The First Organically Templated Tetravalent Uranium Phosphates with Dimer-Structured Topologies

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Table S1.Fluorine tests, ICP-AES and EA analyses

	1	**2**	**3**	**4**
%U found (calcd.)[a]	34.43 (34.58)	44.15 (44.47)	48.05 (48.17)	51.12 (51.45)
%P found (calcd.)[a]	4.51 (4.49)	5.64 (5.78)	9.21 (9.40)	9.94 (10.04)
%F found (calcd.)[b]	18.95 (19.32)	17.46(17.75)	7.32(7.69)	5.69 (6.16)
%C found (calcd.)	20.67(20.94)	8.86(8.97)	7.18(7.29)	5.03(5.19)
%N found (calcd.)	8.01(8.14)	7.68(7.85)	5.41(5.69)	4.48(4.54)
%H found (calcd.)	3.15(3.22)	3.11(3.20)	2.15(2.34)	1.69(1.85)

a. ICP-AES results

b. Fluoride test were measured by ion chromatography.

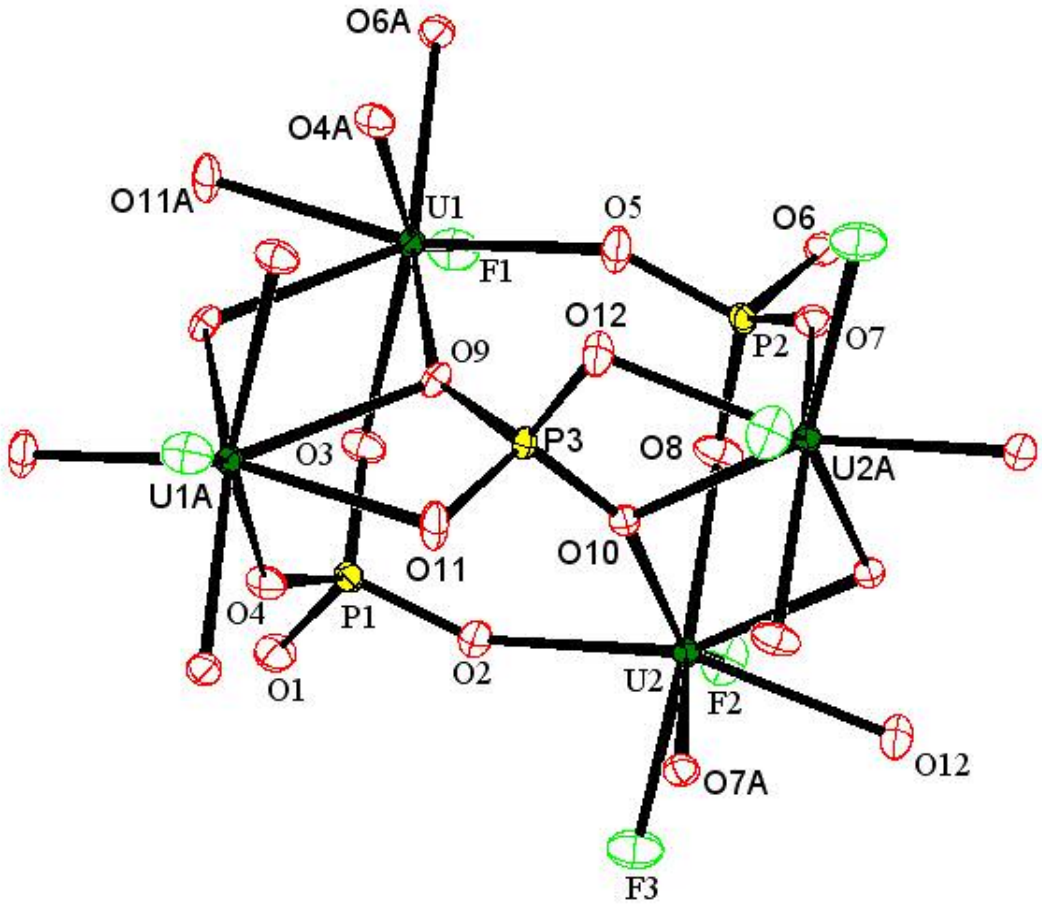

Figure S1. ORTEP of $(C_4H_{16}N_3)[U_2F_3(PO_4)_2(HPO_4)]$ (**1**)

