SUPPORTING INFORMATION

Isomeric Separation and Structural Characterization of Acids in Petroleum by Ion Mobility Mass Spectrometry

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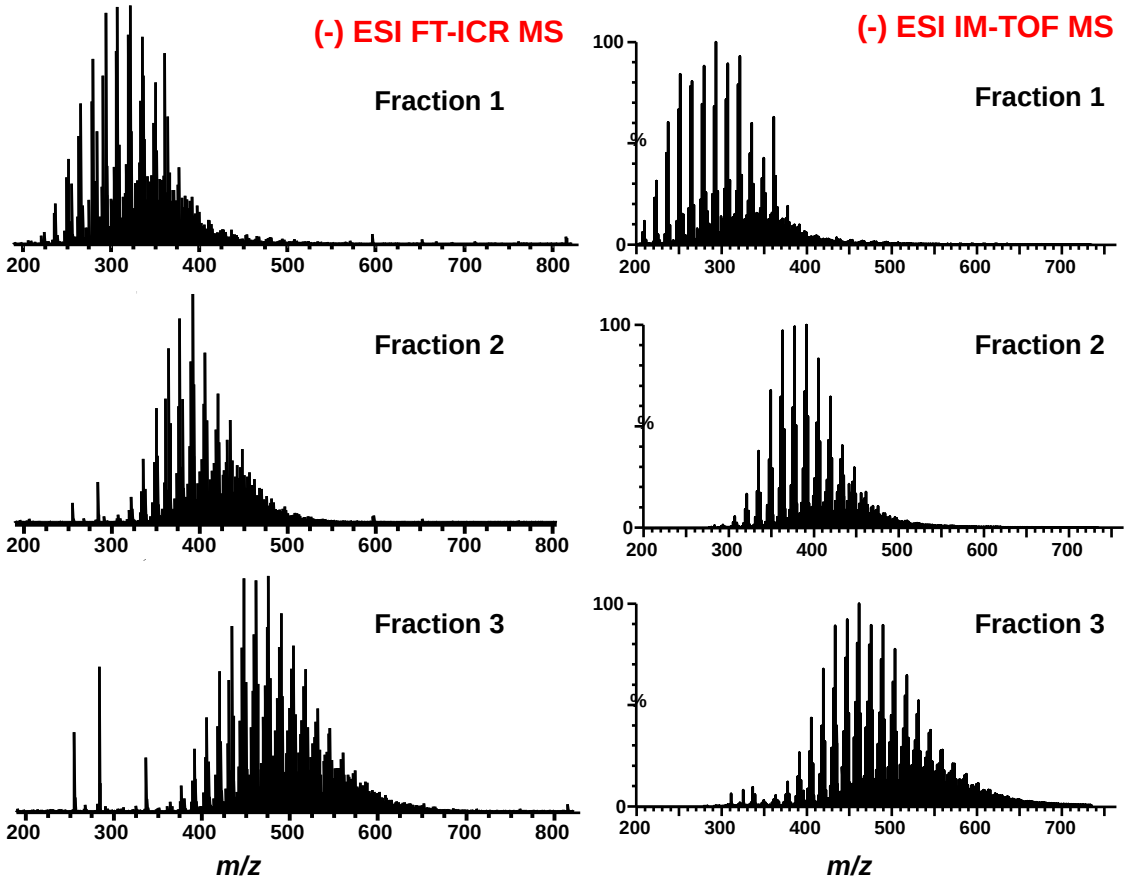

Figure S1. (-) ESI FT-ICR (left) and (-) ESI IM-TOF mass spectra for the three MAPS acid fractions.

