

TABLE 2. Characterisation of zircon textures under CL imagery.

Sample No.	No. of grains	With core? (Y/N) Step 1*	Core type Step 2a*	Textural characteristics Steps 2b, 3a & 3b*	Oscillatory zoning Step 4*	Sector zoning Step 4*
<i>Volcanic Rocks</i>						
HK12025 Shing Mun ignimbrite	299	{ 76% (Y) 24% (N)	{ 74% (B) 2% (C)	{ 26%: Dark core, light rim 21%: Light core, dark rim 29%: Dark core, dark rim 23%: Grain with OZ pattern 1%: Dark or intermediate grain	91%	22%
HK11052 undifferentiated Lantau tuff	295	{ 59% (Y) 41% (N)	{ 24% (A) 35% (B)	{ 37%: Dark core, light rim 18%: Light core, dark rim 4%: Dark core, dark rim 20%: Dark grain 2%: Light or intermediate grain 19%: Grain with OZ pattern	46%	15%
HK11835 Long Harbour crystal-rich ignimbrite	364	{ 57% (Y) 43% (N)	{ 7% (A) 50% (B)	{ 39%: Dark core, dark rim 13%: Light core, dark rim 5%: Dark core, bright rim 42%: Grain with OZ pattern 1%: Dark or intermediate grain	91%	36%
HK13275 Mount Davis crystal-rich ignimbrite	184	{ 85% 15%	{ 19% (A) 62% (B) 4% (C)	{ 64%: Dark core, light rim 19%: Light core, dark rim 2%: Dark core, dark rim 4%: Dark grain 1%: Light grain 10%: Grain with OZ pattern	48%	23%
HK11836 Che Kwu Shan ignimbrite	323	{ 73% (Y) 27% (N)	{ 27% (A) 40% (B) 6% (C)	{ 66%: Dark core, light rim 6%: Light core, dark rim 1%: Dark core, dark rim 14%: Grain with OZ pattern 6%: Dark grain 7%: Light grain	41%	20%
HK11840 Ap Lei Chau ignimbrite	570	{ 72% (Y) 28% (N)	{ 31% (A) 39% (B) 2% (C)	{ 69%: Dark core, light rim 3%: Light core, dark rim 14%: Dark grain 7%: Light grain 7%: Grain with OZ pattern	23%	9%
HK12070 Undifferentiated Kau Sai Chau tuff	364	{ 37% (Y) 63% (N)	{ 31% (B) 6% (C)	{ 28%: Dark core, light rim 7%: Light core, dark rim 2%: Dark core, dark rim 31%: Grain with OZ pattern 30%: Dark grain 2%: Bright grain	42%	11%
HK13277 Pan Long Wan trachydacite lava	522	{ 62% (Y) 38% (N)	{ 48% (A) 14% (B)	{ 62%: Dark core, bright rim 5%: Dark grain 29%: Bright grain 4%: Grain with OZ pattern	15%	9%

TABLE 2. (Continued)

