

**TABLE 3 (on deposit).** Anisotropic displacement parameters ( $\text{\AA}^2$ ) for bismuthian vesuvianite

Site	$U^{11}$	$U^{22}$	$U^{33}$	$U^{23}$	$U^{13}$	$U^{12}$
Z1	0.0120(10)	0.0120(10)	0.0059(13)	0	0	0
Z2	0.0104(7)	0.0157(8)	0.0070(7)	0.0023(5)	-0.0010(5)	0.0004(5)
Z3	0.0195(7)	0.0137(6)	0.0086(6)	-0.0011(5)	0.0003(5)	0.0025(5)
X1	0.0269(11)	0.0150(10)	0.0088(8)	0	0	0
X2	0.0140(5)	0.0182(5)	0.0104(5)	-0.0005(4)	-0.0016(4)	0.0008(4)
X4	0.0197(16)	0.0197(16)	0.048(4)	0	0	0
Y1	0.0142(16)	0.0142(16)	0.052(4)	0	0	0
Y2	0.0133(10)	0.0128(10)	0.0124(9)	0.0017(8)	0.0019(8)	0.0004(8)
Y3	0.0142(7)	0.0139(7)	0.0092(6)	0.0003(5)	0.0011(5)	0.0007(4)
O1	0.0236(19)	0.0167(17)	0.0108(16)	0.0006(14)	0.0011(15)	-0.0012(14)
O2	0.0226(19)	0.0201(19)	0.0142(17)	0.0020(15)	-0.0041(15)	-0.0010(15)
O4	0.0198(19)	0.0175(18)	0.0096(17)	0.0003(14)	-0.0028(13)	-0.0014(14)
O3	0.0222(19)	0.0166(18)	0.0103(16)	-0.0011(14)	-0.0003(14)	0.0028(14)
O5	0.0185(19)	0.027(2)	0.0160(18)	-0.0040(16)	0.0019(15)	0.0063(16)
O6	0.039(2)	0.025(2)	0.0170(18)	0.0041(16)	0.0045(18)	0.0080(17)
O7	0.025(2)	0.037(2)	0.020(2)	0.0064(18)	0.0010(17)	0.0085(18)
O8	0.0167(17)	0.0189(18)	0.0171(18)	0.0020(14)	0.0066(14)	0.0023(15)
O9	0.0272(17)	0.0272(17)	0.007(2)	0.0011(16)	-0.0011(16)	-0.004(2)
O10	0.034(3)	0.034(3)	0.085(9)	0	0	0
O11	0.0156(17)	0.0191(18)	0.0155(17)	-0.0036(14)	-0.0020(14)	-0.0016(15)