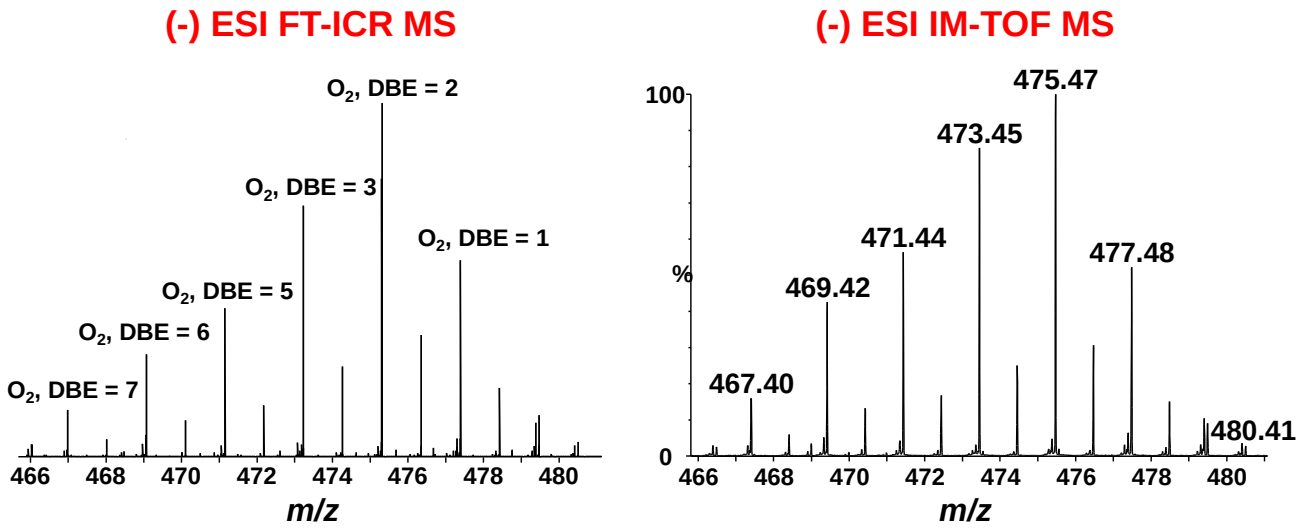

Figure S2. Mass scale-expanded segment of (-) ESI FT-ICR and (-) ESI IM-TOF mass spectra for Acid Fraction 3.

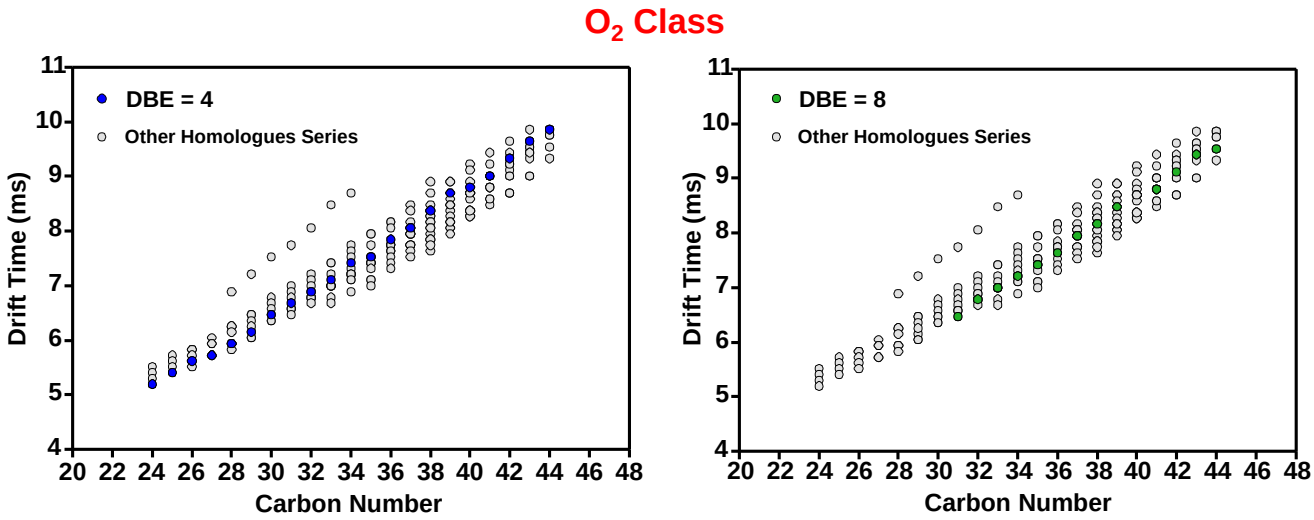

Figure S3. Drift time vs. carbon number for O_2 species in Acid Fraction 3. Ions of DBE = 4 (left) and DBE = 8 (right) are highlighted in blue and green, whereas the remaining O_2 species appear in light gray.

