

Aminated graphite oxides and their composites with copper-based metal–organic framework: in search for efficient media of CO₂ sequestration

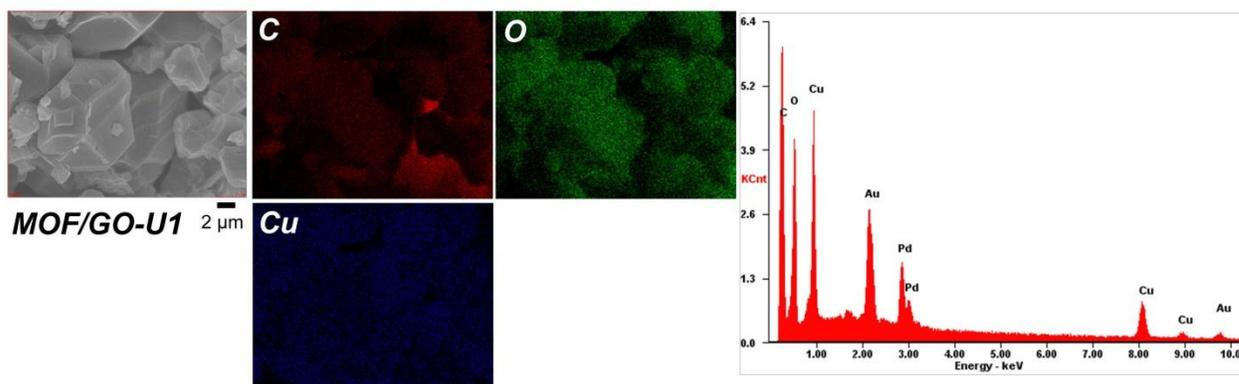
