Supplementary Material

Article

Impact of Fuel Contents on Tribological Performance of PAO Base Oil and ZDDP

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Table S1. Comparison of wear rates of cast iron flats (10^{-7} $mm^3/(N \cdot m)$).

	Test-1	**Test-2**	**Test-3**
PAO	165*	2.22	3.16
PAO-3%Fuel	1.88	2.01	4.75
PAO-6%Fuel	6.07	2.49	
PAO-20%Fuel	8.84	8.86	7.51
PAO-1%H_2O	1.58	3.71	
PAO-ZDDP	2.68	1.83	
PAO-ZDDP-1%H_2O	2.74	2.85	
PAO-ZDDP-3%Fuel	3.98	2.87	

* scuffed test.

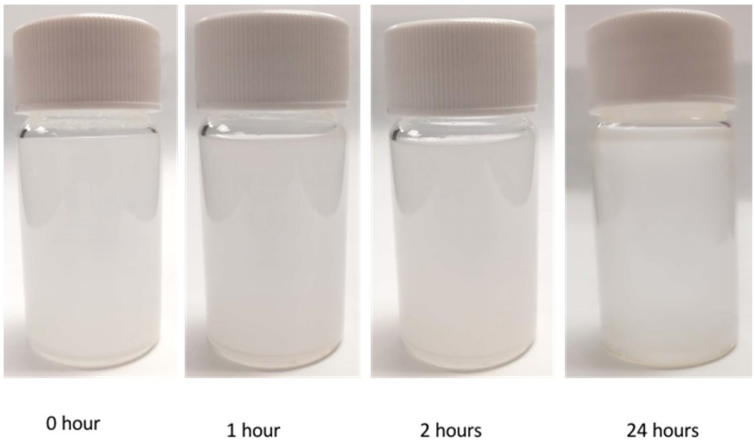

Figure S1. Emulsion of 1% water in PAO after 15 min sonication (0 h), and after 1 h, 2 h, and 24 h.