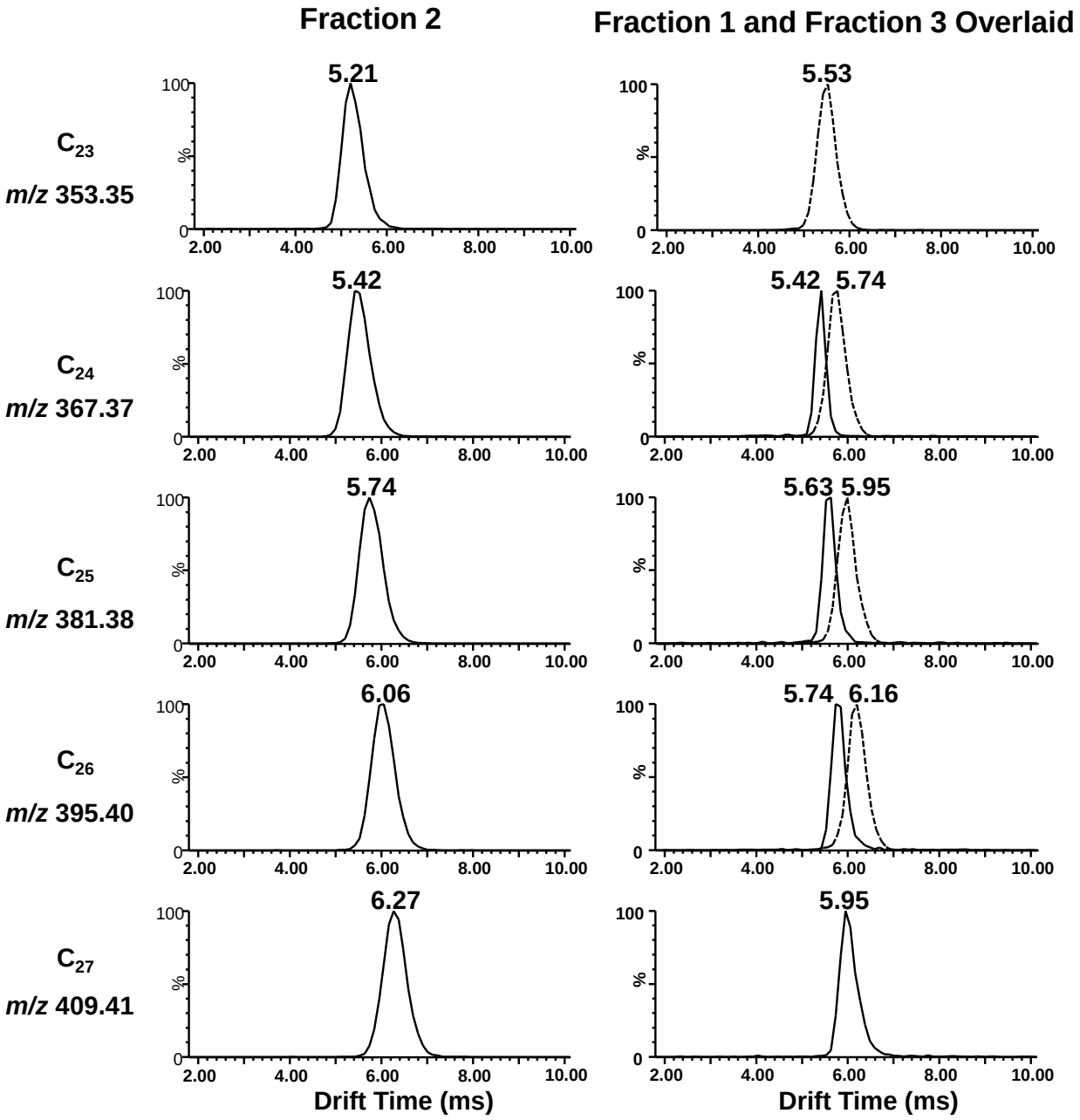

Figure S4. Mobiligrams extracted for O_2 species of DBE = 1 from Fraction 2 (left) and overlaid mobiligrams from Fraction 1 (solid line) and Fraction 3 (dashed line) (right).