

Supporting Information

Peter I. Ravikovitch, Bill W. Bogan and Alexander V. Neimark

Nitrogen and Carbon Dioxide Adsorption by Soils

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Number of pages: 4

Number of figures: 3

Number of tables: 1

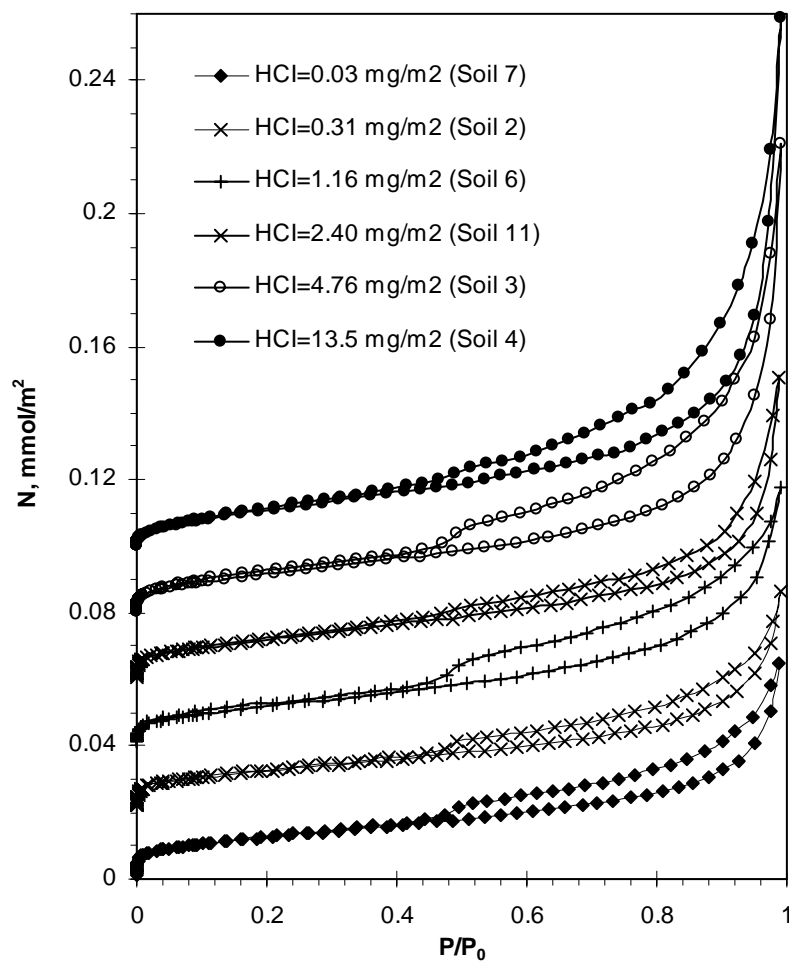


Figure S1. N_2 adsorption/desorption isotherms at 77.4 K reduced per unit of BET surface area. Lines are guides to the eye. The vertical scale is shifted by 0.02, 0.04, 0.06, 0.08 and 0.1 mmol/m^2 for soils 2, 6, 11, 3 and 4, respectively.

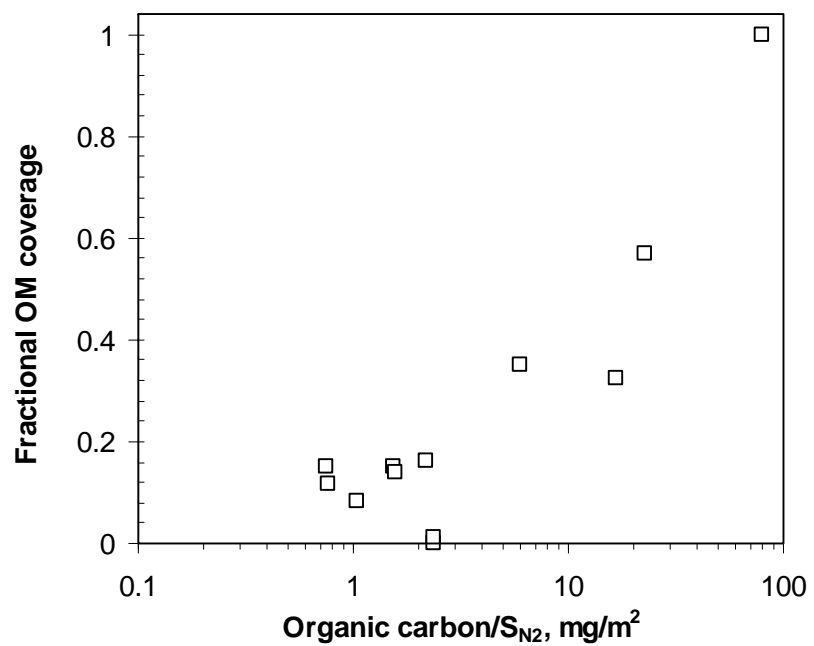


Figure S2. Relationship between the fractional organic matter coverage of soils and the OC content per unit area.

