TABLE S3. The d-spacings, interplanar angles and zone axes of diamond, vesuvianite, xonotlite, perovskite and elpidite in inclusion 5

Analytical No.	（h k l）	d (Å)	Calc (Å)	M.A/C.A (°)	Zone axis [r s t]
1 Diamond 1.2×0.6μm (Size)	1 $\bar{1}$ 1 1 1 $\bar{1}$ 2 0 0	2.099 2.095 1.785	2.059 2.059 1.783	$(1\bar{1}1)\wedge(11\bar{1})$ 108.5/109.5	0 1 1
20 Diamond 0.4×0.3μm	1 1 1 1 $\bar{1}$ 1 2 0 2	2.067 2.054 1.257	2.059 2.059 1.261	$(111)\wedge(11\bar{1})$ 70.4/70.4	1 0 0
33 Diamond 1.0×0.8μm	1 $\bar{1}$ 1 2 2 0 3 1 1	2.070 1.272 1.094	2.059 1.261 1.075	$(1\bar{1}1)\wedge(220)$ 89.3/90.0	$\bar{3}$ 1 4
34 Diamond 1.2×0.7μm	2 2 0 1 $\bar{1}$ 1 3 1 1	1.256 2.068 1.075	1.261 2.059 1.075	$(220)\wedge(1\bar{1}1)$ 90.1/90.0	$\bar{1}$ 1 2
35 Diamond 1.0×0.5μm	2 2 0 1 $\bar{1}$ 1 3 1 1	1.272 2.068 1.080	1.261 2.059 1.075	$(220)\wedge(1\bar{1}1)$ 89.9/90.0	$\bar{1}$ 1 2
8 Vesuvianite (*P4/nnc*) 0.18×0.10μm	4 0 3 2 0 $\bar{1}$ 6 0 2	2.760 6.227 2.345	2.763 6.489 2.372	(045)∧(210) 78.0/77.9	0 1 0
	3 0 $\bar{1}$ 0 1 2 3 1 1	4.573 5.527 4.386	4.743 5.512 4.537	(300)∧($\bar{1}$03) 112.0/113.6	1 $\bar{6}$ 3
9 Vesuvianite (*P4/nnc*) 0.20×0.15μm	3 0 0 0 2 0 3 2 0	5.185 7.765 4.325	5.181 7.772 4.311	(300)∧(020) 90.7/90.0	0 0 1
	4 3 0 1 1 4 5 4 4	3.104 2.849 1.881	3.109 2.847 1.874	(430)∧(114) 75.3/75.1	12 $\overline{16}$ 1
10 Xonotlite ($A\bar{1}$) 0.20×0.10μm	$\bar{1}$ $\bar{1}$ 5 0 3 5 $\bar{1}$ 2 10	2.430 1.791 1.293	2.424 1.795 1.280	$(\bar{1}\bar{1}5)\wedge(035)$ 75.2/74.8	20 $\bar{5}$ 3
6 Perovskite (*Pbnm6*) 0.12×0.03μm	$\bar{1}$ 1 2 1 1 0 0 2 2	2.697 3.927 2.228	2.703 3.825 2.216	$(\bar{1}12)\wedge(110)$ 90.0/90.4	1 $\bar{1}$ 1
13 Perovskite (*Pbnm6*) 0.23×0.11μm	0 $\bar{1}$ 2 1 1 2 1 0 4	3.188 2.724 1.828	3.127 2.703 1.800	$(0\bar{1}2)\wedge(112)$ 72.9/72.9	$\bar{4}$ 2 1
19 Perovskite (*Pbnm6*) 0.11×0.08μm	3 2 1 0 0 2 3 2 3	1.585 2.729 1.224	1.553 2.722 1.209	(321)∧(002) 73.0/73.4	2 3 0

19-1 Perovskite (*Pm-3m*) 0.11×0.08μm	$\bar{1}$ 1 0 1 0 1 0 1 1	2.714 2.683 2.725	2.683 2.683 2.683	$(\bar{1}10)\wedge(101)$ 120.7/120.0	1 1 $\bar{1}$
22 Elpidite (*Pbcm*)	3 $\bar{3}$ 0 0 4 3 3 1 3	2.178 2.861 2.116	2.140 2.934 2.117	$(3\bar{3}0)\wedge(043)$ 110.5/110.5	$\bar{3}$ $\bar{3}$ 4
23-1 Elpidite (*Pbcm*)	2 1 3 $\bar{1}$ 4 $\bar{2}$ 1 5 1	2.882 2.981 2.747	2.828 2.981 2.670	$(213)\wedge(\bar{1}4\bar{2})$ 115.3/114.2	$\overline{14}$ 1 9
23-2 Elpidite (*Pbcm*)	$\bar{1}$ 6 2 2 $\bar{1}$ 0 1 5 2	2.165 3.503 2.509	2.207 3.469 2.546	$(\bar{1}62)\wedge(2\bar{1}0)$ 122.0/120.9	2 4 $\overline{11}$
36 Elpidite (*Pbcm*)	2 $\bar{4}$ 4 0 6 0 2 2 4	2.050 2.497 2.360	2.098 2.447 2.414	$(2\bar{4}4)\wedge(060)$ 124.9/124.9	$\bar{2}$ 0 1

Calculated d-spacings on the basis of following unit-cell parameters (Downs and Hall-Wallace 2003): Vesuvianite: a=b=15.543Å, c=11.791Å, *P4/nnc*; Perovskite: a=5.380 Å, b=5.440 Å, c=7.642 Å, *Pbnm6*; a=b=c=3.795 Å, *Pm-3m*; Xonotlite: a=8.712Å, b=7.363Å, c=14.032Å, $A\bar{1}$; Elpidite: a=7.140 Å, b=14.680 Å, c=14.650 Å, *Pbcm*.