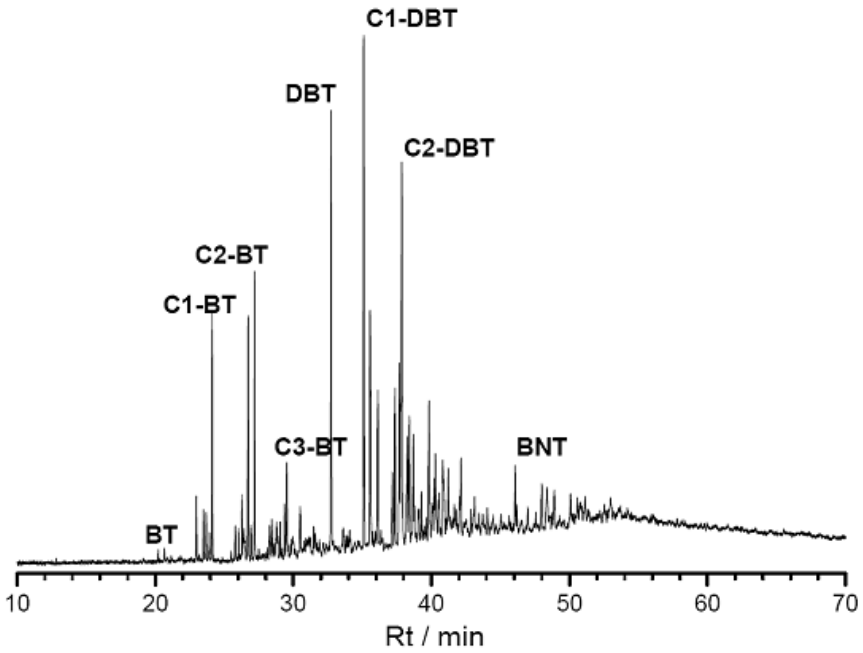

Figure S-4 Pulsed flame photometric detector (PFPD) gas chromatogram for sulfur compounds of the crude oil. BT: benzothiophene, DBT: dibenzothiophene, BNT: Benzonaphthothiophene. Programmed oven temperature: 50-1-50-5-300-30-300, Injector: 300℃ split ratio: 50:1, Constant Flow: 1 mL min^{-1}, Capillary column: HP-5 30m 0.25 mm 0.25 μm