

Supporting Information

Oxidation Route Dependent Proton Conductivities of Oxidized Fullerenes

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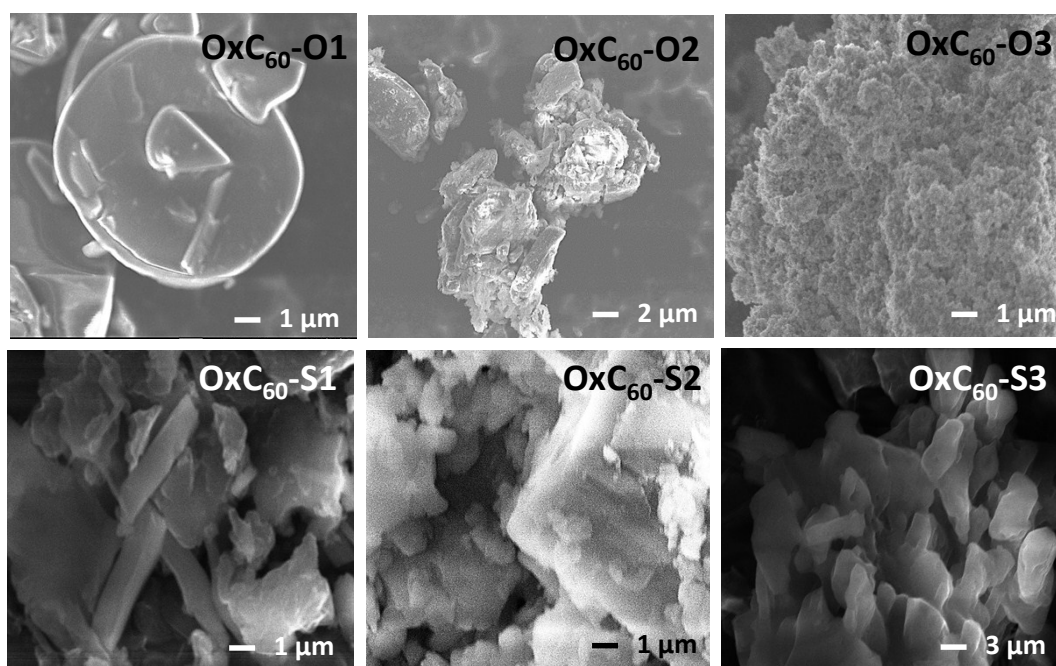


Figure S1. SEM images of fullereneols

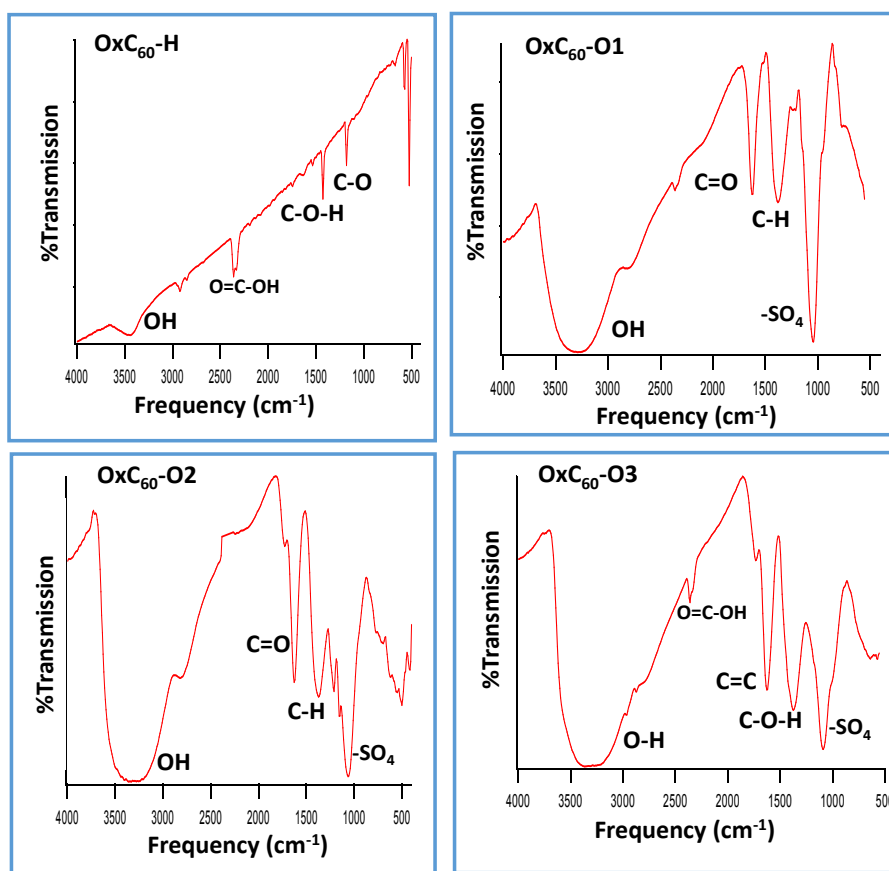


Figure S2. FT-IR spectra of fullereneols prepared by Hummers method and using oleum