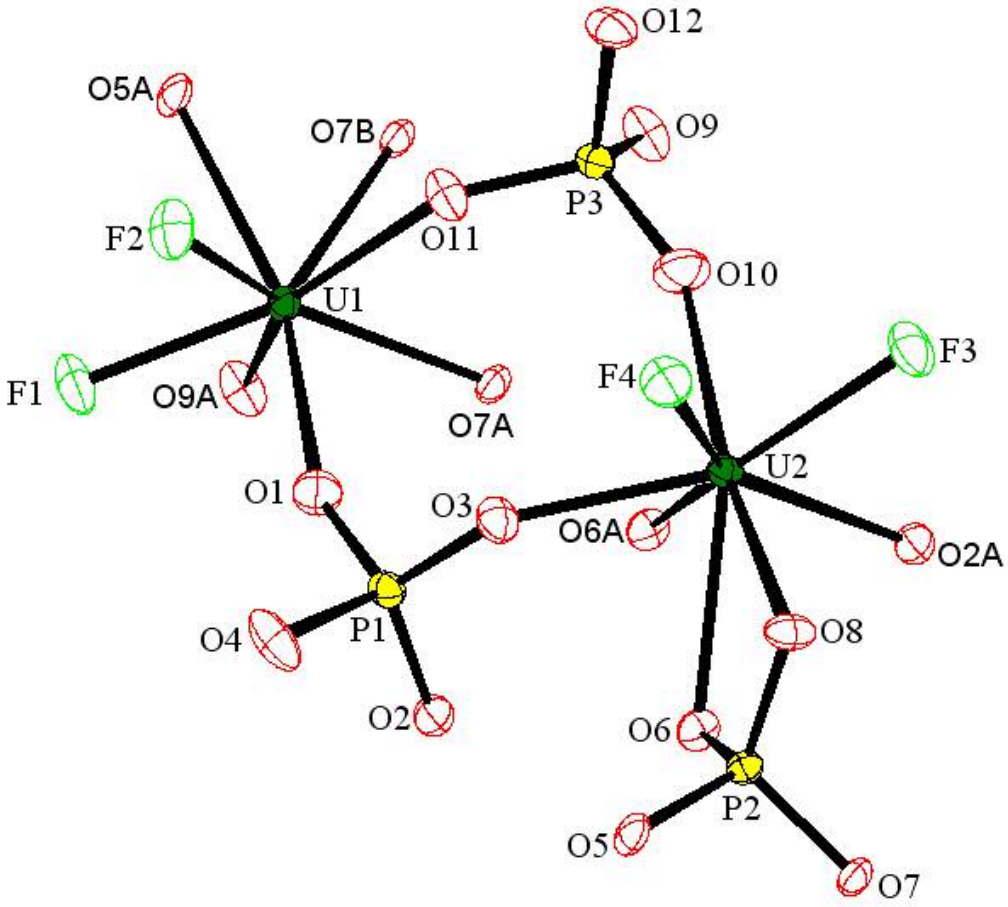

Figure S2. ORTEP of $(C_6H_{21}N_3)[U_2F_4(PO_4)(HPO_4)_2]$ (**2**)

