Electronic supplementary materials

Support effect in oxidative desulfurization by SILCs with Mo- and W-heteropolyanions

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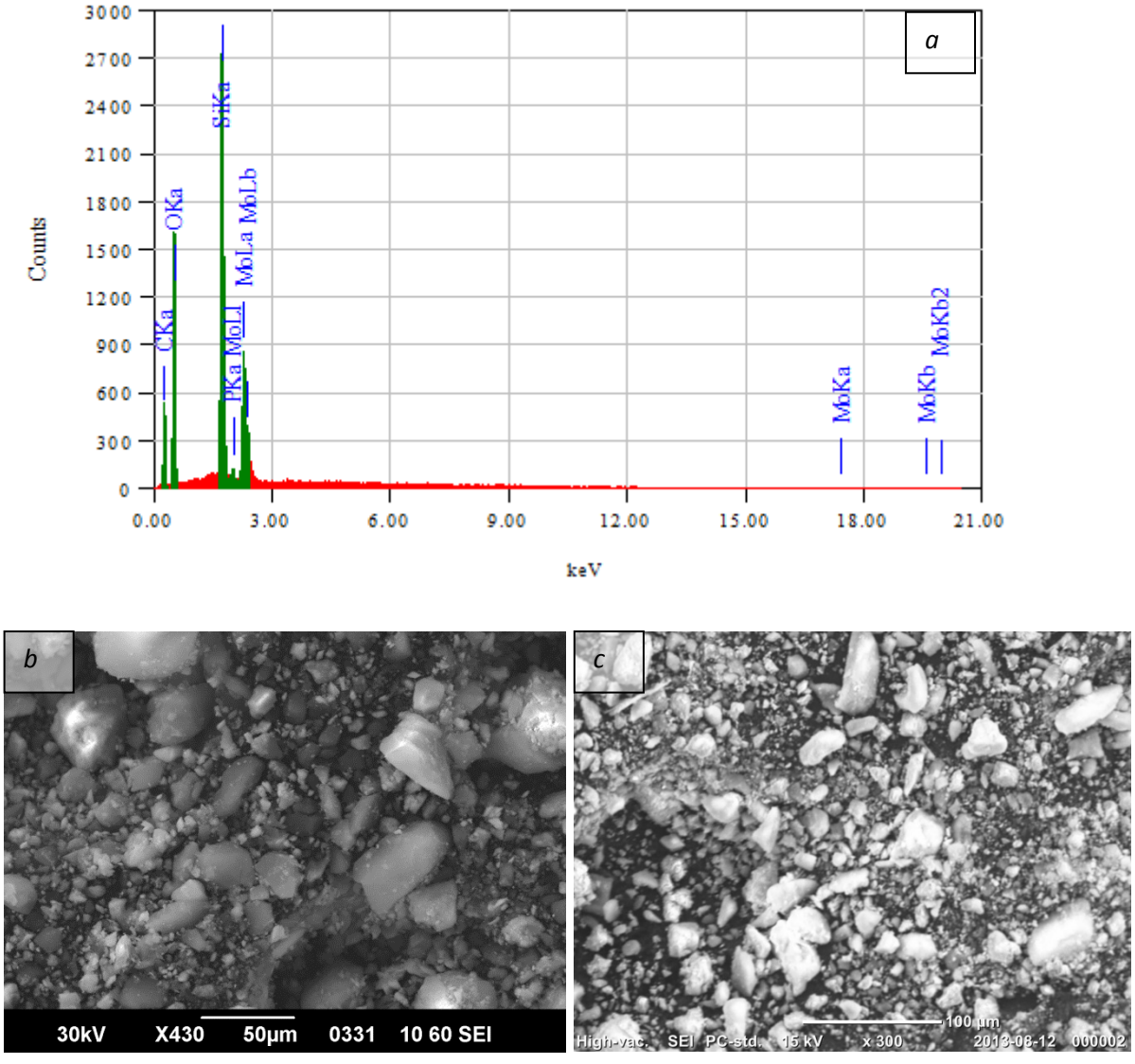

