## Tectono-metamorphic evolution and stratigraphy of the European continental

margin involved in the Alpine subduction: New insights from Alpine Corsica,

## France

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Giorgi

## **Supplementary Material**

**Fig. Sm1.** Mesoscopic and microscopic aspects of the studied rocks. (a) Macrophotograph of S0+S2 foliation in the Metabreccia Fm. (CPU, Corte area), F2 isoclinal folds and F3 folds in Metabreccia Fm., Corte area (CPU). A.P.2: F2 axial plane; A.P.3: F3 axial plane. (b) Photomicrograph of S1 foliation (S1) preserved within D2 microlithon in the F2 hinge zone of the Metasandstone Fm., PPU, Corte area, sample CM32C. S2: S2 foliation; Wm: white mica; Chl: chlorite. Metabreccia Fm., Corte area (CDU, sample CM24C). (c) cm-sized F3 fold in foliated metagranitoids, Ghisoni area (GHU). (d) Photomicrograph of metagranitoids, Ghisoni area (GHU, sample GHI21). The granoblastic layer consists of recrystallized quartz (Qtz) affected by incipient subgrain rotation recrystallization mechanism. ng: new grain of quartz; og: old grain of quartz; Wm: white mica.



**Fig. Sm2.** Additional mesoscopic and microscopic pictures of the deformation history of the Lower Units. (a) S–C' fabric in the Detritic Metalimestone Fm., Castiglione–Popolasca Unit, Corte area (C': shear plane; S2: S2 foliation); (b) S-C' microfabric in the Metavolcanic and Metavolcaniclastic Fm., sample CMD51, Ghisoni area; crossed Nicols (C': shear plane; S2: S2 foliation; ulmy: ultramylonite layer); (c) S2 mylonitic foliation in metagranitoids, GHI22, Ghisoni area, crossed Nicols (S2: S2 foliation; Wm: white micas; Qtz: quartz; Pl: plagioclase); (d)  $\sigma$ -type amphibole porphyroclast in the epidote-bearing metagabbros, Ghisoni Unit, sample GHI18, parallel Nicols.



**Fig. Sm3.** Ternary diagrams showing the proportion in each sample of chlorite (a) and phengite (b) end-members. (c) Si-intensity map acquired with EPMA. (d) P-T equilibrium conditions of the three generations of Chl–Phg couples (the error of each cross is ±0.2 GPa and ±30°C). The dots in the maps indicate the sampled microareas from which the P-T estimates were obtained.



Dama         Si C <sub>yas</sub> Si	Sample	CAU (CMD80A)				PEU (CMD83A)				SCU (CM34B)									
Name     Order     Order    <	Domain	S1 (/	P <sub>peak</sub> )	S1 (7	"peak)	S	32	S1	(P <sub>peak</sub> )	S1	(T <sub>peak</sub> )	S	52	S1 (	(P <sub>peak</sub> )	S1	(T <sub>peak</sub> )	S	52
WishValue <t< td=""><td>Analyse</td><td>Chl7 0</td><td>Phg6 7</td><td>Chll 6</td><td>Phg4 3</td><td>Chl1 9</td><td>Phg7 2</td><td>Chl2</td><td>Phg5</td><td>Chl8</td><td>Phg1</td><td>Chl1 0</td><td>Phg2</td><td>Chll</td><td>Phg1 0</td><td>Chl6</td><td>Phg8</td><td>Chl5</td><td>Phg7</td></t<>	Analyse	Chl7 0	Phg6 7	Chll 6	Phg4 3	Chl1 9	Phg7 2	Chl2	Phg5	Chl8	Phg1	Chl1 0	Phg2	Chll	Phg1 0	Chl6	Phg8	Chl5	Phg7
Sine	Wt%									1	- I	1			1	1	1		