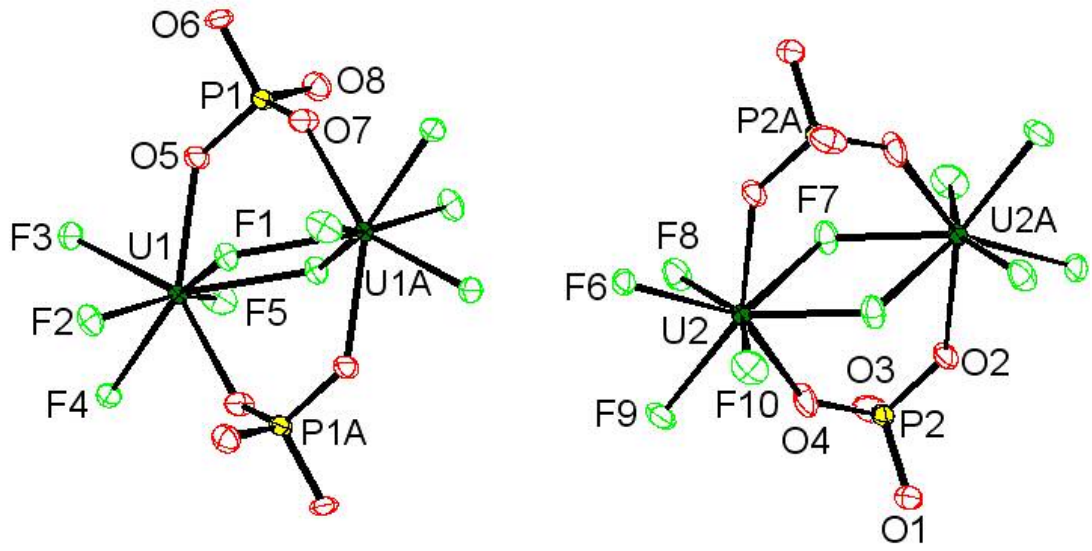

Figure S3. ORTEP of $(C_4H_{16}N_3)_2[U_2F_{10}(HPO_4)_2]$ (**3**)

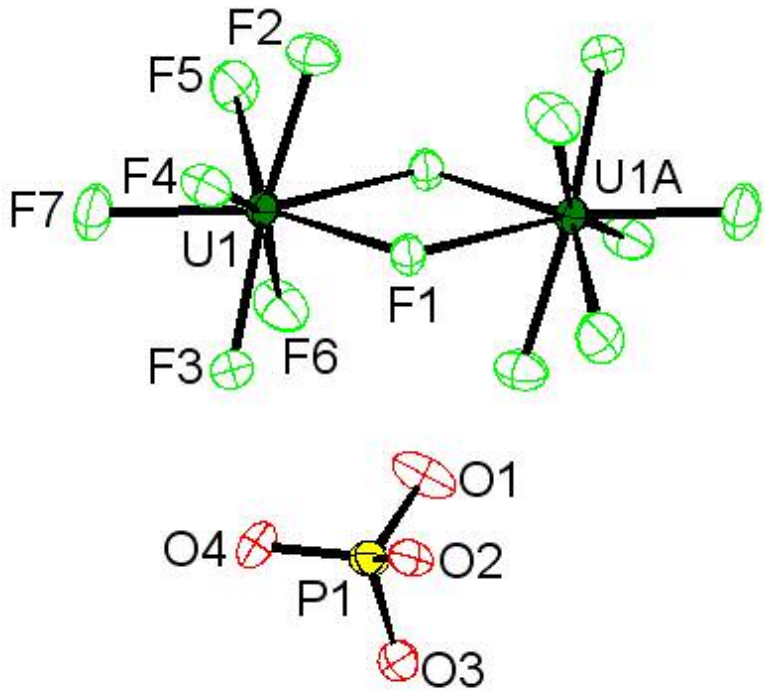

Figure S4. ORTEP of $(C_6H_{16}N_2)_2[(H_2PO_4)UF_7]$ (**4**)

