

Interaction of uranium(VI) with lipopolysaccharide

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Supplementary Data

Table S1: Summary of all TRLFS measurement series

pH	c[U] (M)	c[LPS] (g/L)	t ₁	t ₂	Peak maxima (nm)					Comments	
2.53	1.0E-05	0.000	1566(A)		488.9	510.5	533.5	560.1		(A) UO ₂ ²⁺	
2.53	1.0E-05	0.000	1773(A)		488.8	510.4	532.9	559.0	583.8		
4.78	1.0E-05	0.000	835(A)	7997(B)	477.1	500.1	520.6	542.1	572.7	(B) UO ₂ OH ⁺ /	
5.40	1.0E-05	0.000	3609(B)	21561(C)	500.5	516.9	534.8	559.5	586.8	(UO ₂) ₂ (OH) ₂	
5.95	1.0E-05	0.000	6018(B)	28637(C)	501.3	515.2	532.5	560.1	587.9	(C) (UO ₂) ₃ (OH) ₅ ⁺	
7.03	1.0E-05	0.000		29611(C)	503.6	517.1	533.8	557.6	590.5		
2.55	1.0E-05	0.050	n.m.		481.4	497.5	519.0	542.6	567.7	598.4	n.m. lifetime not measured
2.55	1.0E-05	0.075	n.m.		480.9	497.4	518.9	542.7	567.4	592.5	
2.51	1.0E-05	0.100	1635 ^A	8532 ¹	480.7	497.3	518.9	542.8	567.4	595.6	(1) R-O-PO ₃ H-UO ₂ ⁺
2.58	1.0E-05	0.200	1459 ^A	9467 ¹	480.5	497.3	519.1	542.7	567.2	597.2	
2.55	1.0E-05	0.500	1193 ^A	7475 ¹	480.8	497.3	518.7	542.1	566.6	595.6	
2.56	1.0E-05	0.750	1766 ^A	8401 ¹	480.5	497.1	518.8	542.3	566.5	597.0	
2.56	1.0E-05	1.000	1890 ^A	8120 ¹	480.3	497.2	518.8	542.5	567.0	595.4	
3.35	1.0E-05	0.100	1411 ^A	7868 ¹	480.8	497.8	519.1	542.8	568.4	596.5	
3.21	1.0E-05	1.000	1728 ^A	7304 ¹	484.2	498.6	519.6	543.2	568.0	595.5	
3.35	5.0E-05	1.000	1308 ^A	7928 ¹	481.9	498.3	519.8	543.3	568.2	596.3	

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3.30	1.0E-04	1.000	n.m.		481.6	498.2	519.6	543.1	567.6	596.7	
3.95	1.0E-05	0.025	n.m.		486.0	499.4	520.5	544.6	568.7	598.7	
4.01	1.0E-05	0.050	n.m.		481.1	498.7	520.1	543.3	567.1	598.3	
4.02	1.0E-05	0.075	n.m.		482.4	498.9	520.4	543.8	568.0	595.4	
4.03	1.0E-05	0.100	1039 ²	13210 ³	483.0	499.7	520.6	543.8	567.8	595.9	(2) R–O–PO ₃ –UO ₂
4.04	1.0E-05	0.200	932 ²	12058 ³	483.2	499.5	520.5	543.8	567.7	596.8	(3) (R–O–PO ₃) ₂ –UO ₂ ²⁻
4.02	1.0E-05	0.500	680 ²	11866 ³	484.3	499.6	520.6	543.9	567.2	598.4	
4.05	1.0E-05	0.750	1066 ²	10839 ³	483.2	499.4	520.6	543.8	567.7	595.6	
4.04	1.0E-05	1.000	771 ²	11298 ³	483.4	499.5	520.6	543.9	568.1	596.0	
6.94	1.0E-05	0.025	n.m.			503.7	522.9	543.5	569.5		U-Hydroxide
6.96	1.0E-05	0.050	1426 ²	12200 ³		501.9	521.8	542.3	569.7		U-Hydroxide
6.94	1.0E-05	0.075	1810 ²	14267 ³	483.5	499.6	520.4	543.1	566.5	597.8	
7.00	1.0E-05	0.100	1104 ²	12266 ³	482.5	499.0	520.5	544.0	568.7	597.3	
6.96	1.0E-05	0.200	n.m.		483.2	499.5	520.9	544.4	569.1	595.4	
7.05	1.0E-05	0.500	n.m.		483.9	499.9	521.2	544.5	569.0	597.3	
6.95	1.0E-05	0.750	1349 ²	13532 ³	483.7	500.0	521.3	544.7	569.6	599.5	
7.02	1.0E-05	1.000	871 ²	14248 ³	483.7	500.0	521.3	544.7	569.4	597.1	
7.00	1.0E-05	0.100	293	9218 ³	483.9	499.5	520.6	544.1	568.2	597.0	
7.01	1.0E-05	1.000	312	21651 ³	483.9	499.7	520.7	544.2	568.4	595.7	
7.00	5.0E-05	1.000	1198 ²	16232 ³	483.5	499.6	520.7	544.0	568.0	594.3	
6.97	1.0E-04	1.000	1505 ²	22462 ³	483.2	499.5	520.7	543.8	567.1	594.9	
9.01	1.0E-05	1.000	4720	29436	482.6	499.4	520.7	542.6	561.6	599.6	U-Hydroxide
8.65	5.0E-05	1.000	7513	37361	482.8	499.4	520.6	543.3	564.5	592.5	U-Hydroxide
8.78	1.0E-04	1.000	8116	42873	480.0	501.1	521.5	543.2	565.0	592.3	U-Hydroxide
2.43	1.0E-05	0.025	1532			496.6	518.2	540.9	567.6		
2.40	1.0E-05	0.050	1237		482.6	497.5	518.8	541.9	568.0		
2.44	1.0E-05	0.075	1887	9066 ¹	482.0	497.6	519.2	542.3	568.6		
2.47	1.0E-05	0.100	1620	9020 ¹	480.8	497.3	519.0	542.5	568.7		
2.53	1.0E-05	0.250	1722	8100 ¹	481.6	497.5	519.1	542.3	568.6		
2.42	1.0E-05	0.500	1926	8132 ¹	481.4	497.4	518.9	542.1	569.2		
2.40	1.0E-05	1.000	1800	8844 ¹	481.3	497.4	519.0	542.3	569.0		
4.05	1.0E-05	0.025	1007 ²		479.9	498.3	520.4	542.4	567.2	602.3	
4.00	1.0E-05	0.050	567 ²	12574 ³	481.4	497.6	519.1	542.0	566.6	596.2	
4.10	1.0E-05	0.075	1281 ²	11956 ³	483.9	498.1	519.2	542.5	568.0		
4.03	1.0E-05	0.100	1309 ²	14240 ³	482.0	497.7	518.8	542.1	567.6	596.6	
4.09	1.0E-05	0.250	852 ²	11254 ³	482.5	498.4	519.3	542.5	568.1	596.4	
4.05	1.0E-05	0.500	1236 ²	12966 ³	483.1	498.7	520.0	542.9	567.4	596.4	

