U_3O_8	*hP*11	(189) *P*-62*m* – gf^2c

U_3O_8 α ht [1]
Structural features: UO_7 pentagonal bipyramids (the seventh O at a slightly longer distance) share edges to form infinite layers, which are interconnected via common vertices to form a 3D-framework.

Loopstra B.O. (1970) [1]
O_8U_3
a = 0.6812, c = 0.4142 nm, c/a = 0.608, V = 0.1665 nm^3, Z = 1

site	Wyck.	sym.	x	y	z	occ.	atomic environment
O1	3*g*	*m*2*m*	0.6391	0	$^1/_2$		non-colinear U_2
O2	3*f*	*m*2*m*	0.2547	0	0		non-colinear U_2
U3	3*f*	*m*2*m*	0.6474	0	0		octahedron O_6
O4	2*c*	-6..	$^1/_3$	$^2/_3$	0		coplanar triangle U_3

Transformation from published data: -*x*,-*y*,-*z*
Experimental: powder, diffractometer, neutrons, T = 631 K

Remarks: Phase stable at T > 483 K. Supersedes a refinement in space group (38) *Amm*2 in [3], which does not take into consideration all symmetry elements. The structure proposal in space group (162) *P*-31*m* in [2] (original description in space group (147) *P*-3) is also superseded (see [3]).

References: [1] Loopstra B.O. (1970), J. Appl. Crystallogr. 3, 94-96. [2] Siegel S. (1955), Acta Crystallogr. 8, 617-619. [3] Herak R. (1969), Acta Crystallogr. B 25, 2505-2508.