Figure S1. SEM-EDA analysis spectra (a) and images (b,c) for PMo-Silochrome

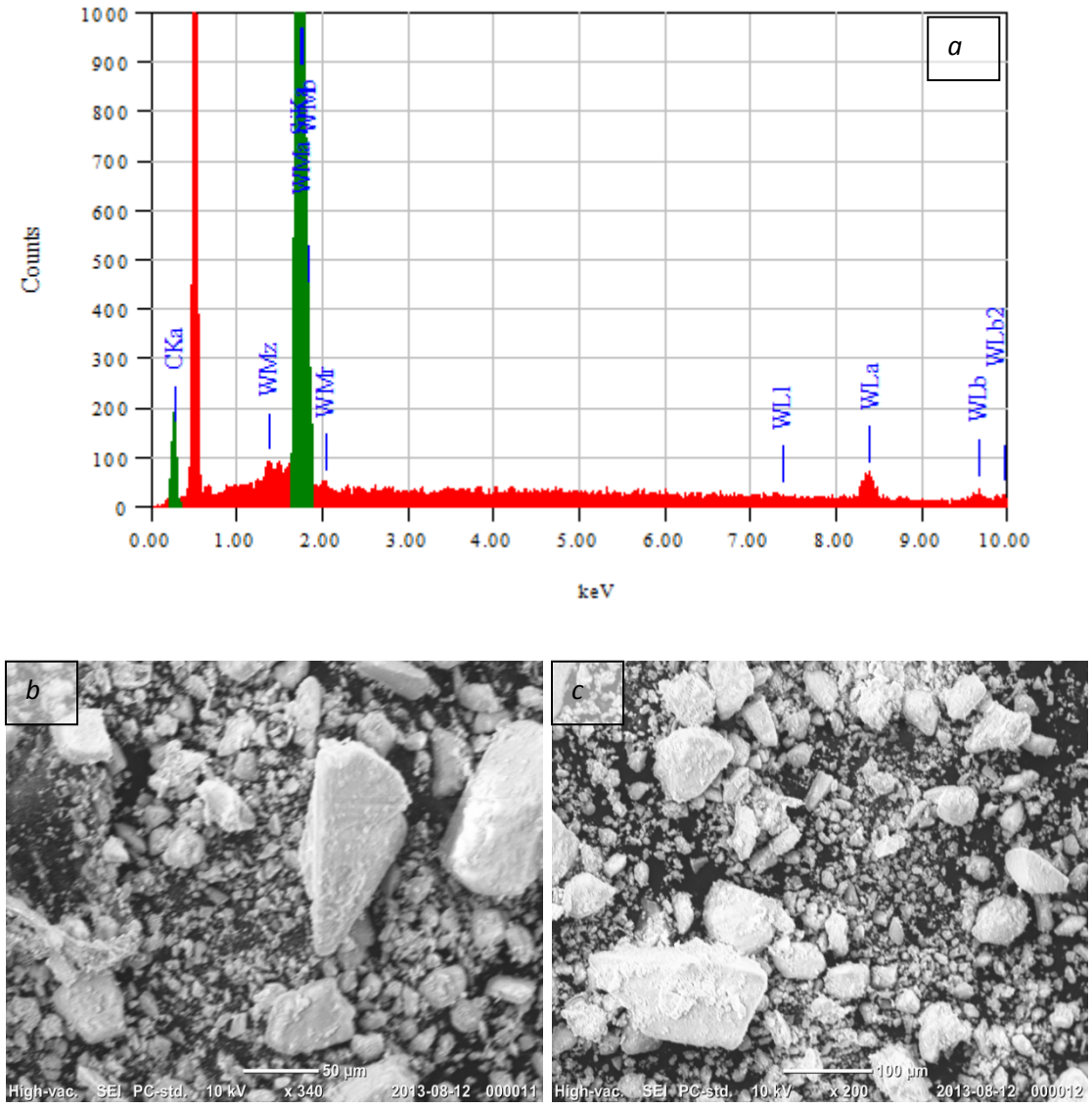

Figure S2. SEM-EDA analysis spectra (a) and images (b,c) for PW-Silochrome

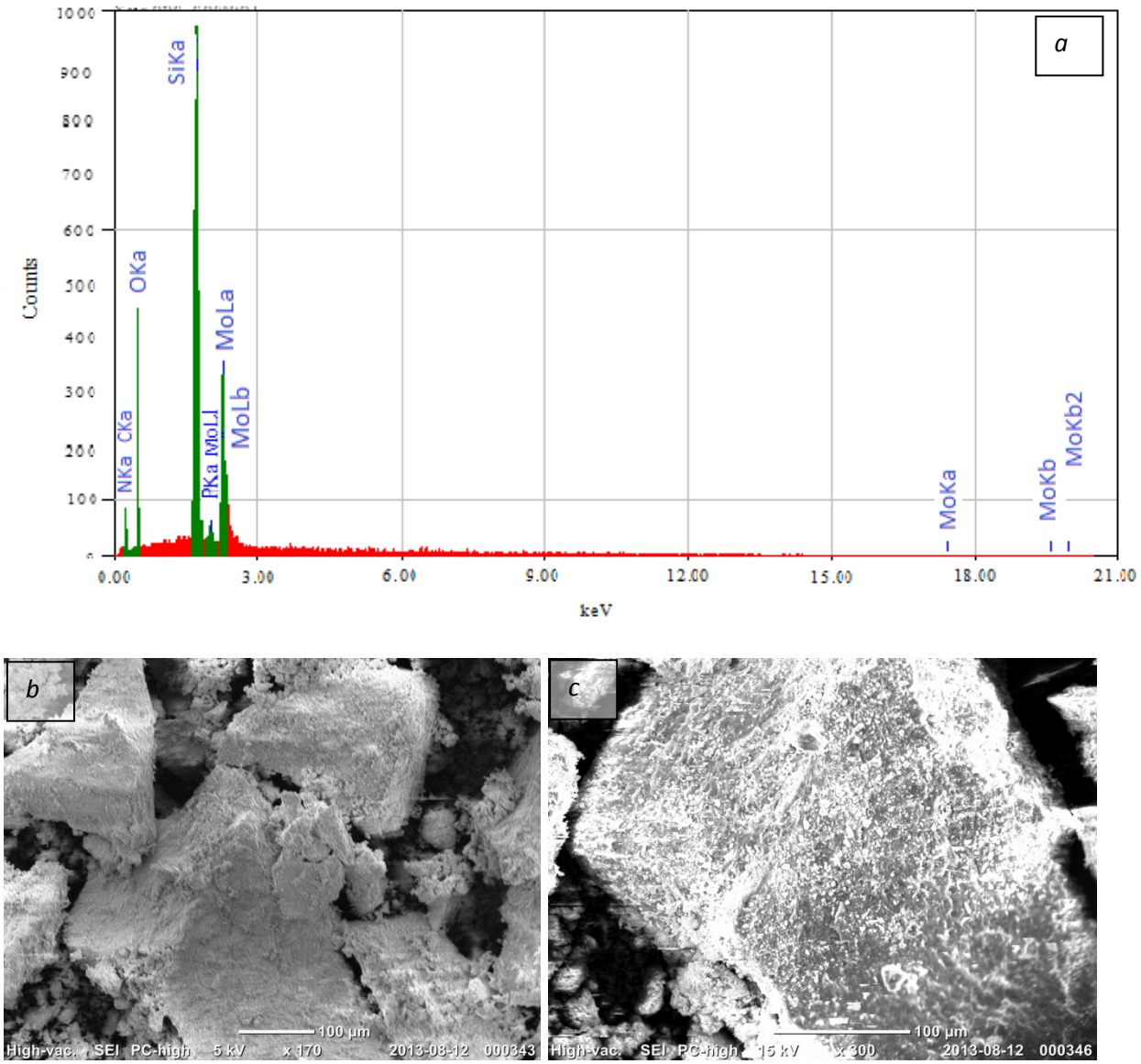