ThONoNoNoNoNoNoNoNoNoNoNoNoNoNoNoNoNoNoRef21.0Set	SiO <sub>2</sub>	25.94	51.57	27.26	52.70	27.68	51.28	23.35	49.63	23.06	47.54	24.23	50.59	24.14	55.90	26.42	50.93	27.33	51.27
Her     Iss     Iss </td <td>TiO<sub>2</sub></td> <td>0.01</td> <td>0.05</td> <td>0.01</td> <td>0.06</td> <td>0.01</td> <td>0.06</td> <td>0.07</td> <td>0.18</td> <td>0.03</td> <td>0.14</td> <td>2.26</td> <td>0.43</td> <td>0.04</td> <td>0.06</td> <td>0.03</td> <td>0.05</td> <td>0.04</td> <td>0.06</td>	TiO <sub>2</sub>	0.01	0.05	0.01	0.06	0.01	0.06	0.07	0.18	0.03	0.14	2.26	0.43	0.04	0.06	0.03	0.05	0.04	0.06
Fer         1.5         4.62         2.2.4         4.3         2.0.9         4.31         3.10         4.0.1         3.2.7         4.9.1         2.0.7         4.9.1         2.0.7         4.9.1         2.0.7         4.9.1         2.0.7         4.9.1         2.0.7         4.9.1         2.0.7         4.9.1         2.0.7         4.9.1         2.0.7         4.9.1         2.0.7         4.9.1         2.0.7         4.9.1 </td <td><math>Al_2O_3</math></td> <td>18.87</td> <td>26.81</td> <td>17.31</td> <td>25.42</td> <td>17.75</td> <td>24.07</td> <td>19.85</td> <td>22.91</td> <td>15.70</td> <td>26.61</td> <td>16.53</td> <td>23.08</td> <td>17.57</td> <td>24.29</td> <td>16.47</td> <td>24.65</td> <td>16.60</td> <td>24.22</td>	$Al_2O_3$	18.87	26.81	17.31	25.42	17.75	24.07	19.85	22.91	15.70	26.61	16.53	23.08	17.57	24.29	16.47	24.65	16.60	24.22
MMC0ist	FeO	21.76	4.02	22.24	4.23	22.69	4.31	31.70	9.43	31.37	8.91	32.07	6.57	27.82	4.53	27.10	5.07	27.08	4.68
MgO     15.1     5.00     10.0     10.1     2.01     10.1     2.07     1.00     1.02     1.02     1.02     1.02     1.02     1.02     1.02     1.02     1.02     1.02     1.02     1.02     1.02     1.02     1.02     1.02     1.02     1.01     1.02     1.01     1.02     1.01     1.02     1.01     1.02     1.01     1.02     1.01     1.02     1.01     1.02     1.01     1.02     1.01     1.02     1.01     1.02     1.01     1.02     1.01     1.02     1.01    <	MnO	0.42	0.04	0.42	0.04	0.37	0.03	0.79	0.09	0.29	0.05	0.46	0.08	0.25	0.05	0.56	0.06	0.38	0.04
Ca NG/00.100.01 <td>MgO</td> <td>15.91</td> <td>3.49</td> <td>18.58</td> <td>3.82</td> <td>18.15</td> <td>4.19</td> <td>10.24</td> <td>2.85</td> <td>5.01</td> <td>1.91</td> <td>7.11</td> <td>2.37</td> <td>11.79</td> <td>3.79</td> <td>12.32</td> <td>3.82</td> <td>12.47</td> <td>3.71</td>	MgO	15.91	3.49	18.58	3.82	18.15	4.19	10.24	2.85	5.01	1.91	7.11	2.37	11.79	3.79	12.32	3.82	12.47	3.71
No.eN	CaO	0.15	0.07	0.21	0.08	0.13	0.08	0.08	0.06	0.25	0.06	0.10	0.23	0.11	0.03	0.13	0.03	0.13	0.03
Key00<	Na <sub>2</sub> O	0.04	0.04	0.04	0.05	0.03	0.05	0.02	0.15	0.06	0.06	0.02	0.45	0.02	0.02	0.02	0.02	0.02	0.02
no.         no. </td <td>K<sub>2</sub>O</td> <td>0.05</td> <td>10.38</td> <td>0.08</td> <td>8.53</td> <td>0.06</td> <td>14.34</td> <td>0.09</td> <td>10.00</td> <td>0.31</td> <td>10.85</td> <td>0.18</td> <td>8.68</td> <td>0.38</td> <td>8.39</td> <td>0.41</td> <td>8.28</td> <td>0.46</td> <td>8.27</td>	K <sub>2</sub> O	0.05	10.38	0.08	8.53	0.06	14.34	0.09	10.00	0.31	10.85	0.18	8.68	0.38	8.39	0.41	8.28	0.46	8.27