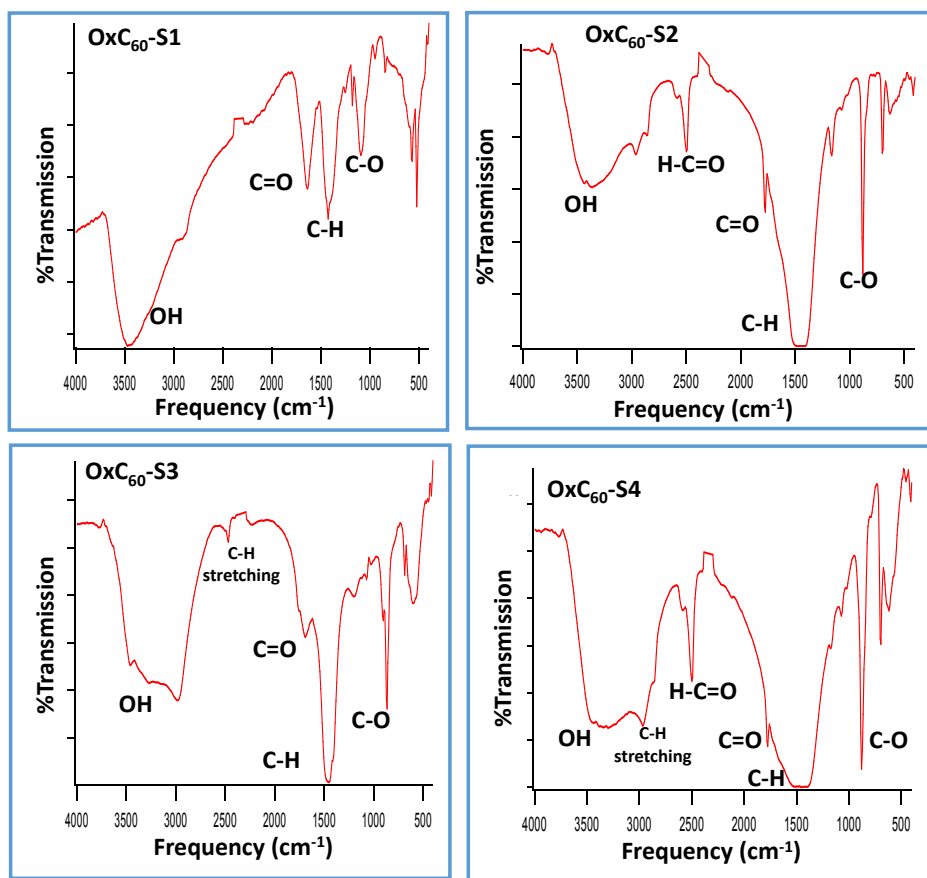


Figure S3. FT-IR spectra of fullerlenols prepared by NaOH

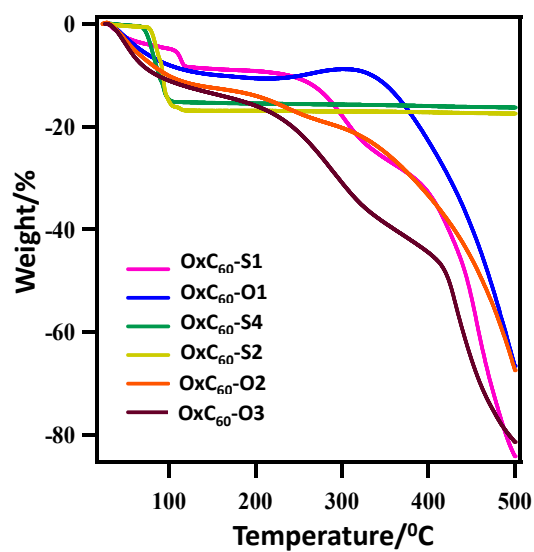


Figure S4. TGA profile of fullerlenols