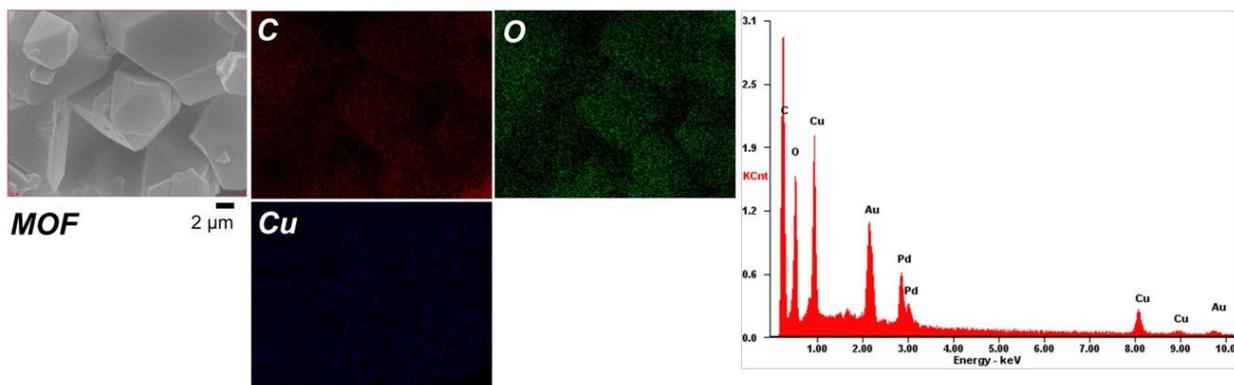
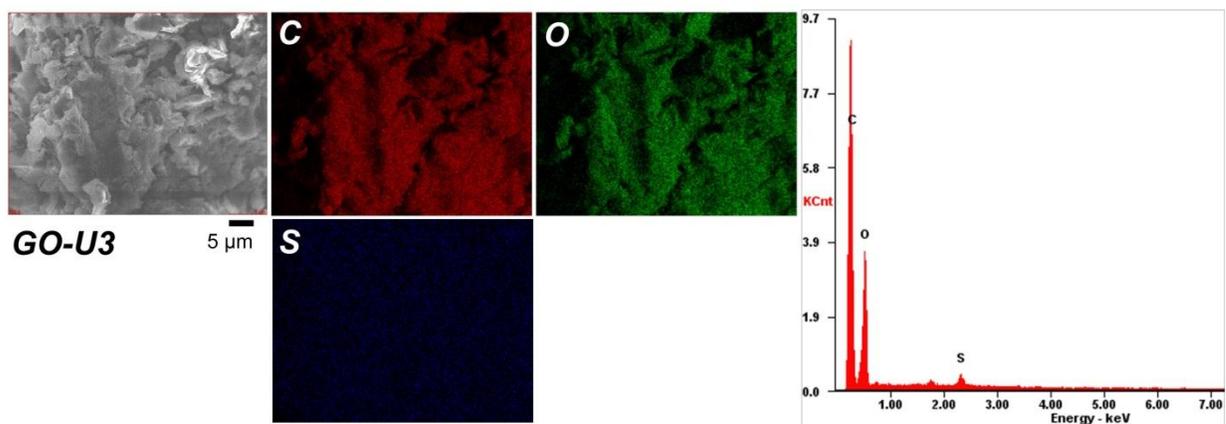
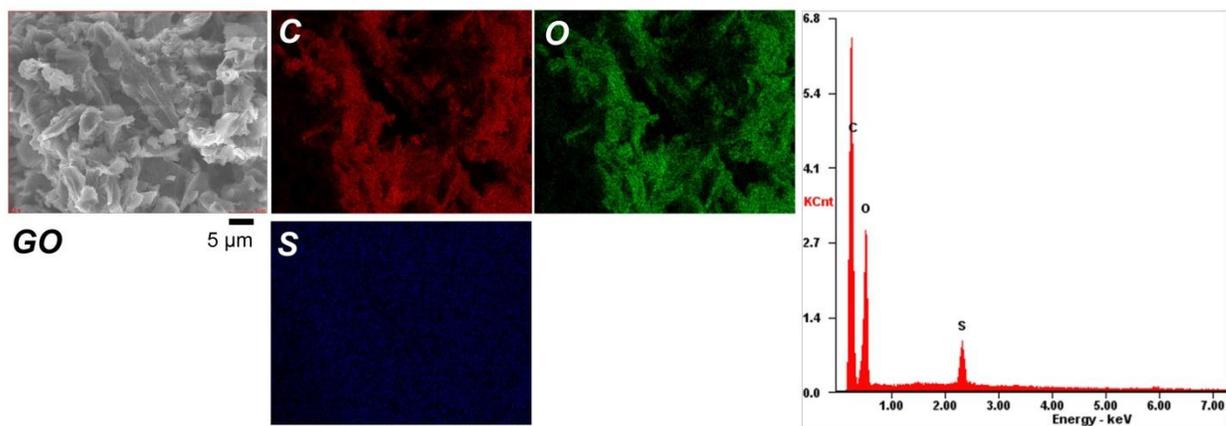
Yunxia Zhao^{1,2}, Mykola Seredych¹, Qin Zhong², and Teresa J. Bandosz¹

