Electronic Supplementary Material (ESI) for RSC Advances.
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Supporting Information:

Autonomous movement in mixed metal based soft-oxometalates induced by CO2 evolution and topological effects on their propulsion

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ESI videos:

- SOMs without fuel.avi
- SOMs in 0.0119 $NaHCO_3$ mol L^{-1}.avi
- SOMs in 0.0238 $NaHCO_3$ mol L^{-1}.avi
- SOMs in 0.0416 $NaHCO_3$ mol L^{-1}.avi
- SOMs in 0.0595 $NaHCO_3$ mol L^{-1}.avi
- SOMs in 0.0952 $NaHCO_3$ mol L^{-1}.avi
- SOMs in 0.1190 $NaHCO_3$ mol L^{-1}.avi
- SOMs in 0.1428 $NaHCO_3$ mol L^{-1}.avi
- SOMs in 0.1785 $NaHCO_3$ mol L^{-1}.avi
- SOMs in 0.2142 $NaHCO_3$ mol L^{-1}.avi
- SOMs in 0.2381 $NaHCO_3$ mol L^{-1}.avi
- SOMs in 0.2976 $NaHCO_3$ mol L^{-1}.avi
- 0.08 V_Mo loading.avi
- 0.10 V_Mo loading.avi
- 0.12 V_Mo loading.avi
- 0.14 V_Mo loading.avi
- 0.17 V_Mo loading.avi
- 0.24 V_Mo loading.avi
- 0.35 V_Mo loading.avi
- 0.50 V_Mo loading.avi

Table S1: Viscosity of the SOM dispersions:

V/Mo loading	Viscosity (PI)
0.08	5.55×10^{-6}
0.10	5.63×10^{-6}
0.12	5.68×10^{-6}
0.14	5.69×10^{-6}
0.17	5.78×10^{-6}
0.24	6.48×10^{-6}
0.35	8.16×10^{-6}
0.50	9.75×10^{-6}

Table S2: Diffusion coefficient of the SOM dispersions:-

V/Mo loading	Diffusion coefficient (X 10^{-9} m^2s^{-1})
0.08	1.319
0.10	1.230
0.12	2.060
0.14	1.739
0.17	1.621
0.24	1.070
0.35	1.220
0.50	0.946

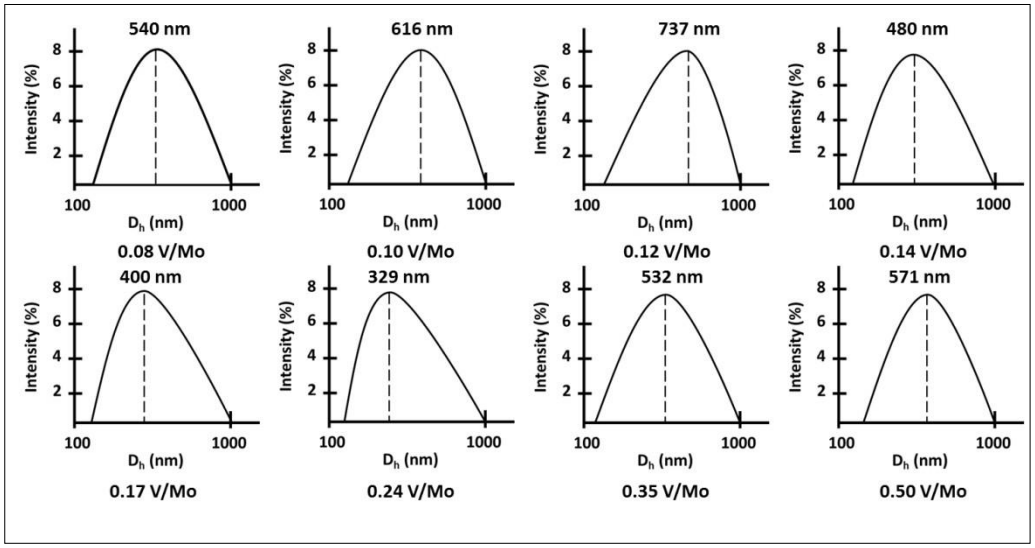

Fig. S1 The DLS size distribution plots showing the hydrodynamic diameter of the SOMs at different V/Mo loadings.

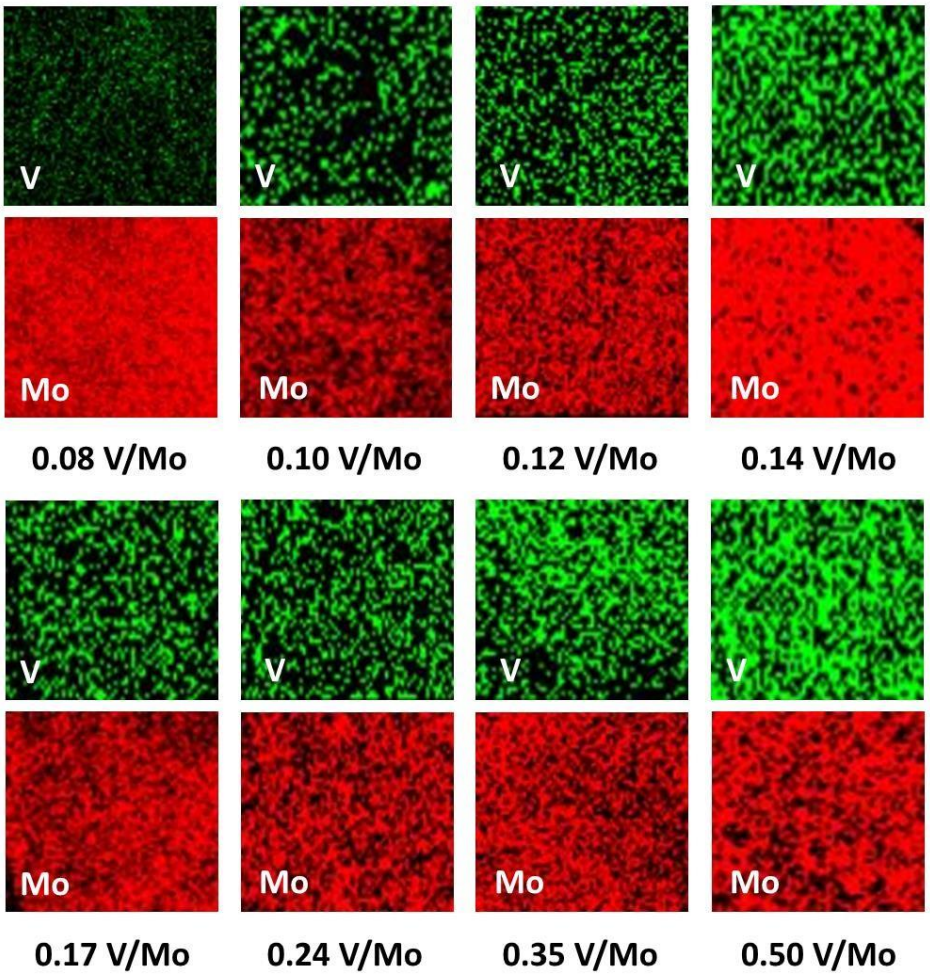

Fig. S2 EDAX map for different loadings of V/Mo SOMs. Color code: green indicates vanadium (V) and red indicates molybdenum (Mo).