Figure S3. SEM-EDA analysis spectra (a) and images (b,c) for PMo- Perlkat

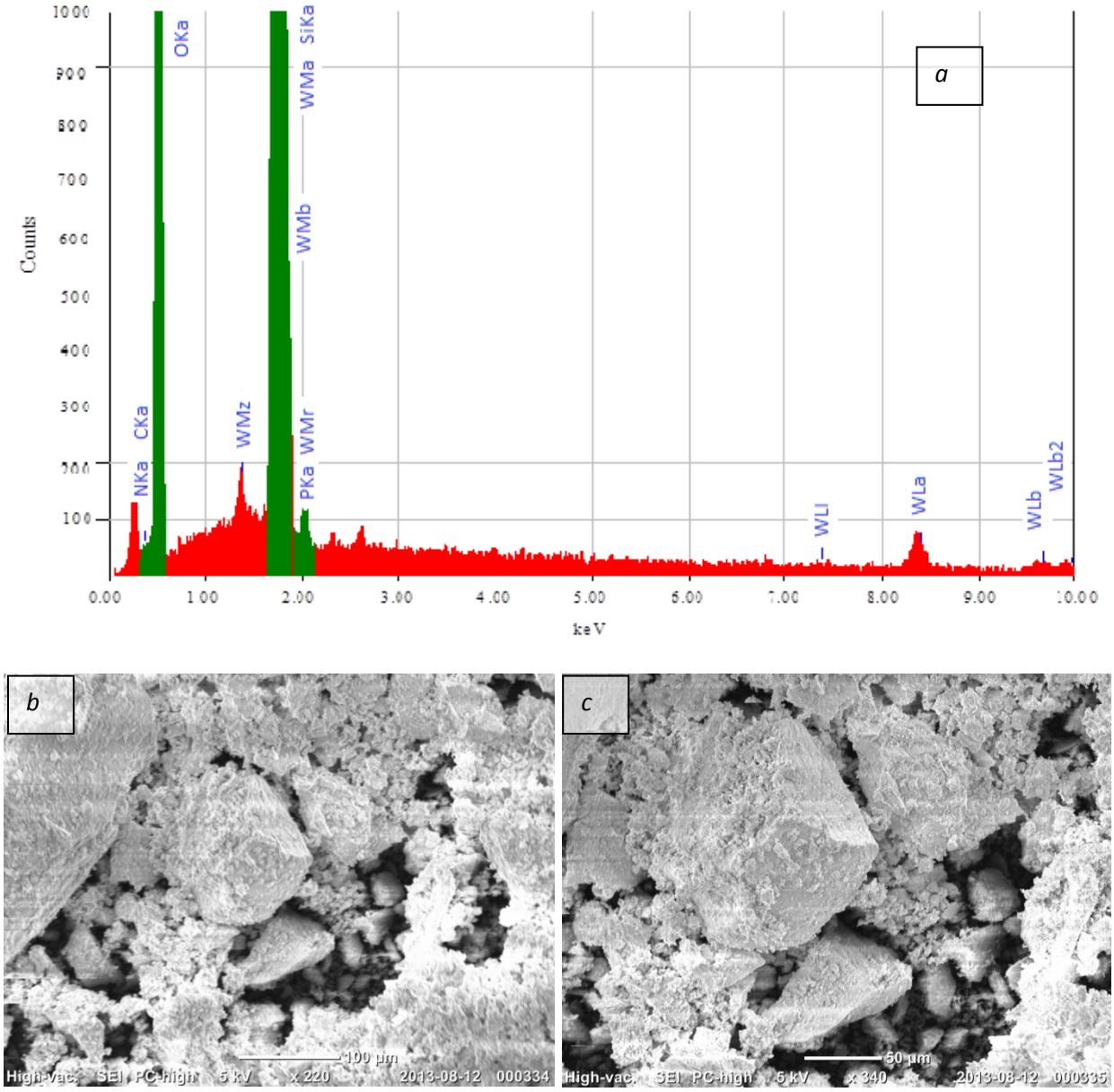

Figure S4. SEM-EDA analysis spectra (a) and images (b,c) for PW- Perlkat

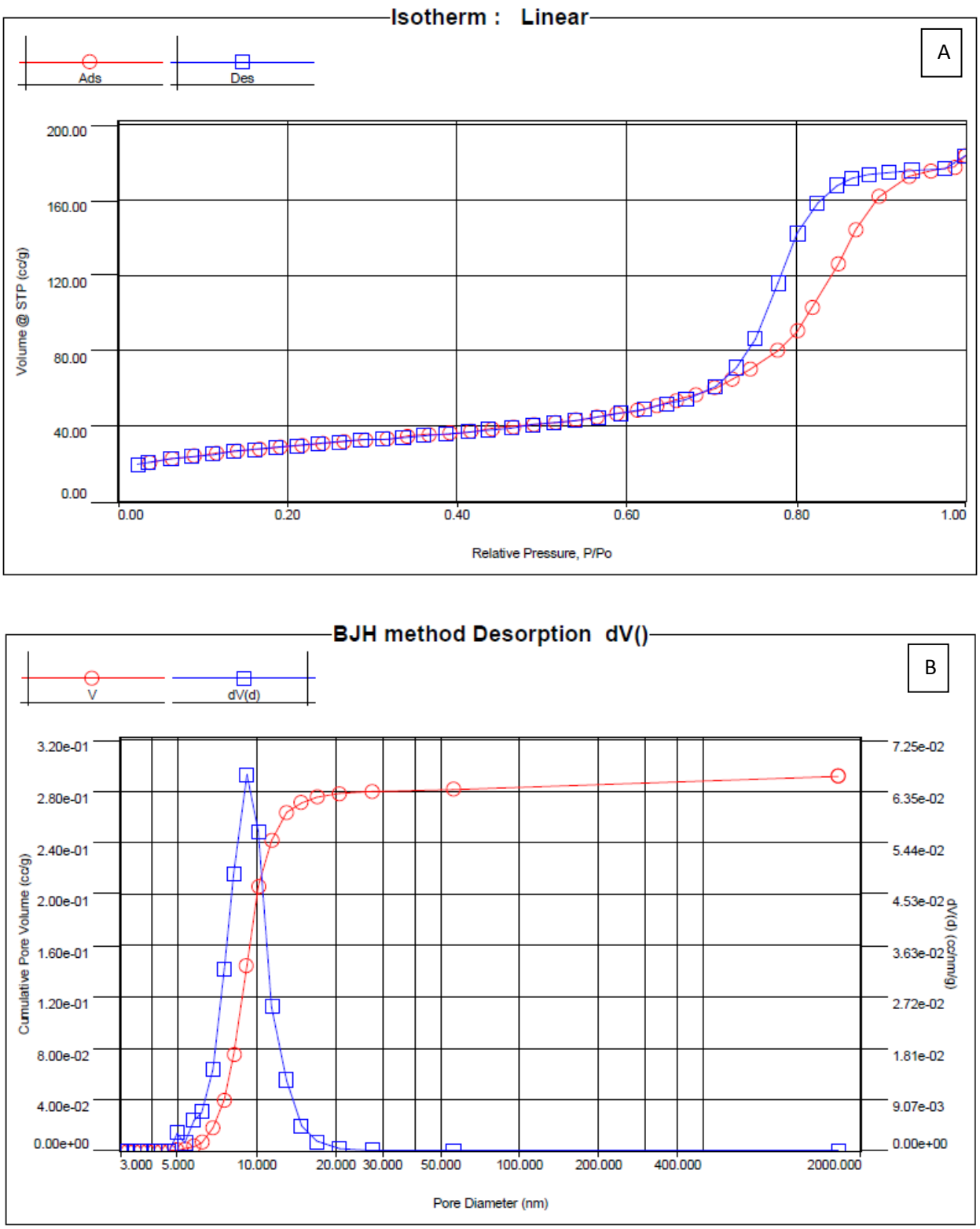