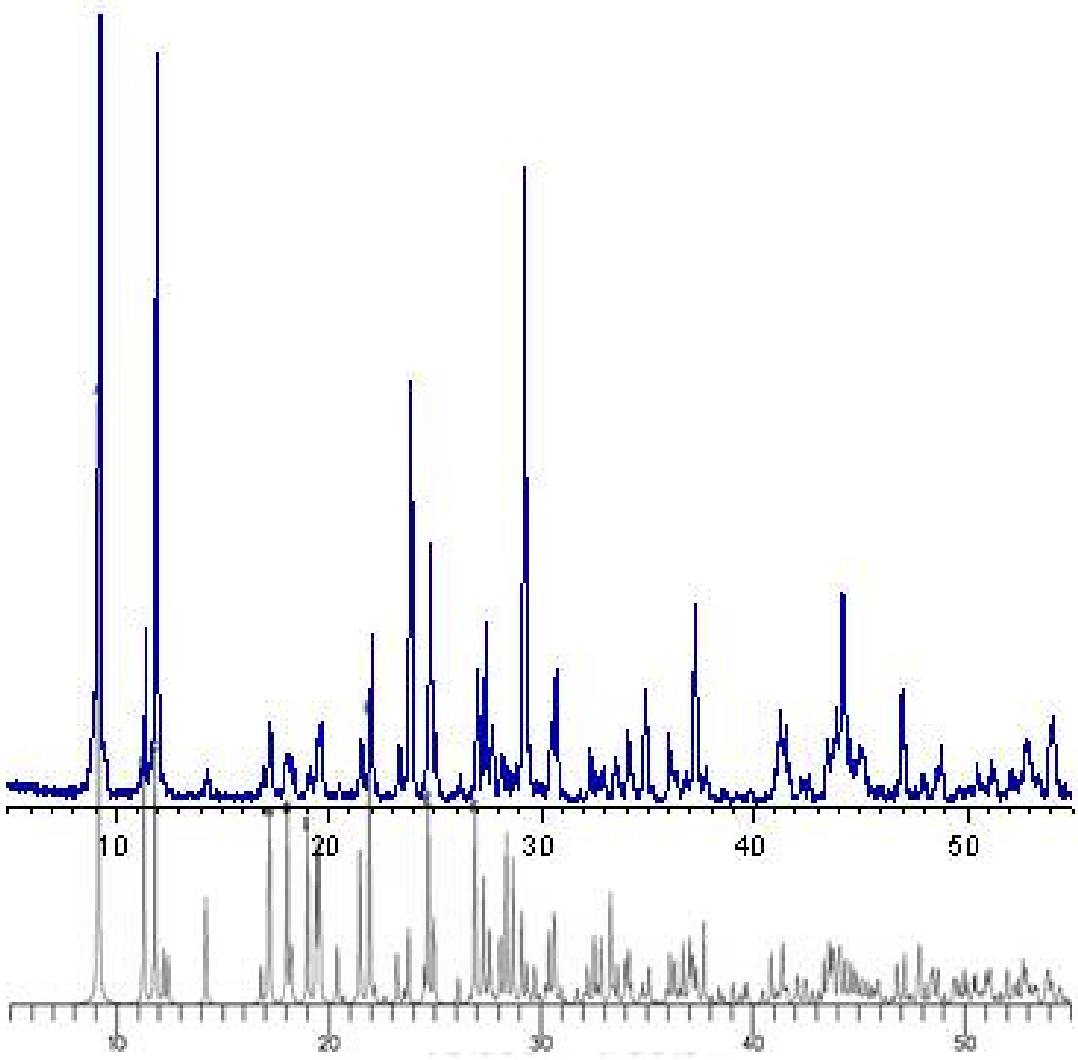

Figure S5. Experimental (top) and simulated (bottom) X-ray powder patterns for $(C_4H_{16}N_3)[U_2F_3(PO_4)_2(HPO_4)]$ (**1**)