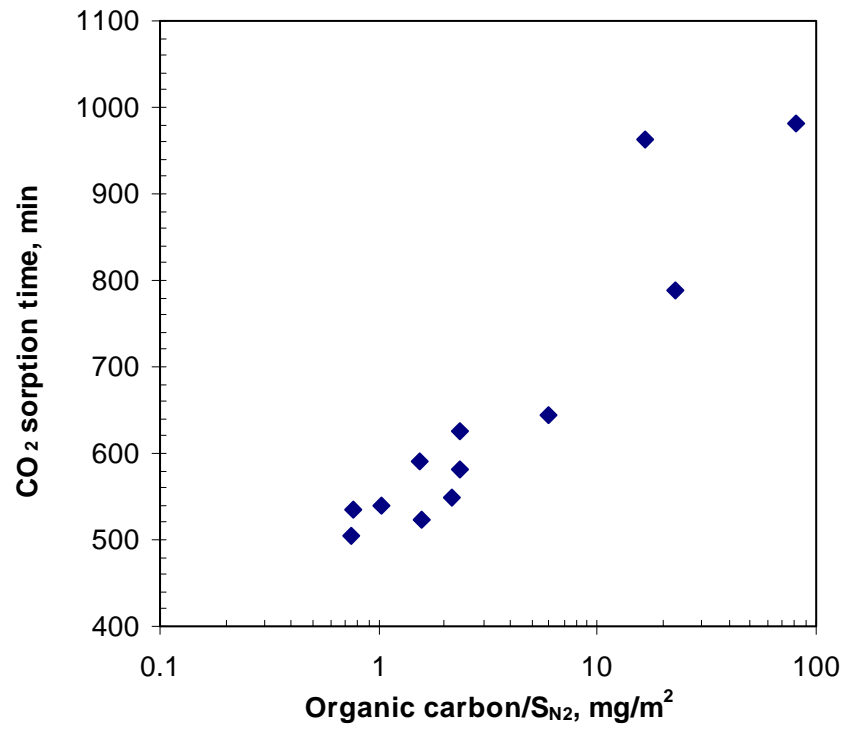


Figure S3. Correlation between the total experimental time it took to reach $p/p_0=0.029$ in CO₂ sorption experiment and the OM coverage of soil particles.

Table S1. Reference N₂ adsorption isotherm at 77.4 K on soil from noncontaminated vegetated area. TOC=24.3%, OC content per unit of BET surface area = 80 mg/m² and HCI=13.5 mg/m².

p/p ₀	μmol/m ²	p/p ₀	μmol/m ²	p/p ₀	μmol/m ²
2.81E-05	0.301	2.10E-02	4.56	0.461	17.6
3.98E-05	0.401	3.13E-02	5.19	0.487	18.2
4.94E-05	0.455	3.66E-02	5.46	0.511	18.9
6.01E-05	0.504	4.16E-02	5.69	0.534	20.3
7.09E-05	0.547	5.13E-02	6.14	0.561	21.3
8.04E-05	0.585	6.12E-02	6.58	0.586	22.2
9.27E-05	0.623	7.14E-02	6.95	0.611	23.1
9.58E-05	0.631	8.14E-02	7.29	0.636	24.0
2.22E-04	0.891	8.66E-02	7.41	0.661	25.0
3.18E-04	1.03	9.13E-02	7.70	0.686	26.0
4.17E-04	1.14	0.101	8.01	0.712	27.1
4.99E-04	1.23	0.111	8.29	0.736	28.1
5.96E-04	1.31	0.136	9.19	0.760	29.6
7.09E-04	1.39	0.161	9.80	0.783	32.3
8.13E-04	1.46	0.187	10.5	0.810	34.5
9.15E-04	1.53	0.211	11.1	0.835	37.0
1.01E-03	1.58	0.236	11.7	0.860	40.1
2.13E-03	2.05	0.261	12.2	0.884	44.2
3.11E-03	2.33	0.286	12.8	0.907	49.7
4.18E-03	2.58	0.310	13.8	0.930	57.6
5.25E-03	2.78	0.336	14.5	0.951	69.1
6.34E-03	2.96	0.362	15.2	0.972	97.5
7.39E-03	3.11	0.386	15.8	0.989	159
8.46E-03	3.26	0.411	16.4		
9.49E-03	3.40	0.436	17.0		