Sample No.	No. of grains	With core? (Y/N) Step 1*	Core Type Step 2a*	Textural characteristics Steps 2b, 3a & 3b*	Oscillatory Zoning Step 4*	Sector Zoning Step 4*
<i>Volcanic Rocks</i>						
HK11834 Clear Water Bay rhyolite ignimbrite	778	50% (Y) 50% (N)	{ 11% (A) 21% (B) 18% (C)	{ 45%: Dark core, light rim 4%: Dark core, dark rim 1%: Light core, dark rim 19%: Dark grain 31% Grain with OZ pattern	41%	20%
HK12073 Clear Water Bay rhyolite lava	256	75% (Y) 25% (N)	{ 32% (A) 10% (B) 33% (C)	{ 65%: Dark core, light rim 6%: Light core, dark rim 4%: Dark core, dark rim 7%: Dark grain 18%: Grain with OZ pattern	66%	13%
HK12001 High Island Tuff	842	62% (Y) 38% (N)	{ 32% (B) 30% (C)	{ 58%: Dark core, dark rim 3%: Light core, dark rim 1%: Dark core, light rim 23%: Dark grain 1%: Light grain 14% Grain with OZ pattern	54%	2%
HK13343 Post-High Island rhyolite lava	254	52% (Y) 48% (N)	{ 18% (A) 11% (B) 23% (C)	{ 30%: Dark core, light rim 17%: Dark core, dark rim 5%: Light core, dark rim 15%: Dark grain 4%: Light grain 29%: Grain with OZ pattern	61%	17%
<i>Plutonic Rocks</i>						
HK11822 Lantau Granite	252	80% (Y) 20% (N)	{ 27% (A) 49% (B) 4% (C)	{ 60%: Light core, dark rim 15%: Dark core, dark rim 5%: Dark core, light rim 3%: Dark grain 4% Light grain 13%: Grain with OZ pattern	26%	8%
HK11831 East Lantau porphyry	300	73% (Y) 27% (N)	{ 29% (A) 41% (B) 3% (C)	{ 67%: Dark core, light rim 5%: Light core, dark rim 1%: Dark core, dark rim 25%: Grain with OZ pattern 2%: Dark or intermediate grain	65%	24%
HK12072 Shui Chen O Granite	157	60% (Y) 40% (N)	{ 5% (A) 42% (B) 13% (C)	{ 49%: Dark core, light rim 7%: Light core, dark rim 4%: Dark core, dark rim 16%: Dark or intermediate grain 24%: Grain with OZ pattern	69%	47%
HK8353 Chi Ma Wan Granite	336	70% (Y) 30% (N)	{ 28% (A) 40% (B) 2% (C)	{ 29%: Dark core, light rim 25%: Light core, dark rim 16%: Dark core, dark rim 17%: Dark grain 3%: Light to intermediate grain 10%: Grain with OZ pattern	38%	7%

TABLE 2. (Continued)

Sample No.	No. of grains	With core? (Y/N) Step 1*	Core Type Step 2a*	Textural characteristics Steps 2b, 3a & 3b*	Oscillatory Zoning Step 4*	Sector Zoning Step 4*
<i>Intrusive Rocks</i>						
HK12023 Sok Kwu Wan Granite	301	58% (Y) 42% (N)	{ 39% (B) 19% (C)	{ 53%: Dark core, light rim 3%: Light core, dark rim 2%: Dark core, dark rim 27%: Grain with OZ pattern 13%: Dark to intermediate grain 2%: Light grain	52%	14%
HK12022 D'Aquilar Quartz Monzonite	262	79% (Y) 21% (N)	{ 55% (A) 24% (B)	{ 76%: Dark core, light rim 2%: Light core, dark rim 1%: Dark core, dark rim 4%: Dark grain 6%: Light grain 11%: Grain with OZ pattern	32%	38%
HK8758 Tong Fuk Quartz Monzonite	313	62% (Y) 38% (N)	{ 36% (A) 18% (B) 8% (C)	{ 60%: Dark core, bright rim 2%: Light core, dark rim 12%: Dark grain 6%: Bright or intermediate grain 20%: Grain with OZ pattern	36%	17%
HK11042 Kowloon Granite	674	87% (Y) 13% (N)	{ 82% (B) 5% (C)	{ 76%: Light core, dark rim 6%: Dark core, dark rim 5%: Dark core, light rim 10%: Dark grain 3%: Grain with OZ pattern	8%	2%
HK13407 Mount Butler Granite	297	63% (Y) 37% (N)	{ 33% (A) 29% (B) 1% (C)	{ 50%: Light core, dark rim 4%: Dark core, dark rim 9%: Dark core, light rim 18%: Dark grain 19%: Grain with OZ pattern	56%	12%

Note: See Fig. 2 and associated text for the system used to classify the zircon grains and descriptions of each step (*) listed.