Vert were definite and and any series of the serie	tot.	83.15	96.46	86.15	94.94	86.87	98.41	86.19	95.30	76.06	96.13	82,96	92.48	82.12	97.05	82.45	92,90	84.51	92.29
Sind2.443.422.883.512.983.522.983.523.283.523.523.623.523.643.623.573.643.523.573.643.523.573.643.523.573.643.523.573.643.523.573.643.523.573.643.523.573.573.583.543.543.543.553.57	Cations					1						-1			1				
Ind         -         0.03         -         0.03         0.01<	Si	2.84	3.42	2.88	3.51	2.91	3.43	2.63	3.44	2.98	3.27	2.85	3.52	2.80	3.62	2.92	3.48	3.04	3.52
Ard         2.44         2.40         4.40         2.40           Ca         0.00	Ti	-	-	-	-	-	-	0.01	0.01	-	0.01	0.20	0.02	-	-	-	-	-	-
ref         1.98         0.22         1.97         0.34         1.98         0.35         3.98         0.15         1.58         0.85         0.20         0.25         0.00         0.97         0.20         0.25         0.01 <th< td=""><td>AI</td><td>2.44</td><td>2.10</td><td>2.16</td><td>2.00</td><td>2.20</td><td>1.90</td><td>2.63</td><td>1.87</td><td>2.39</td><td>2.16</td><td>2.29</td><td>1.89</td><td>2.40</td><td>1.86</td><td>2.23</td><td>1.99</td><td>2.17</td><td>1.96</td></th<>	AI	2.44	2.10	2.16	2.00	2.20	1.90	2.63	1.87	2.39	2.16	2.29	1.89	2.40	1.86	2.23	1.99	2.17	1.96
Nm         0.00         -         0.00         -         0.00 </td <td>Fe<sup>-</sup></td> <td>1.99</td> <td>0.22</td> <td>1,97</td> <td>0.34</td> <td>1.99</td> <td>0.24</td> <td>2.98</td> <td>0.55</td> <td>3.39</td> <td>0.51</td> <td>3.15</td> <td>0.38</td> <td>2.70</td> <td>0.25</td> <td>2.60</td> <td>0.29</td> <td>2.52</td> <td>0.27</td>	Fe <sup>-</sup>	1.99	0.22	1,97	0.34	1.99	0.24	2.98	0.55	3.39	0.51	3.15	0.38	2.70	0.25	2.60	0.29	2.52	0.27
mag         L.97         0.33         2.94         0.36         2.94         0.74           Samp         C	Ma	0.04	- 0.25	2.04	0.29	0.03	0.42	0.08	0.01	0.03	0.20	0.05	0.01	2.04	0.27	0.05	0.20	2.06	
Na         -         -         0.00 </td <td>Ca</td> <td>0.03</td> <td>0.35</td> <td>2.94</td> <td>0.38</td> <td>0.02</td> <td>0.42</td> <td>0.01</td> <td>0.25</td> <td>0.97</td> <td>0.20</td> <td>0.01</td> <td>0.23</td> <td>2.04</td> <td>0.37</td> <td>0.02</td> <td>0.39</td> <td>2.00</td> <td>0.38</td>	Ca	0.03	0.35	2.94	0.38	0.02	0.42	0.01	0.25	0.97	0.20	0.01	0.23	2.04	0.37	0.02	0.39	2.00	0.38
K         0.01         0.02         0.01         0	Na	0.05	_	0.02	0.01	0.02	0.01	0.01	0.02	0.04	0.01	0.01	0,02	0.01		0.02		0.01	
Sum ox         14         14         14         11 <t< td=""><td>K</td><td>0.01</td><td>0.88</td><td>0.01</td><td>0.72</td><td>0.01</td><td>1.22</td><td>0.01</td><td>0.88</td><td>0.05</td><td>0.95</td><td>0.01</td><td>0.77</td><td>0.06</td><td>0.69</td><td>0.06</td><td>0.72</td><td>0.07</td><td>0.72</td></t<>	K	0.01	0.88	0.01	0.72	0.01	1.22	0.01	0.88	0.05	0.95	0.01	0.77	0.06	0.69	0.06	0.72	0.07	0.72