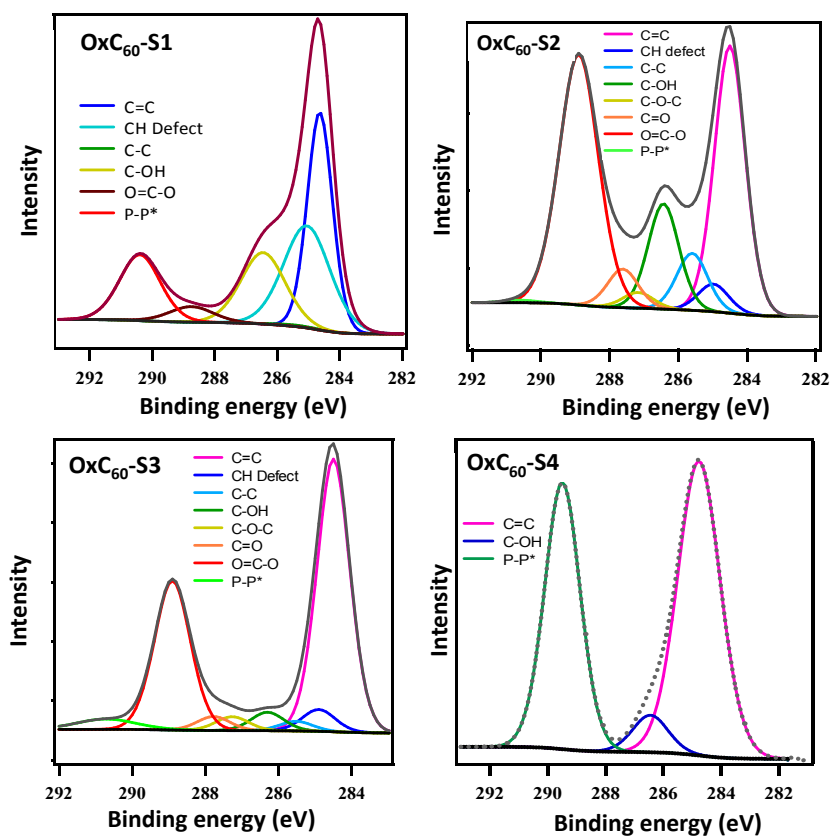


Figure S5. XPS spectra of fullereneols prepared by NaOH

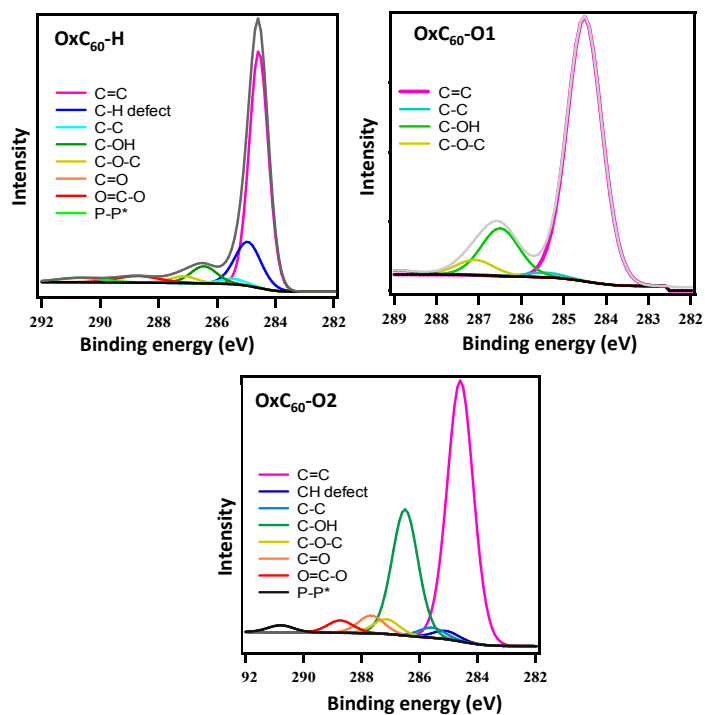


Figure S6. XPS spectra of fullereneols prepared by Hummers' method and using oleum