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4.05	1.0E-05	1.000	1284 ²	12904 ³	483.3	498.8	519.8	543.1	568.2	596.0	
6.05	1.0E-05	0.075	2517 ²	15354 ³	483.5	499.5	520.3	543.1	566.2		
6.12	1.0E-05	0.100	1503 ²	14358 ³	482.3	498.4	519.7	542.5	567.2	597.1	
6.03	1.0E-05	0.250	1062 ²	15168 ³	483.1	498.9	519.8	542.7	567.9	596.8	
6.12	1.0E-05	0.500	792 ²	14986 ³	483.5	498.8	519.7	542.7	567.9	596.8	
6.09	1.0E-05	1.000	1029 ²	13400 ³	483.6	499.0	519.7	542.8	568.0	595.7	
2.40	1.0E-05	1.000	1794 ^A	7835 ¹	481.3	497.4	519.0	542.3	569.0		
3.55	1.0E-05	1.000	852 ²	11022 ³	482.1	498.7	519.6	542.5	567.8	601.5	
4.03	1.0E-05	1.000	1238 ²	10904 ³	483.3	498.8	519.8	543.1	568.2	596.0	
6.05	1.0E-05	1.000	1029 ²	13400 ³	483.6	499.0	519.7	542.8	568.0	595.7	
6.55	1.0E-05	1.000	1206 ²	15066 ³	483.4	499.2	519.8	542.5	568.1	599.0	
7.01	1.0E-05	1.000	1266 ²	15258 ³	484.2	499.6	520.2	543.0	568.3	599.2	
8.00	1.0E-05	1.000	912 ²	14296 ³	478.1	498.9	520.7	542.8	571.0		
2.44	1.0E-05	0.075	1887 ^A	8066 ¹	482.0	497.6	519.2	542.3	568.6		
3.13	1.0E-05	0.075	1002 ^A	8250 ¹	483.3	498.2	519.1	542.7	568.7		
4.10	1.0E-05	0.075	1281 ²	12956 ³	483.9	498.1	519.2	542.5	568.0		
4.74	1.0E-05	0.075	1263 ²	12524 ³	481.1	498.7	520.2	541.8	569.9		
5.22	1.0E-05	0.075	1035 ²	15038 ³	484.2	498.6	519.3	542.6	568.0		
6.05	1.0E-05	0.075	2517 ²	15354 ³	483.5	499.5	520.3	543.1	566.2		
7.37	1.0E-05	0.075	4698	29636	484.2	500.2	521.2	543.9	567.8	597.4	U-Hydroxide