¹The City College of New York

160 Convent Avenue, New York, NY 10031 (USA)

²School of Chemical Engineering

Nanjing University of Science and Technology, Nanjing, 210094 (PR China)



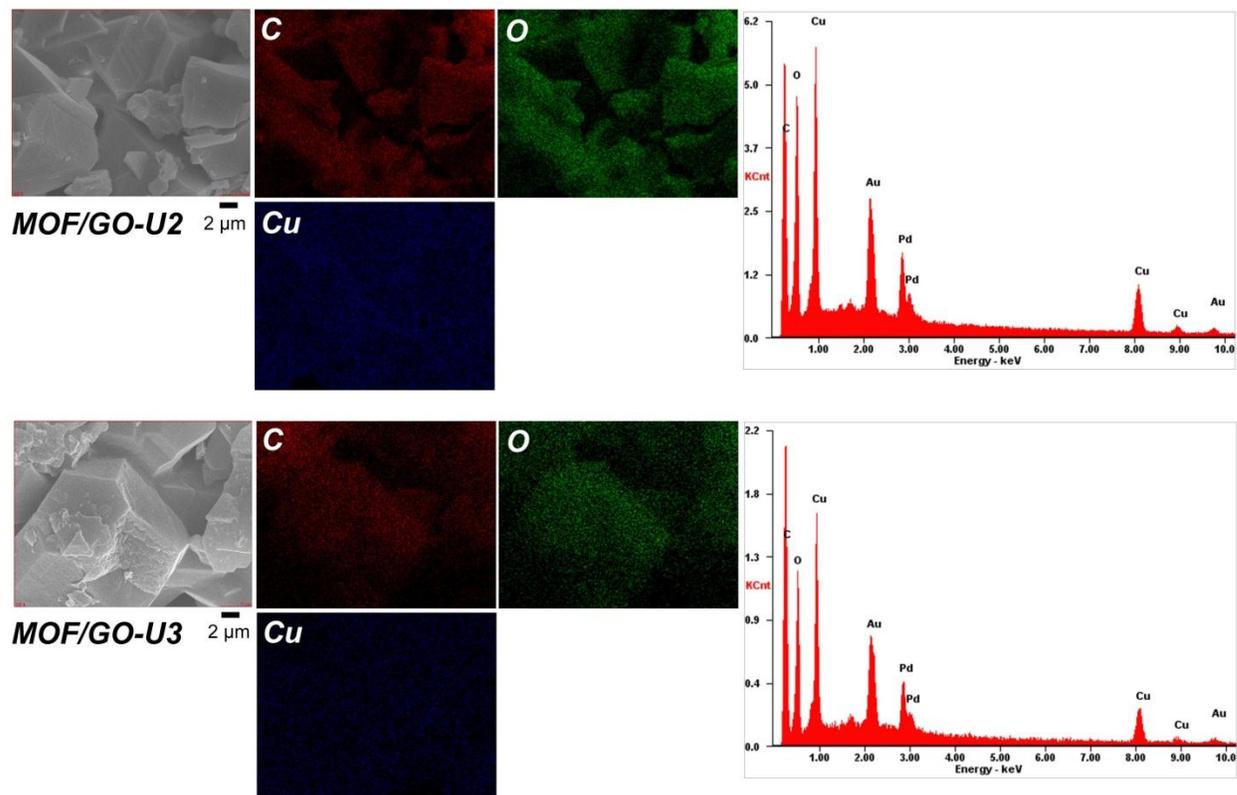


Fig. S1. EDX maps of elements for GO, GO-U3, MOF and MOF/GO-U. Only maps for the particular areas are presented. The content of copper was evaluated based on the maps of elements collected from four spots.

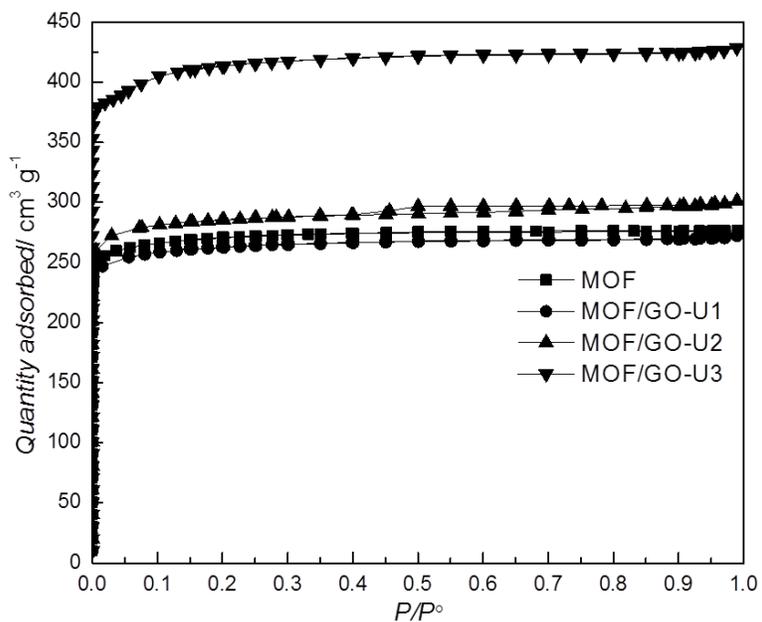


Fig. S2. Nitrogen adsorption isotherms for parent MOF and the composites.

Table S1. Results of C, H and N elemental analysis (in weight %).

Sample	C	H	N	O ^[a]
GO	63.13	1.59	-	35.28
GO-U1	65.20	1.47	0.21	33.33
GO-U2	67.00	1.46	0.41	31.54
GO-U3	65.09	1.59	0.59	33.32

^[a]The content of oxygen is calculated from the difference to 100 %.

Table S2. Parameters of the surface area and porous structure for MOF and MOF/GO-U.

Sample	S_{BET} ($\text{m}^2 \text{g}^{-1}$)	V_t ($\text{cm}^3 \text{g}^{-1}$)	V_{mic} ($\text{cm}^3 \text{g}^{-1}$)	V_{mic}/V_t (%)
MOF	892	0.428	0.379	89
MOF/GO-U1	764	0.370	0.329	89
MOF/GO-U2	936	0.466	0.406	87
MOF/GO-U3	1367	0.663	0.572	86