Sample         C PU (CH22B)         PU (CH2 <b)< th="">         PU (CH2<b)< th="">         SI (<math>P_{pak}</math>)         SI (<math>P_{pak}</math>)</b)<></b)<>	sum ox	14	11	14	11	14	11	14	11	14	11	14	11	14	11	14	11	14	11
Sample $\Box V \cup (\Box U = 1)$ $\Box V \cup (\Box = 1)$ <th< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></th<>																			
Domain         S1 (P <sub>peak</sub> )         S1 (P <sub>peak</sub> )         S1 (P <sub>peak</sub> )         S2         S1 (P <sub>peak</sub> )         S1 (P <sub>peak</sub> ) <th< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></th<>																			
Analyse         Ch 157         Pa 20         Ch 28         Pa 50         Ch 20         Pa 13         Ch 31         Pa 13         Ch 13         Pa 13         Ch 14	Sample			CPU (	CM22	B)			P	PU (CI	M21)				GH	U (CM	(D50D)		
Mt%         SiO         V	Sample Domain	S	1 (P <sub>peak</sub> )	CPU (	CM22 (T <sub>peak</sub> )	B)	52	S1 ( <i>I</i>	P <sub>peak</sub> )	PPU (CI S1 (T <sub>pc</sub>	<b>M21)</b>	S2		S1 (P <sub>per</sub>	GH	U <b>(CM</b> S1	( <b>D50D</b> ) ( <i>T</i> <sub>peak</sub> )	5	52
SiO2         25.77         50.81         27.22         52.92         28.14         45.36         28.27         48.40         25.58         50.22         30.67         52.77         28.65         49.57         28.19         50.58         28.21         50.08           TiO2         0.03         0.27         0.03         0.18         0.03         0.23         0.02         0.11         0.03         0.12         0.02         0.02         0.04         0.03         0.06         0.04         0.04           Al2O3         19.68         20.36         22.35         28.71         19.51         22.06         22.61         3.05         20.77         23.67         28.36         22.94         28.25         21.5         29.18         19.08         29.03           FeO         24.47         4.30         23.58         3.42         2.45         3.31         2.691         3.03         2.27         0.03         0.55         0.04         0.63         0.05         0.60         0.03         0.04         0.03         0.03         0.55         0.03         0.55         0.03         0.55         0.04         0.05         0.05         0.04         0.01         0.01         0.03         0.05	Sample Domain Analyse	S Chl 75	1 (P <sub>peak</sub> ) 7 Phg 269	CPU ( S1	CM22 ( <i>T</i> <sub>peak</sub> )	B) S Chl 26	22 Phg 136	S1 (F	Ppeak) Phg 18 C	PPU (CI S1 (T <sub>pc</sub>	M21) eak) hg 13 Ch	S2	5 Chl 2414	S1 (P <sub>pea</sub>	<b>GH</b> <sub>ak</sub> )	U (CM S1 <sup>Chl 48</sup> P	( <b>D50D</b> ) ( <i>T</i> <sub>peak</sub> ) hg 124	Chl 43	S2 Phg 322