Figure S5. Nitrogen adsorption-desorption isotherms (A) and BJH pore size distribution (B) curve of PMo- Perlkat

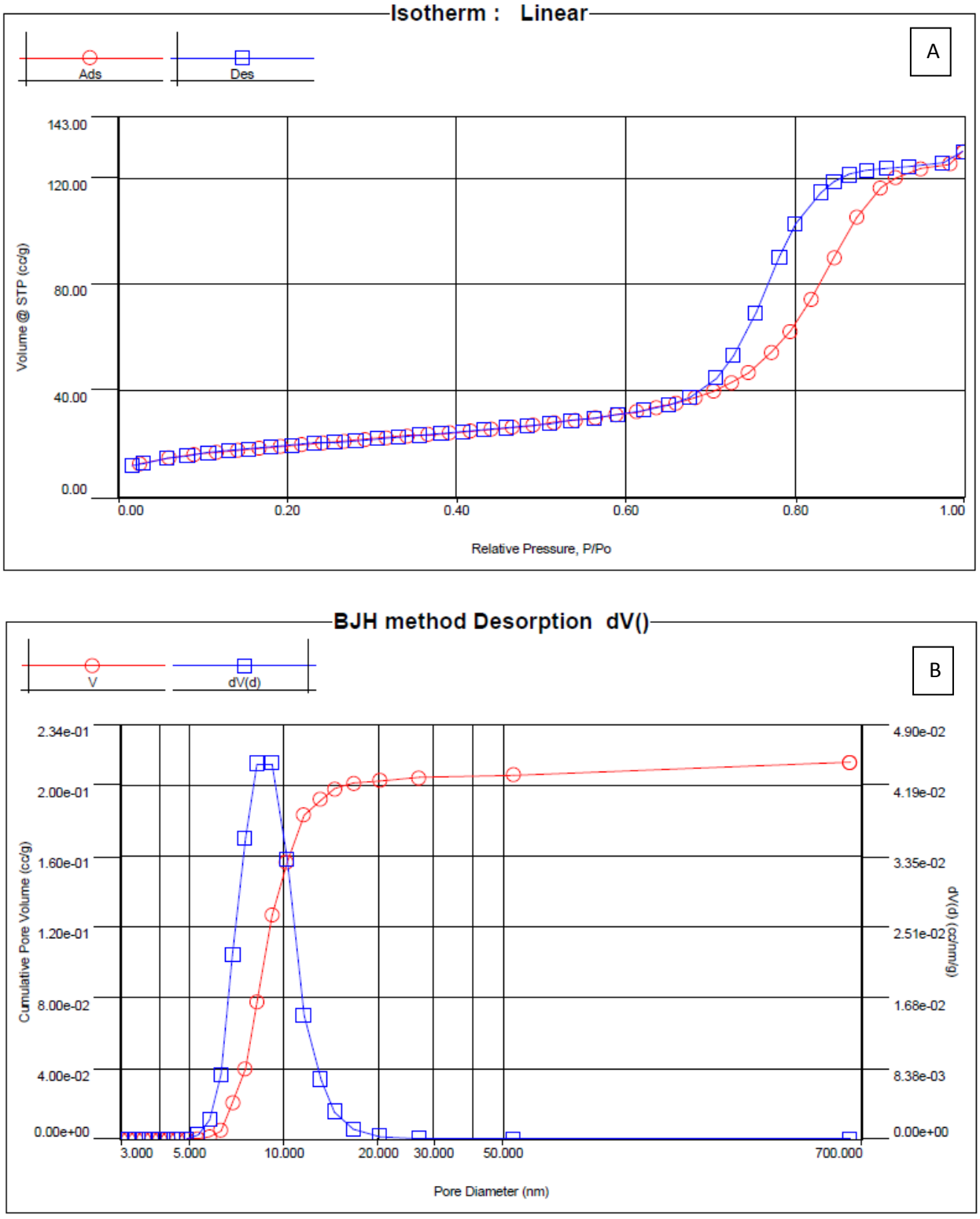

Figure S6. Nitrogen adsorption-desorption isotherms (A) and BJH pore size distribution (B) curve of PW- Perlkat

