Dawson type polyoxometalate based-poly ionic liquid supported on different carbon materials for high-efficiency oxidative desulfurization with molecular oxygen as oxidant

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Fig. S1 XRD spectra of GO and CA

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Fig. S2 EDX images of P[C2VP]MoV/AC (a), P[C2VP]MoV/CA (b) P[C2VP]MoV/CNTs (c) and

P[C2VP]MoV/GO (d)



Fig. S3 EDX mapping for the $P[C_2VP]MoV/AC$

sample	Element content (%)		content of MoV
	Мо	V	(mmol/g)
P[C ₂ VP]MoV/AC	17.50	1.15	0.114
P[C ₂ VP]MoV/CA	16.27	1.08	0.106
P[C ₂ VP]MoV/CNTs	17.96	1.19	0.117
P[C ₂ VP]MoV/GO	15.51	1.03	0.101
P[C ₂ VP]MoV/CA-ac*	11.04	0.71	0.071

Table S1 ICP-AES analysis of different catalysts

* After eight consecutive catalytic reactions, the material was separated and tested.

Table S2 Adsorption performance of different desulfurization samples

1	P[C ₂ VP]MoV/AC	8.9
2	P[C ₂ VP]MoV/CA	9.4
3	P[C ₂ VP]MoV/CNTs	1.3
4	P[C ₂ VP]MoV/GO	3.0