TiO2         0.00 <th< td=""><td>Sample Domain Analyse</td><td>S Chl 75</td><td>1 (P<sub>peak</sub>)</td><td>CPU ( S1 Chl 85</td><td>CM22 (<i>T</i><sub>peak</sub>)</td><td>B) Chl 26 F</td><td>52 Phg 136</td><td>S1 (<i>I</i></td><td>Ppeak) Phg 18 C</td><td>PPU (CI           S1 (Tpc           hl 18</td><td>M21) eak) hg 13 Ch</td><td>S2</td><td>5 Chl 2414</td><td>S1 (P<sub>pea</sub> 15 Phg</td><td>GH <sub>ak</sub>)</td><td>U (CM S1 Chl 48</td><td>(<i>T</i><sub>peak</sub>) (<i>T</i><sub>peak</sub>)</td><td>Chl 43</td><td>52 Phg 322</td></th<>	Sample Domain Analyse	S Chl 75	1 (P <sub>peak</sub> )	CPU ( S1 Chl 85	CM22 ( <i>T</i> <sub>peak</sub> )	B) Chl 26 F	52 Phg 136	S1 ( <i>I</i>	Ppeak) Phg 18 C	PPU (CI           S1 (Tpc           hl 18	M21) eak) hg 13 Ch	S2	5 Chl 2414	S1 (P <sub>pea</sub> 15 Phg	GH <sub>ak</sub> )	U (CM S1 Chl 48	( <i>T</i> <sub>peak</sub> ) ( <i>T</i> <sub>peak</sub> )	Chl 43	52 Phg 322
Al <sub>2</sub> O <sub>3</sub> 19.8         20.8         20.3         20.7         20.8         20.7         20.8         20.8         20.9         20.8      <	Sample Domain Analyse Wt% SiO <sub>2</sub>	S Chl 75	1 (P <sub>peak</sub> ) 7 Phg 269 7 50 81	CPU ( S1 Chl 85	CM22 ( <i>T</i> <sub>peak</sub> )	B) Chl 26 F 28 14	62 Phg 136	S1 ( <i>P</i>	Ppeak) Phg 18 C	PPU (CI           S1 (Tpc           hl 18           Pl           25 58	M21) rak) hg 13 Ch	S2	5 Chl 2414	S1 (P <sub>per</sub>	GH (k) (11120 (49.57)	U (CM S1 Chl 48 P 28 19	( <i>T</i> <sub>peak</sub> ) ( <i>T</i> <sub>peak</sub> ) ( <i>T</i> <sub>peak</sub> )	Chl 43	50.08
FeO         24.47         4.30         25.8         3.48         24.50         3.20 <t< td=""><td>Sample Domain Analyse Wt% SiO<sub>2</sub> TiO<sub>2</sub></td><td>S Chl 75 25.7 0.03</td><td>1 (P<sub>peak</sub>) 7 Phg 269 7 50.81</td><td>CPU ( S1 Chl 85 1 27.22 0.03</td><td>CM22 (<i>T</i><sub>peak</sub>) 6 Phg 55 52.92 0.18</td><td>B) Chl 26 F 28.14 0.03</td><td>32 Phg 136 45.36 0.23</td><td>S1 (<i>F</i> <i>Chl 31</i> 28.27 0.02</td><td>Ppeak) Phg 18 C 48.40 0.11</td><td>PPU (CI           S1 (Tpc           hl 18         Pl           25.58         0.03</td><td>M21)           sak)           hg 13         Ch           50.22         30           0.12         0</td><td>S2 112 Phg 0.67 55.2 03 0.21</td><td>5 Chl 2414 7 28.6 0.22</td><td>S1 (P<sub>pes</sub> 15 Phg 5</td><td>GH (k) (11120 49.57 0.04</td><td>U (CM S1 Chl 48 P 28.19 0.03</td><td>ID50D)           (Tpeak)           thg 124           50.58           0.06</td><td>Chl 43 28.21 0.04</td><td>50.08 0.04</td></t<>	Sample Domain Analyse Wt% SiO <sub>2</sub> TiO <sub>2</sub>	S Chl 75 25.7 0.03	1 (P <sub>peak</sub> ) 7 Phg 269 7 50.81	CPU ( S1 Chl 85 1 27.22 0.03	CM22 ( <i>T</i> <sub>peak</sub> ) 6 Phg 55 52.92 0.18	B) Chl 26 F 28.14 0.03	32 Phg 136 45.36 0.23	S1 ( <i>F</i> <i>Chl 31</i> 28.27 0.02	Ppeak) Phg 18 C 48.40 0.11	PPU (CI           S1 (Tpc           hl 18         Pl           25.58         0.03	M21)           sak)           hg 13         Ch           50.22         30           0.12         0	S2 112 Phg 0.67 55.2 03 0.21	5 Chl 2414 7 28.6 0.22	S1 (P <sub>pes</sub> 15 Phg 5	GH (k) (11120 49.57 0.04	U (CM S1 Chl 48 P 28.19 0.03	ID50D)           (Tpeak)           thg 124           50.58           0.06	Chl 43 28.21 0.04	50.08 0.04