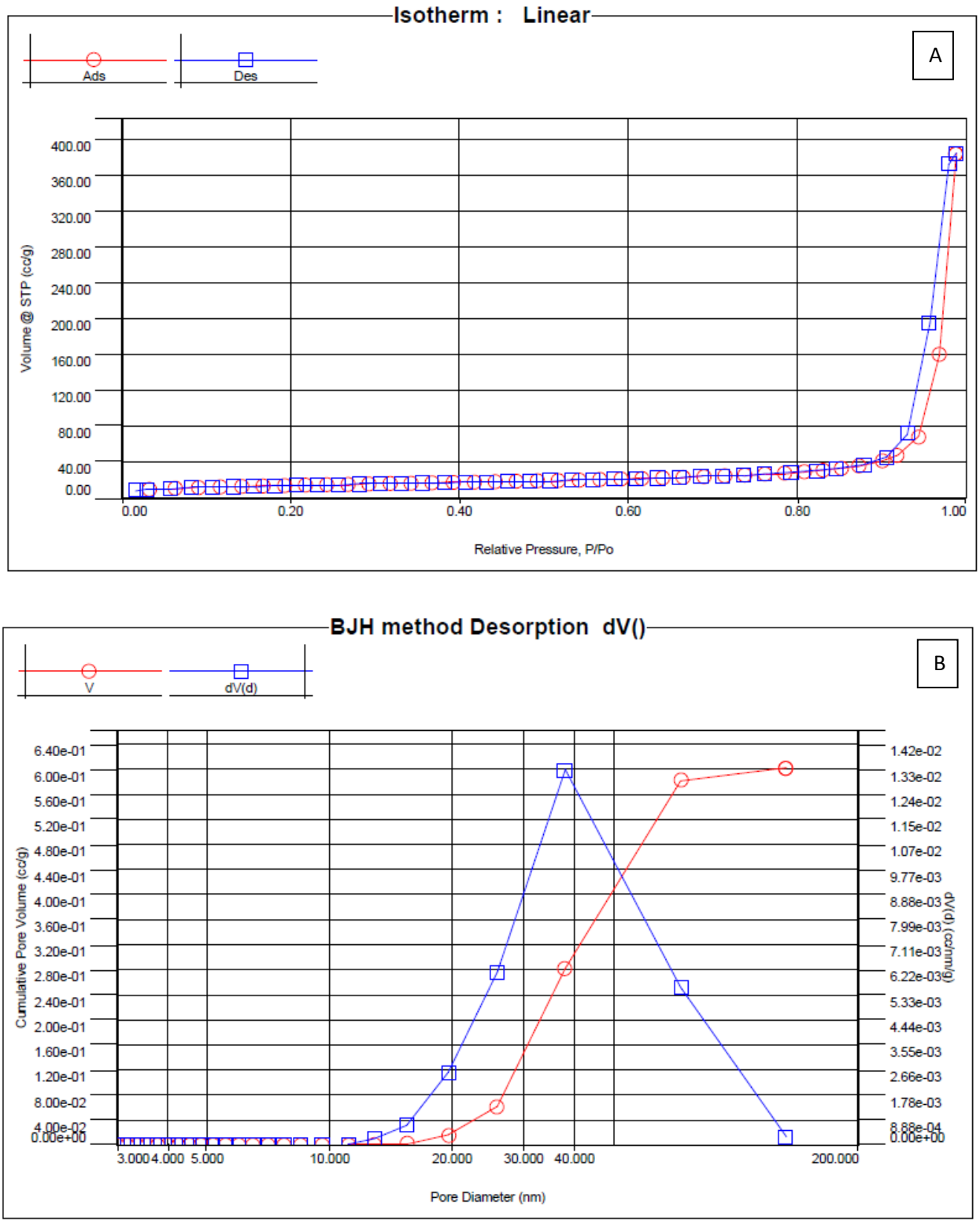

Figure S7. Nitrogen adsorption-desorption isotherms (A) and BJH pore size distribution (B) curve of PMo- Silochrome