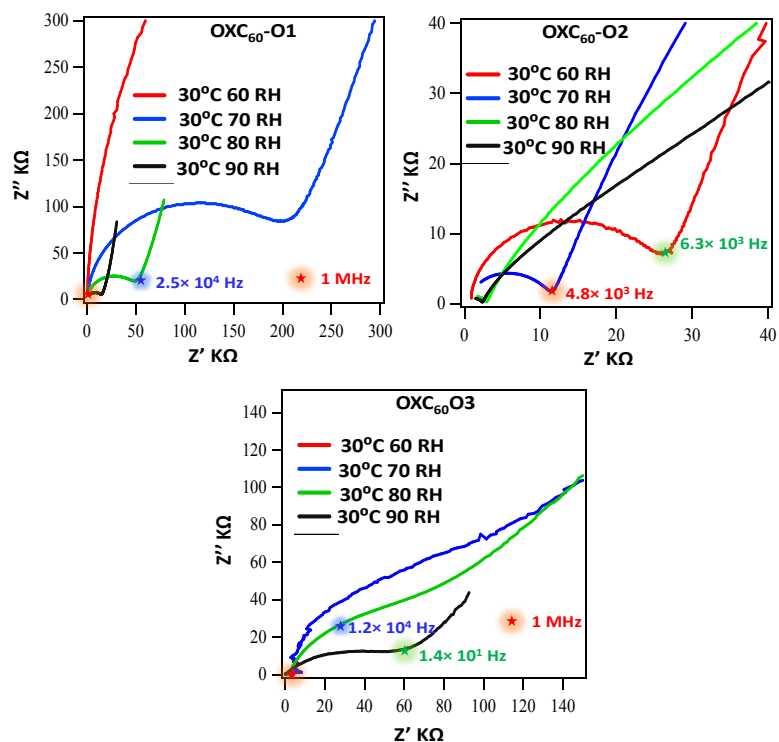


Figure S7. Nyquist Plots at the frequency range of 1Hz to 10^6 Hz for fullerenols prepared by oleum

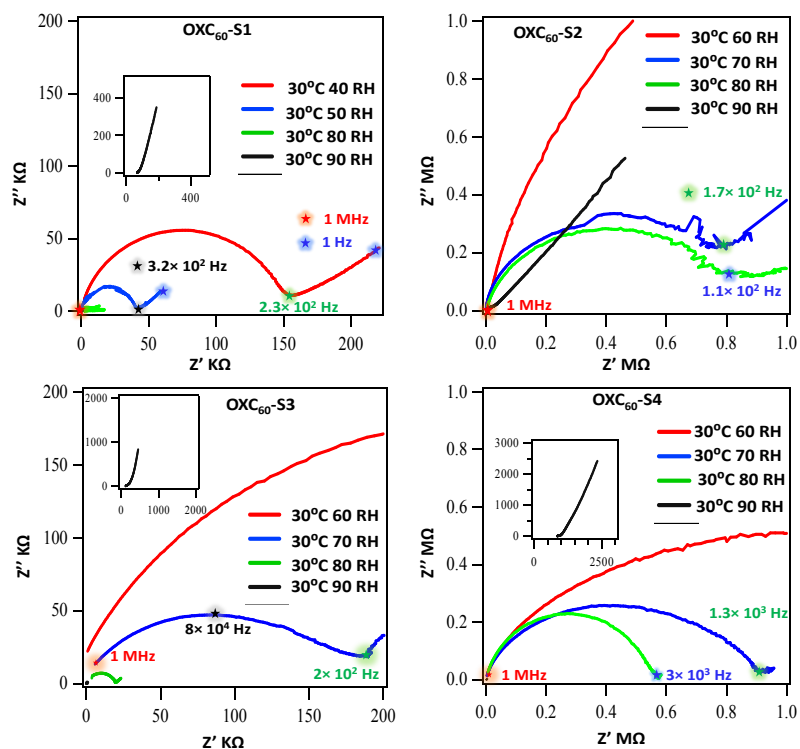


Figure S8. Nyquist Plots at the frequency range of 1Hz to 10^6 Hz for fullerenols prepared by caustic soda

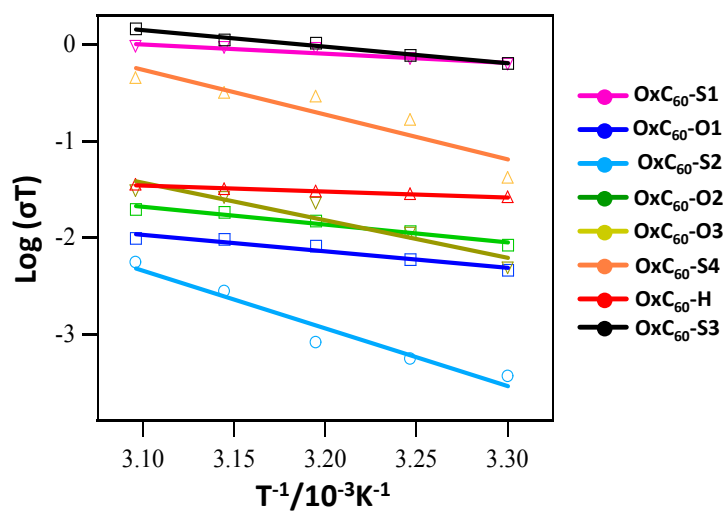


Figure S9. Arrhenius plot of all prepared fullerenols.