MnO         0.42         0.02         0.36         0.03         0.44         0.42         0.03         0.27         0.33         0.35         0.04         0.63         0.05         0.04         0.63         0.05         0.04         0.63         0.05         0.04         0.63         0.05         0.04         0.05         0.05         0.05         0.05         0.05         0.05         0.05         0.05         0.05         0.05         0.05         0.05         0.05         0.05         0.05         0.07         0.05         0.07         0.05         0.07         0.05         0.07         0.05         0.05         0.01	Sample Domain Analyse Wt% SiO <sub>2</sub> TiO <sub>2</sub> Al <sub>2</sub> O <sub>3</sub>	Chl 75	1 (Ppeak)           7 Phg 269           7 50.81           0,27           8 20.86	CPU ( S1 Chl 85 1 27.22 0.03 5 22.35	CM22 ( <i>T</i> <sub>peak</sub> ) 6 Phg 55 52.92 0.18 28.77	B) Chl 26 F 28.14 0.03 19.51	32 Phg 136 45.36 0.23 22.06	S1 ( <i>F</i> <i>Chl 31</i> 28.27 0.02 22.61	Ppeak) Phg 18 C 48.40 0.11 30.56	PPU (C!           S1 (Tpc           hl 18         Pl           25.58         0.03           20.98         20.98	M21)           sak)	S2 1 12 Phg 0.67 55.2 0.3 0.21 0.67 28.3	7 28.6 5 Chl 2414	S1 (P <sub>pes</sub> 5 2	GH (11120 49.57 0.04 28.25	U (CM S1 Chl 48 P 28.19 0.03 22.15	D50D)           (T <sub>peak</sub> )           hg 124           50.58           0.06           29.18	Chl 43 28.21 0.04 19.08	52 Phg 322 50.08 0.04 29.03
MgO         14.94         3.17         13.21         3.65         15.15         2.69         13.99         0.03         13.91         3.62         18.03         3.19         17.76         2.83         18.92         2.67           CaO         0.01         0.04         0.01         0.02         0.01	Sample Domain Analyse Wt% SiO <sub>2</sub> TiO <sub>2</sub> Al <sub>2</sub> O <sub>3</sub> FeO	Chl 75 Chl 75 25.7 0.03 19.6 24.4	I         (Ppcak)           7         Phg 269           7         50.81           7         0.27           3         20.86           7         4.30	CPU ( S1 Chl 85 1 27.22 0.03 5 22.35 23.58	CM22 (T <sub>peak</sub> ) 6 Phg 55 52.92 0.18 28.77 3.48	B) Chl 26 F 28.14 0.03 19.51 24.85	32 Phg 136 45.36 0.23 22.06 4.19	S1 ( <i>I</i> Chl 31 28.27 0.02 22.61 22.54	Phg 18         C           48.40         0.11           30.56         3.31	PU (C!           S1 (Tpc           hl 18         Pl           25.58         0.03           20.98         26.91	M21)           sak)	S2 1 12 Phg 0.67 55.2 03 0.21 0.67 28.3 0.87 3.48	7 28.6 0.22 22.1	S1 (P <sub>pea</sub> 15 Phg 5 2 4 0	GH (11120 (49.57 0.04 28.25 4.26	U (CM S1 Chi 48 P 28.19 0.03 22.15 21.70	<b>D50D)</b> ( <i>T</i> <sub>peak</sub> ) hg 124 50.58 0.06 29.18 4.00	Chl 43 28.21 0.04 19.08 22.51	52 Phg 322 50.08 0.04 29.03 3.61