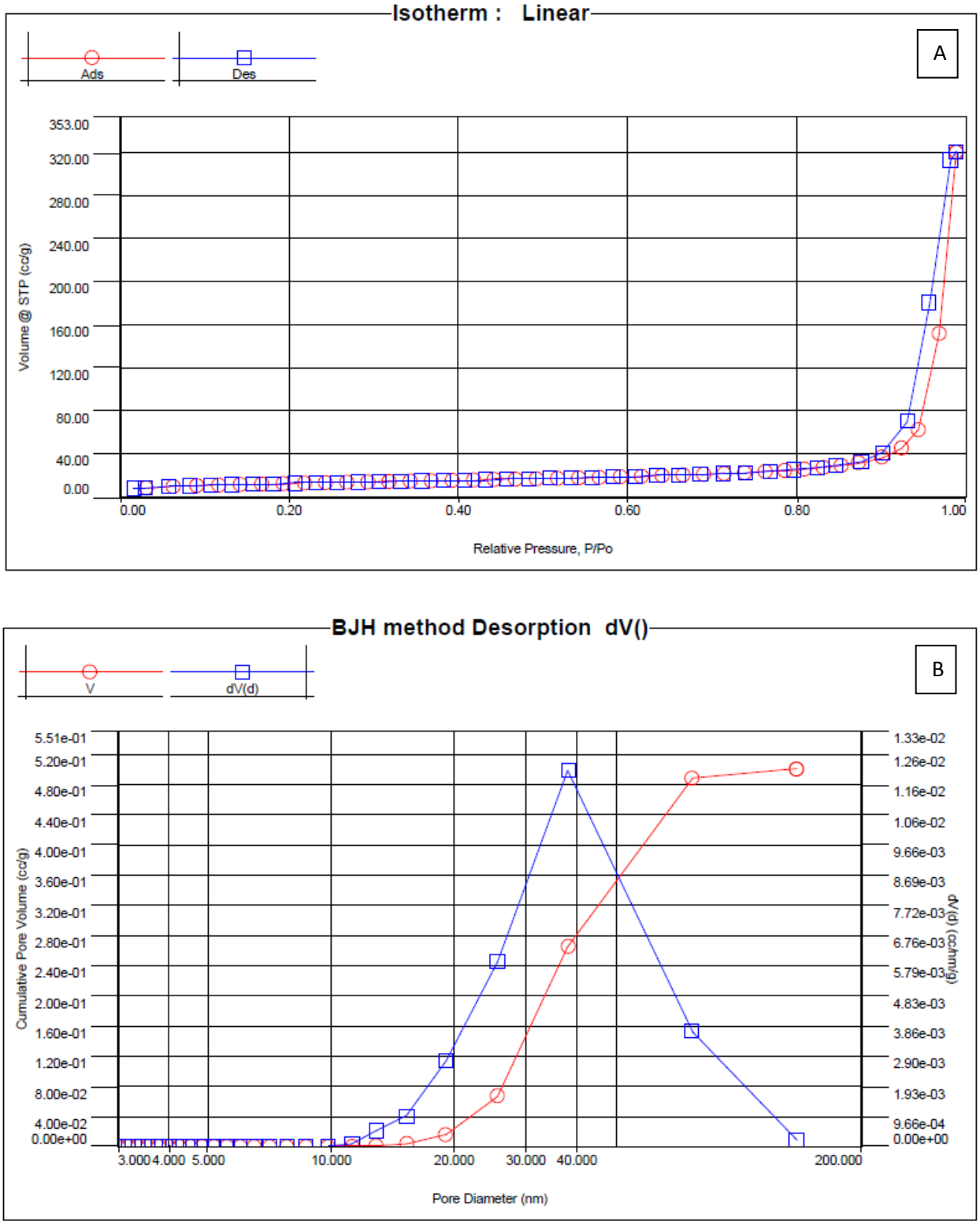

Figure S8. Nitrogen adsorption-desorption isotherms (A) and BJH pore size distribution (B) curve of PW- Silochrome

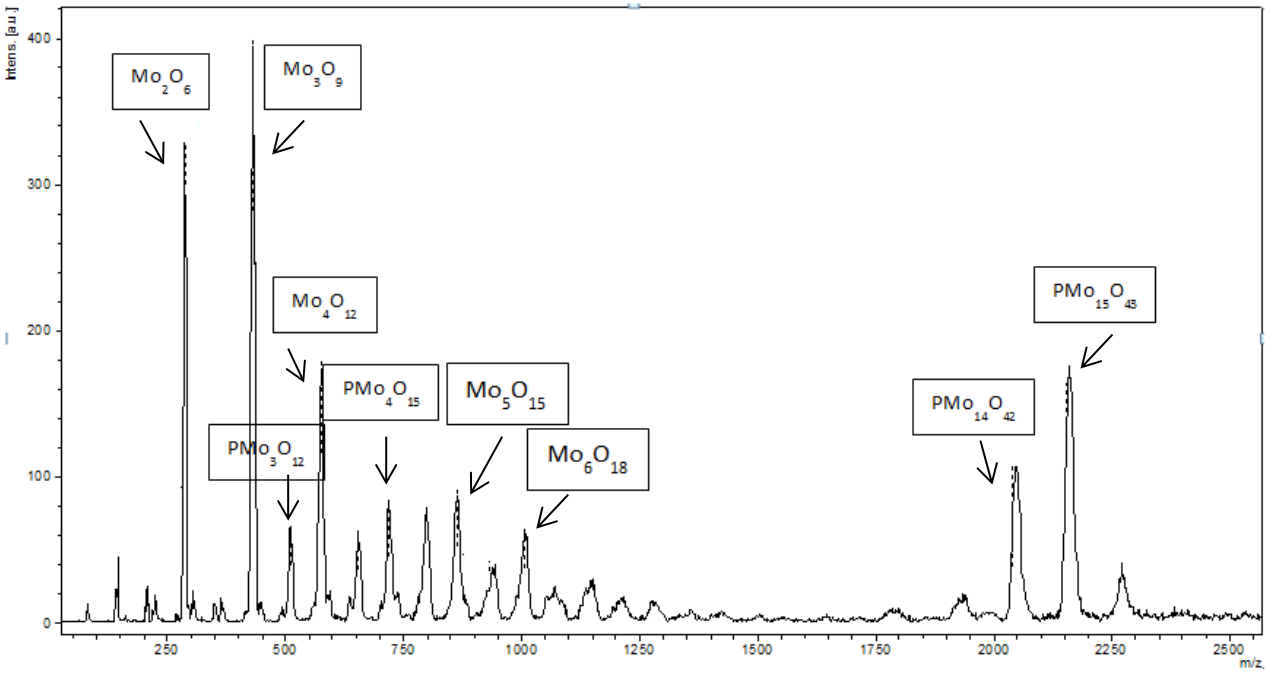

Figure S9. SALDI mass spectra of PMo-Perlkat catalysts recorder in the negative ion direction mode

