Sulfonated Pentablock Copolymer Membranes and Graphene Oxide Addition for Efficient Removal of Metal Ions from Water

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Supporting Information

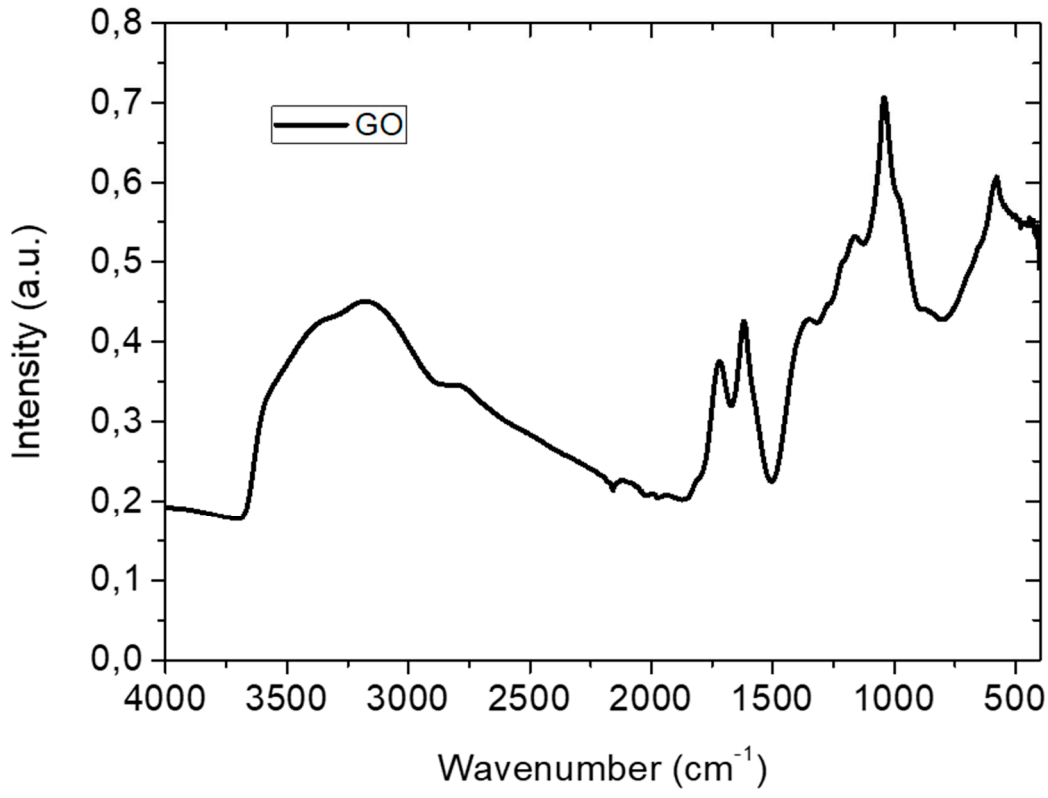

Figure 1. *FT-IR spectrum of GO.*

Table 1. Amount of each metals in mg/L at different salts concentrations i.e. 500 mg/L (a), 1000 mg/L (b), 2000 mg/L (c).

Salt	Metal (%)	Metal Concentration (mg/L)[(a)]	Metal Concentration (mg/L)[(b)]	Metal Concentration (mg/L)[(c)]
$CoCl_2$	25	118.3	261.9	502
$Ni(NO_3)_2$	20	102	221.2	435.8
$Cr_2(SO_4)_3$	14.5	75	131.6	257.9
$Pb(NO_3)_2$	62.5	308.5	698.5	1040

Table 2. Values* of ionic radii, electronegativity and atomic mass for the investigated cations.

	Ionic radii (amstrong) [ref.]	Electronegativity (Pauling)	Atomic Mass (u.a.)
Cr^{3+}	0.615	1.66	51.9961
Co^{2+}	0.58-0.9	1.88	58.9332
Ni^{2+}	0.49-0.69	1.91	58.6934
Pb^{2+}	0.98-1.48	2.33	207.2

* *"Revised Effective Ionic Radii and Systematic Studies of Interatomic Distances in Halides and Chalcogenides"* By **R. D. Shannon**. Central Research and Development Department, Experimental Station, E. I. Du Pont de Nemours and Company, Wilmington, Delaware 19898, U.S.A. Published in Acta Crystallographica. (1976). A32, Pages 751-767.