CaO         0.01         0.01         0.01         0.01         0.04         0.01         0.03         0.02         0.04         0.05         0.05         0.07         0.09         0.03           Na2O         0.02         0.17         0.02         0.03         0.02         0.07         0.05         0.14         0.05         0.15         0.05         0.04         0.01         0.01         0.03         0.01         0.03         0.01         0.03         0.01         0.03         0.01         0.01         0.03         0.01         0.03         0.01         0.01         0.03         0.01         0.01         0.03         0.01         0.01         0.03         0.01         0.0	Sample Domain Analyse Wt% SiO <sub>2</sub> TiO <sub>2</sub> Al <sub>2</sub> O <sub>3</sub> FeO MnO	Chl 75 Chl 75 25.7 0.03 19.6 24.4 0.42	I         (P <sub>peak</sub> )           7         Phg 269           7         50.81           0,27         8           20.86         7           4.30         0.02	CPU ( S1 Chl 85 Chl 85 1 27.22 0.03 5 22.35 23.58 0.36	CM22 ( <i>T</i> <sub>peak</sub> ) 6 Phg 55 52.92 0.18 28.77 3.48 0.03	B) Chl 26 F 28.14 0.03 19.51 24.85 0.36	52 Phg 136 45.36 0.23 22.06 4.19 0.04	S1 ( <i>I</i> Chl 31 28.27 0.02 22.61 22.54 0.04	Ppeak)         Phg 18           Phg 18         C           48.40         0.11           30.56         3.31           2.29         C	PPU (CI           S1 (Tpc           bh 18         Pi           25.58         0.03           20.98         26.91           0.03         0.03	M21)           sak)         6           hg 13         Ch           50.22         3C           0.12         0           29.77         23           3.06         15           2.27         0	S2 1 12 Phg 0.67 55.2 0.3 0.21 0.67 28.30 0.87 3.48 0.3 0.03	7 28.6 0.2 5 22.9 22.1 0.5	S1 (P <sub>pec</sub> 15 Phg 5 2 4 0 3	GH (k) (11120 49.57 0.04 28.25 4.26 0.04	U (CM S1 Chi 48 P 28.19 0.03 22.15 21.70 0.63	<b>D50D)</b> ( <i>T</i> <sub>peak</sub> ) hg 124 50.58 0.06 29.18 4.00 0.05	Chl 43 28.21 0.04 19.08 22.51 0.60	52 Phg 322 50.08 0.04 29.03 3.61 0.03
Na20         0.02         0.17         0.02         0.03         0.02         0.07         0.03         0.18         0.05         0.04         0.01         0.01         0.03         0.01         0.03         0.01         0.01         0.03         0.01         0.01         0.03         0.01         0.02         0.01         0.02         0.01         0.02         0.01         0.02         0.01         0.02         0.01         0.02         0.01         0.02         0.01         0.02         0.01         0.02         0.01         0.02         0.01         0.02         0.01         0.02         0.01         0.02         0.01         0.02         0.01         0.02         0.01         0.02         0.01         0.02         0.01         0.02         0.01 <th< td=""><td>Sample Domain Analyse Wt% SiO<sub>2</sub> TiO<sub>2</sub> Al<sub>2</sub>O<sub>3</sub> FeO MnO MgO</td><td>Chl 75 Chl 75 25.7 0.03 19.6 24.4 0.42 14.9</td><td>1         (Ppeak)           7         Phg 269           7         50.81           0,27         