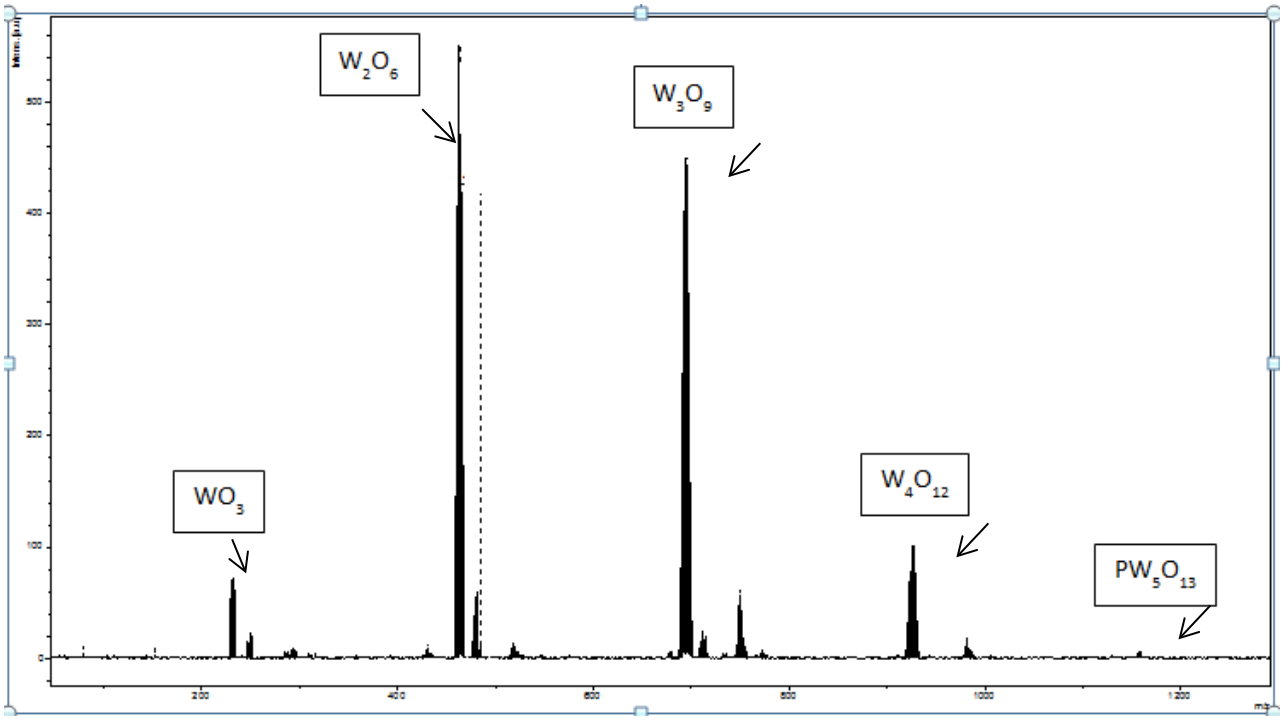

Figure S10. SALDI mass spectra of PW-Perlkat recorder in the negative ion direction mode

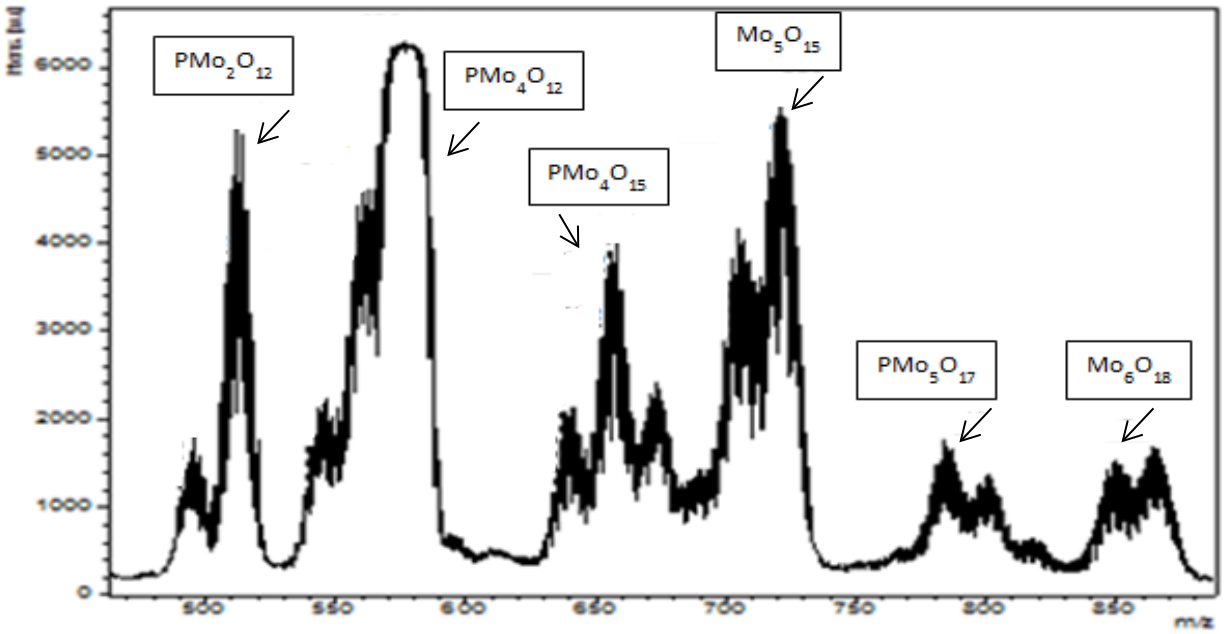

Figure S11. SALDI mass spectra of PMo-silochrome recorder in the negative ion direction mode