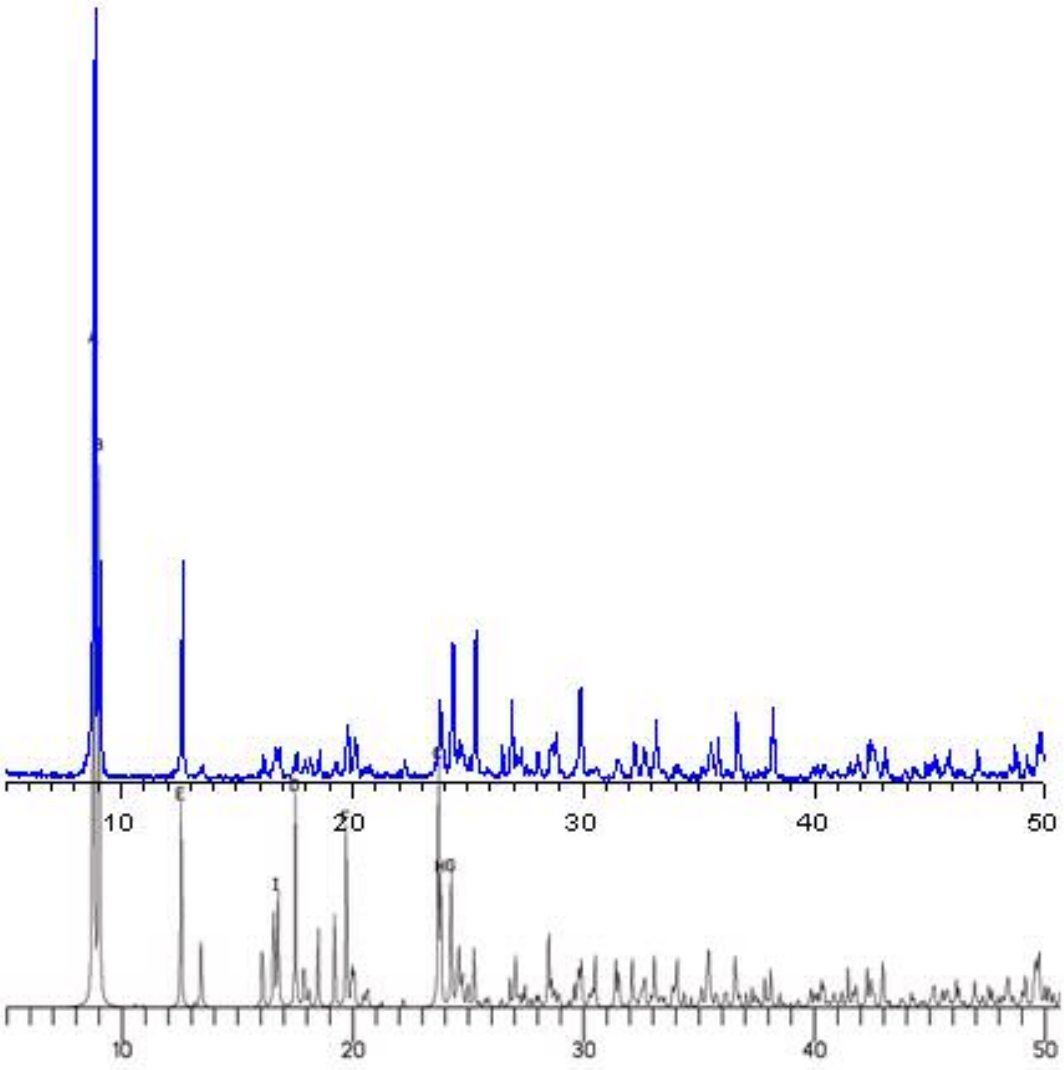

Figure S6. Experimental (top) and simulated (bottom) X-ray powder patterns for $(C_6H_{21}N_3)[U_2F_4(PO_4)(HPO_4)_2]$ (**2**)

Figure S7. Experimental (top) and simulated (bottom) X-ray powder patterns for $(C_6H_{16}N_2)_2[(H_2PO_4)UF_7]$ (**4**)

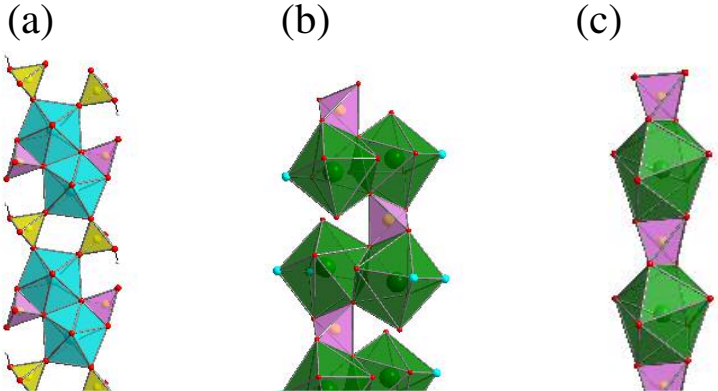

Figure S8. (a) 1D chain structure of U^{6+} ($(H_3A)[UO_2(PO_4)(HPO_4)]$ with A = dien or tren) prepared from the same reactions as **1** and **2** by increasing the concentration of amine templates; (b) and (c) showing the similar connection skeleton of the chain B in **1** and the $_\infty[UPO_4]$ chain in $CaU(PO_4)_2$