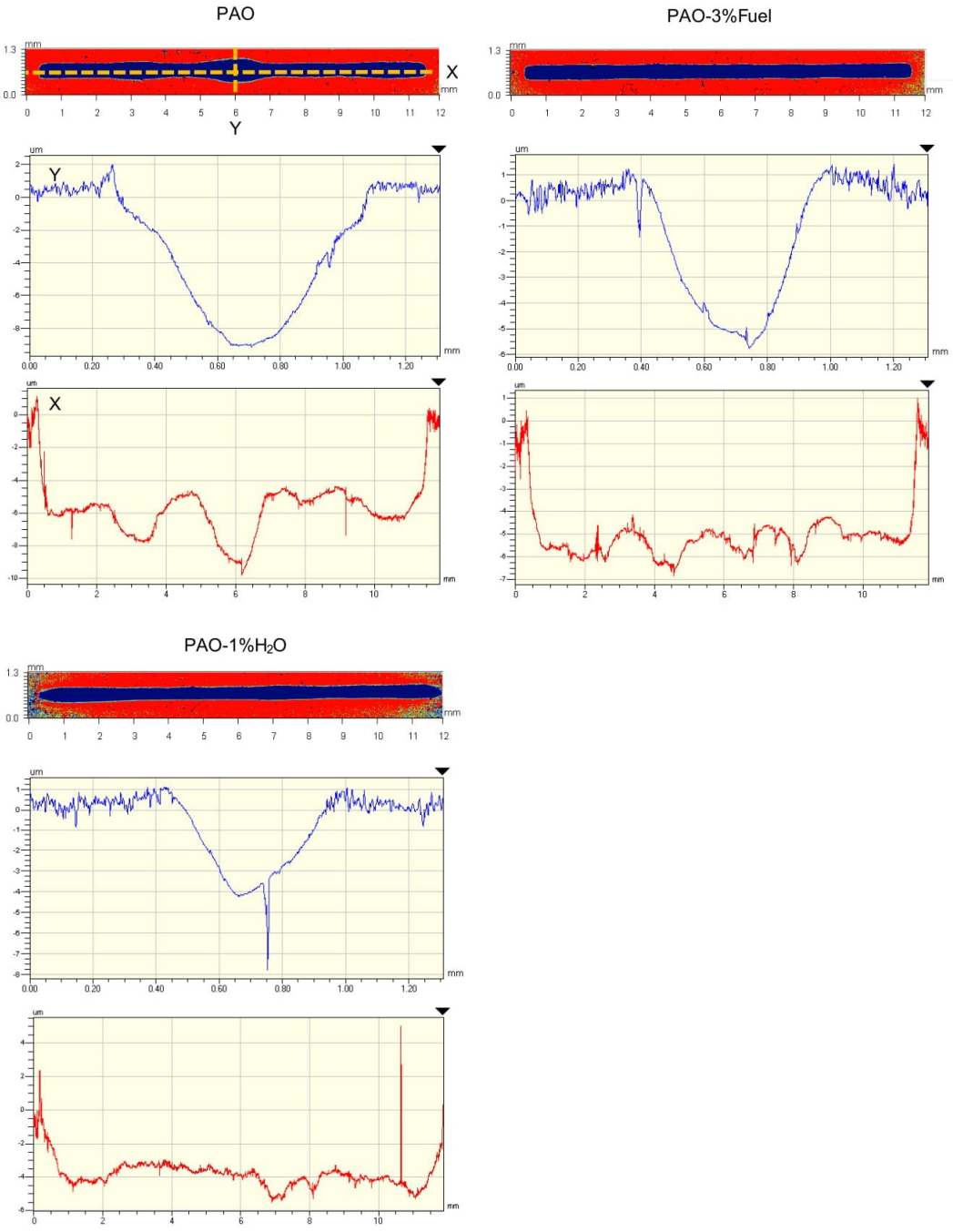

Figure S2. Wear track morphology and cross-sectional 2D profiles of PAO, PAO-3%Fuel, and PAO-1%H_2O.

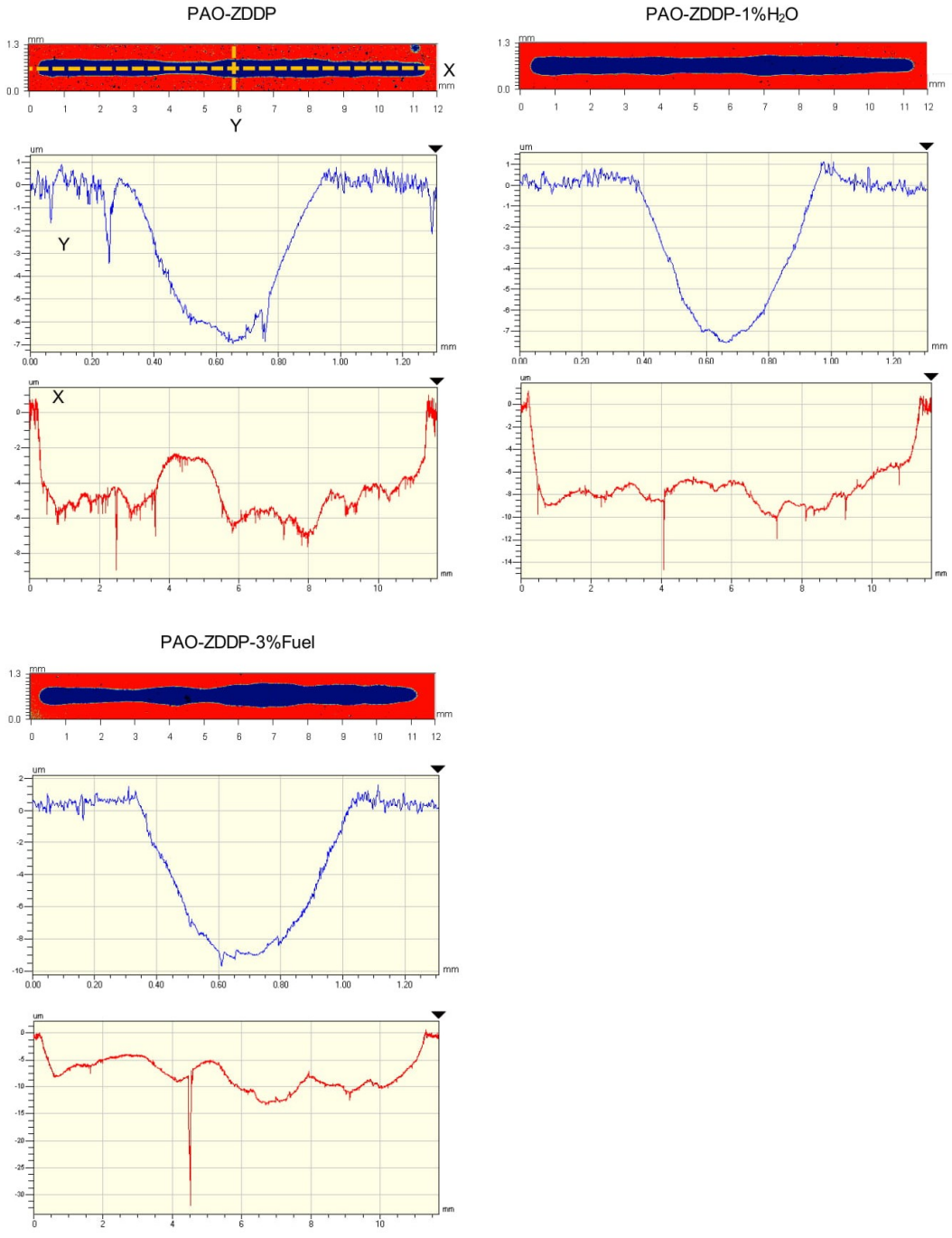

Figure S3. Wear track morphology and cross-sectional 2D profiles of PAO-ZDDP, PAO-ZDDP-1%H_2O, and PAO-ZDDP-3%Fuel.