

## Cordylite-(Ce): A crystal chemical investigation of material from four localities, including type material 178

TABLE 3. Refined displacement parameters for cordylite-(Ce) samples

Locality		Narssarssuk			Mont St. Hilaire		Kola Pen.	Bayan Obo
		1*	1	2	1	2	1	1
Ba	U1,1	0.011(0)	0.016(0)	0.0134(3)	0.012(1)	0.0116(3)	0.017(0)	0.026(1)
	U3,3	0.016(0)	0.016(0)	0.0114(5)	0.017(1)	0.0108(4)	0.024(0)	0.040(1)
Ce	U1,1	0.006(0)	0.012(0)	0.0085(2)	0.008(0)	0.0078(2)	0.012(0)	0.014(0)
	U3,3	0.013(0)	0.013(0)	0.0101(3)	0.014(1)	0.0084(2)	0.020(0)	0.035(1)
Na	U1,1	0.007(2)	0.020(1)	0.028(2)	0.012(4)	0.019(2)	0.022(1)	0.033(2)
	U3,3	0.006(2)	0.009(1)	0.005(2)	0.010(6)	0.010(2)	0.022(2)	0.023(3)
F	U1,1	0.044(6)	0.051(4)	0.036(5)	0.049(11)	0.030(4)	0.060(5)	0.081(12)
	U3,3	0.005(3)	0.012(2)	0.009(5)	0.002(9)	0.011(4)	0.022(5)	0.038(11)
C1	U1,1	0.008(2)	0.013(1)	0.019(5)	0.010(7)	0.008(3)	0.015(3)	0.019(6)
	U3,3	0.012(3)	0.010(2)	0.000(4)	0.001(9)	0.012(5)	0.016(5)	0.038(11)
O1	U1,1	0.010(1)	0.017(1)	0.013(2)	0.010(3)	0.011(2)	0.016(1)	0.023(3)
	U2,2	0.004(2)	0.010(1)	0.008(3)	0.006(6)	0.007(2)	0.010(2)	0.013(4)
	U3,3	0.024(2)	0.024(1)	0.020(2)	0.020(4)	0.019(2)	0.033(2)	0.055(5)
C2	U1,3	-0.000(1)	0.000(1)	-0.001(1)	0.000(2)	-0.000(1)	0.000(1)	-0.000(2)
	U1,1	0.006(2)	0.016(1)	0.015(4)	0.025(9)	0.017(3)	0.021(3)	0.029(6)
	U3,3	0.011(3)	0.011(2)	0.003(5)	0.00(1)	0.002(4)	0.018(4)	0.031(10)
O2	U1,1	0.025(2)	0.027(1)	0.024(3)	0.019(5)	0.019(1)	0.027(2)	0.044(4)
	U2,2	0.003(2)	0.013(1)	0.010(3)	0.004(5)	0.007(1)	0.013(2)	0.020(4)
	U3,3	0.020(2)	0.022(1)	0.017(2)	0.021(5)	0.019(2)	0.028(2)	0.057(5)
	U1,3	-0.001(1)	0.000(1)	-0.000(1)	-0.003(2)	0.000(2)	0.001(1)	0.001(2)

Note: \* Type sample of cordylite from Narssarssuk, Greenland.

1 Analyzed by Vienna group.

2 Analyzed by Miami group.

Numbers in parentheses denote the standard deviation.

For atoms Ba, Ce, Na, F, C1 and C2:  $U_{1,1} = U_{2,2}$ ,  $U_{1,2} = 0.5 \times U_{1,1}$ ,  $U_{1,3} = U_{2,3} = 0$ ;

for atoms O1 and O2:  $U_{1,2} = 0.5 \times U_{2,2}$ ,  $U_{2,3} = 2 \times U_{1,3}$ .