Table S1. CHN elemental analysis of all prepared fullerenols

Ox-C ₆₀	% C	% H	% N
Ox-C ₆₀ -O1	70.57	2.23	0
Ox-C ₆₀ -O2	54.86	2.37	0
Ox-C ₆₀ -O3	51.63	3.65	0.49
Ox-C ₆₀ -S1	77.63	2.92	0
Ox-C ₆₀ -S2	11.01	4.92	0
Ox-C ₆₀ -S3	4.48	0.27	0
Ox-C ₆₀ -S4	8.24	0.46	0

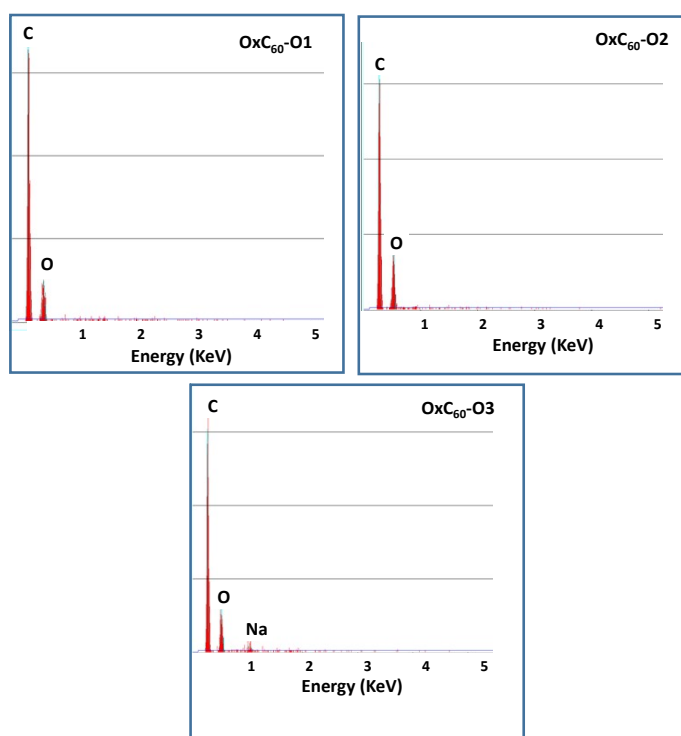


Figure S10 EDX spectra of fullereneol prepared by oleum

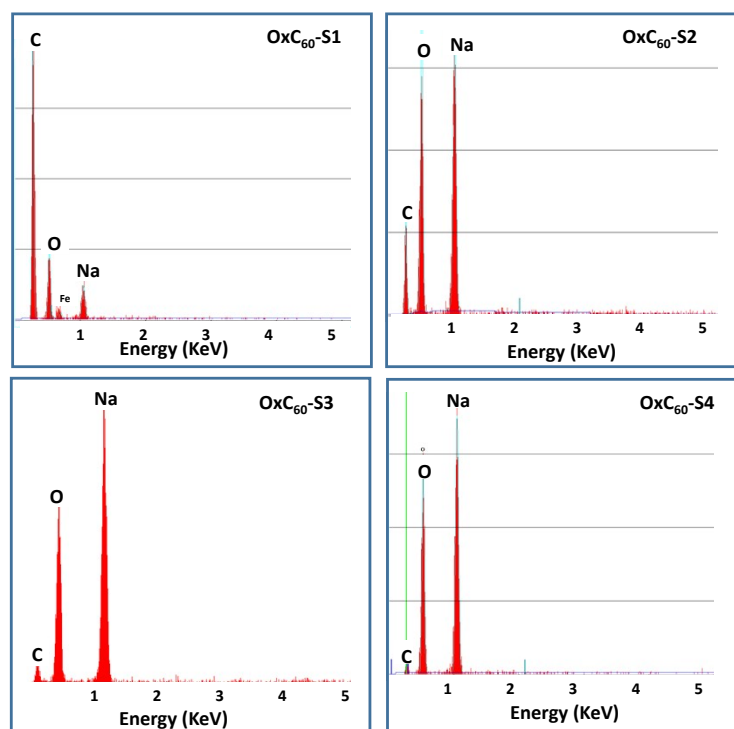


Figure S11 EDX spectra of fullereneol prepared by caustic soda

