

## Supporting information

Given below are NMR characterization data for the compounds used in the study “Behaviour of asphaltene model compounds at W/O interfaces”. The structures can be found in Figure 1.  $^1\text{H}$  NMR spectra were recorded on a Bruker Advance DPX 300 MHz spectrometer. An appropriate amount was dissolved in  $\text{CDCl}_3$  (99.8 atom % D) containing 0.05% (v/v) tetrametylsilane (TMS) as an internal standard and the peak of TMS was calibrated to 0.00 ppm. For PAP, 1 drop of  $d_6$ -DMSO (99.9 atom % D) was added to increase solubilisation.

**C5Pe:**  $\delta$  8.58 (2H, *s*, br., arom.),  $\delta$  8.52 (2H, *d*, arom.,  $^3J_{ortho} = 8.1$  Hz),  $\delta$  8.45 (2H, *d*, arom.,  $^3J_{ortho} = 8.1$  Hz),  $\delta$  8.40 (2H, *d*, arom.,  $^3J_{ortho} = 8.1$  Hz),  $\delta$  5.18 (1H, *m*,  $\text{NCHCH}_2$ ),  $\delta$  4.18 (2H, *t*,  $\text{NCH}_2$ ),  $\delta$  2.25 (2H, *m*,  $\text{NCH}(\text{CH}_2)_a$ ),  $\delta$  2.0 – 1.0 (26H, *m*, alkyl+  $\text{NCH}(\text{CH}_2)_b$ ),  $\delta$  0.86 (6H, *t*,  $^3J_{H-H} = 6.9$  Hz).

**PAP:**  $\delta$  8.46 (2H, *s*, br., arom.),  $\delta$  8.30 (2H, *d*, arom.,  $^3J_{ortho} = 8.1$  Hz),  $\delta$  8.27 (2H, *d*, arom.,  $^3J_{ortho} = 8.1$  Hz),  $\delta$  8.21 (2H, *d*, arom.,  $^3J_{ortho} = 8.1$  Hz),  $\delta$  7.08 (2H, *d*, Ph.,  $^3J_{ortho} = 6.9$  Hz),  $\delta$  7.01 (2H, *t*, Ph.,  $^3J_{ortho} = 7.2$  Hz),  $\delta$  6.92 (1H, *d*, Ph.,  $^3J_{ortho} = 7.2$  Hz),  $\delta$  5.91 (H, *dd*,  $\text{PhCH}_2\text{CHN}$ ,  $^3J_{H-H} = 10.2$  Hz, 5.4 Hz),  $\delta$  5.05 (1H, *m*,  $\text{NCH-alkyl}$ ),  $\delta$  3.60 (1H, *dd*,  $\text{Ph-CH}_{2a}$ ,  $^2J_{H-H} = 14.4$  Hz,  $^3J_{H-H} = 5.4$  Hz),  $\delta$  3.45 (1H, *dd*,  $\text{Ph-CH}_{2b}$ ,  $^2J_{H-H} = 14.4$  Hz,  $^3J_{H-H} = 10.2$  Hz),  $\delta$  2.11 (2H, *m*,  $\text{CH}_2\text{-alkyl}$ )  $\delta$  1.75 (2H, *m*,  $\text{CH}_2\text{-alkyl}$ ),  $\delta$  1.3 – 1.0 (16H, *m*, alkyl),  $\delta$  0.72 (6H, *t*,  $^3J_{H-H} = 6.9$  Hz).

**BisA:** 8.70 – 8.56 (8H, br., arom.),  $\delta$  5.18 (2H, *m*,  $\text{NCHCH}_2$ ),  $\delta$  2.25 (4H, *m*,  $\text{NCH}(\text{CH}_2)_a$ ),  $\delta$  1.87 (4H, *m*,  $\text{NCH}(\text{CH}_2)_b$ ),  $\delta$  1.4 – 1.1 (32H, *m*, alkyl),  $\delta$  0.83 (12H, *t*,  $^3J_{H-H} = 6.9$  Hz).