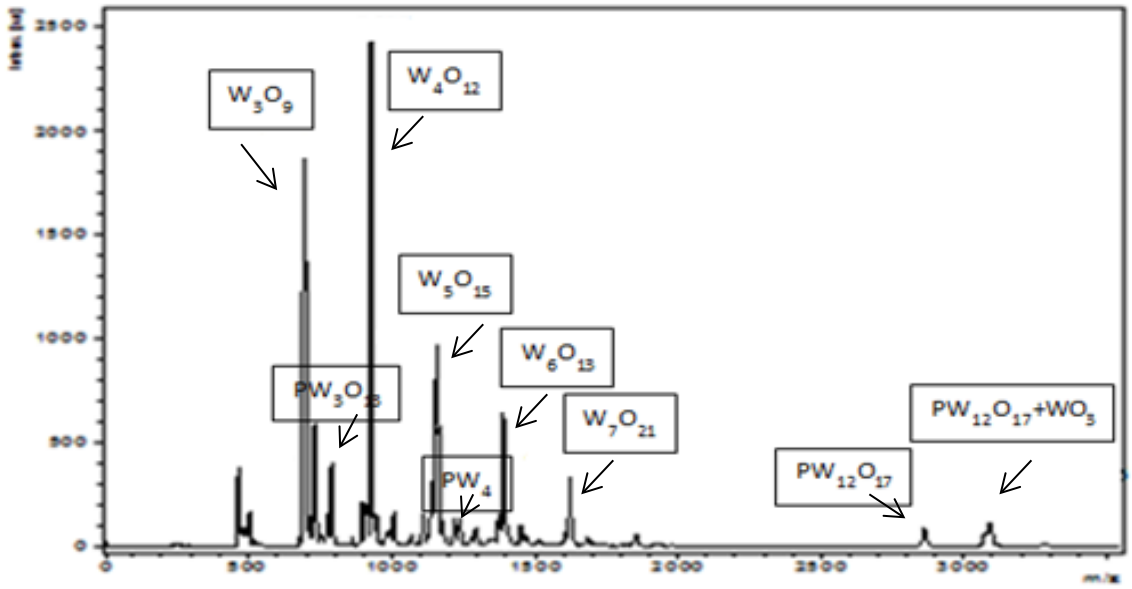

Figure S12. SALDI mass spectra of PW-silochrome recorder in the negative ion direction mode

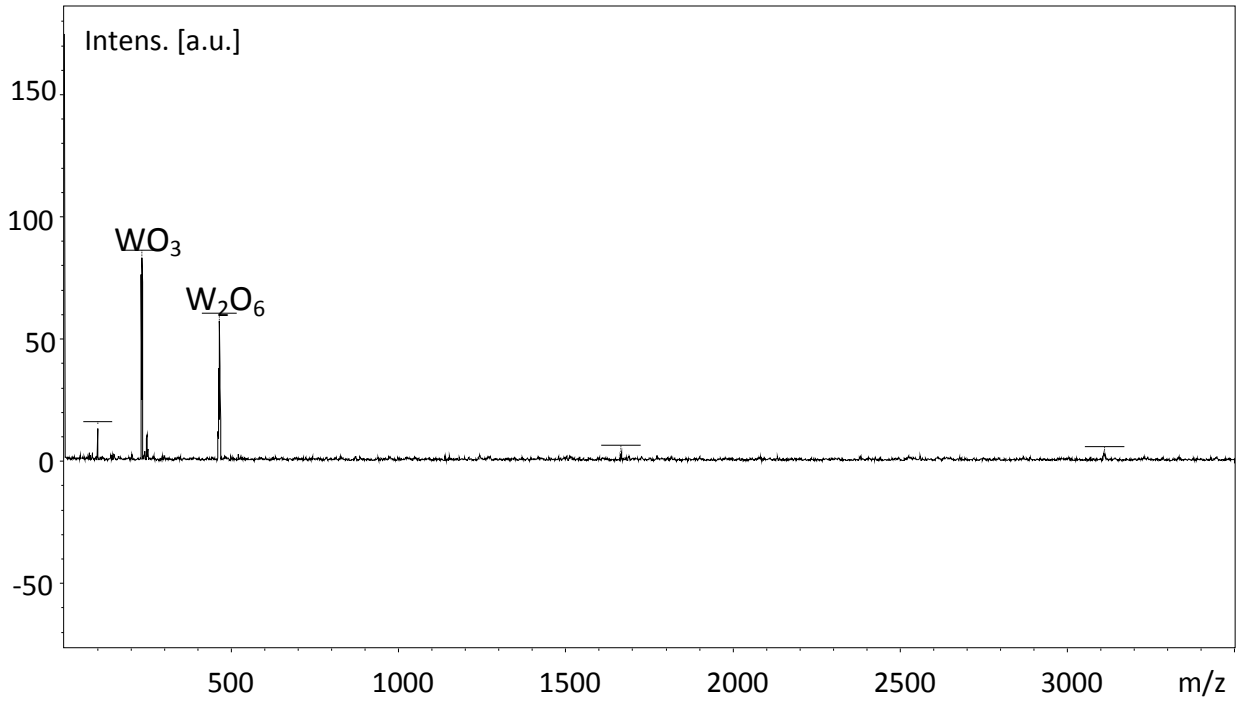

Figure S13. SALDI mass spectra of PW-acid on Perlkat recorder in the negative ion direction mode

Table S1. Sulfur removal from the diesel fuel, the comparison with literature results

Substrate	Initial sulfur content,ppm	Final sulfur content,ppm	Reference
Diesel fuel	***1080***	***7***	*this article*
	559,7	4,8	1
	746	181,2	2
	659,7	8,62	3
	2300	391	4
	500	6	5

References

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2. Safa, M., Mokhtarani, B., Mortaheb, H. R., Tabar Heidar, K., Sharifi, A., & Mirzaei, M (2017) Oxidative Desulfurization of Diesel Fuel Using a Brønsted Acidic Ionic Liquid Supported on Silica Gel. Energy & Fuels 31:10196–10205.
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