8           20.86         7           4         3.17</td><td>CPU ( S1 Chl 85 1 27.22 0.03 5 22.35 23.58 0.36 13.21</td><td>CM22 (<i>T</i><sub>penk</sub>) 6 Phg 55 6 28.77 3.48 0.03 3.65</td><td>B) Chl 26 F 28.14 0.03 19.51 24.85 0.36 15.15</td><td>22 Phg 136 45.36 0.23 22.06 4.19 0.04 2.69</td><td>S1 (<i>I</i> Chl 31 28.27 0.02 22.61 22.54 0.04 13.99</td><td>Ppeak)         Phg 18         C           48.40         0.11         30.56         3.31           2.29         0.03         0.03         0.03</td><td>PPU (CI S1 (Tpc           S1 (Tpc           bhl 18         Ph           25.58         0.03           20.98         26.91           0.03         13.36</td><td>M21)           sak)         Ch           50.22         3C           0.12         0           29.77         23           3.06         15           2.27         0           0.03         13</td><td>S2 1 12 Phg 0.67 55.2 0.3 0.21 0.67 28.3 0.87 3.48 0.3 0.02 0.19 3.62</td><td>7 28.6 7 28.6 0.2 5 22.9 22.1 0.5 8 18.0</td><td>S1 (P<sub>per</sub> 5 Phg 5 2 4 0 3 3</td><td>GH (11120 49.57 0.04 28.25 4.26 0.04 3.19</td><td>U (CM S1 Chl 48 P 28.19 0.03 22.15 21.70 0.63 17.76</td><td><b>D50D)</b> (<i>T</i><sub>peak</sub>) hg 124 50.58 0.06 29.18 4.00 0.05 2.83</td><td>Chl 43 28.21 0.04 19.08 22.51 0.60 18.92</td><td>52 Phg 322 50.08 0.04 29.03 3.61 0.03 2.67</td></th<>	Sample Domain Analyse Wt% SiO <sub>2</sub> TiO <sub>2</sub> Al <sub>2</sub> O <sub>3</sub> FeO MnO MgO	Chl 75 Chl 75 25.7 0.03 19.6 24.4 0.42 14.9	1         (Ppeak)           7         Phg 269           7         50.81           0,27         8           20.86         7           4         3.17	CPU ( S1 Chl 85 1 27.22 0.03 5 22.35 23.58 0.36 13.21	CM22 ( <i>T</i> <sub>penk</sub> ) 6 Phg 55 6 28.77 3.48 0.03 3.65	B) Chl 26 F 28.14 0.03 19.51 24.85 0.36 15.15	22 Phg 136 45.36 0.23 22.06 4.19 0.04 2.69	S1 ( <i>I</i> Chl 31 28.27 0.02 22.61 22.54 0.04 13.99	Ppeak)         Phg 18         C           48.40         0.11         30.56         3.31           2.29         0.03         0.03         0.03	PPU (CI S1 (Tpc           S1 (Tpc           bhl 18         Ph           25.58         0.03           20.98         26.91           0.03         13.36	M21)           sak)         Ch           50.22         3C           0.12         0           29.77         23           3.06         15           2.27         0           0.03         13	S2 1 12 Phg 0.67 55.2 0.3 0.21 0.67 28.3 0.87 3.48 0.3 0.02 0.19 3.62	7 28.6 7 28.6 0.2 5 22.9 22.1 0.5 8 18.0	S1 (P <sub>per</sub> 5 Phg 5 2 4 0 3 3	GH (11120 49.57 0.04 28.25 4.26 0.04 3.19	U (CM S1 Chl 48 P 28.19 0.03 22.15 21.70 0.63 17.76	<b>D50D)</b> ( <i>T</i> <sub>peak</sub> ) hg 124 50.58 0.06 29.18 4.00 0.05 2.83	Chl 43 28.21 0.04 19.08 22.51 0.60 18.92	52 Phg 322 50.08 0.04 29.03 3.61 0.03 2.67
Kgo         6.00         7.13         6.02         6.02         7.30         6.00         6.00         7.01         1.12         6.02         6.01         7.03         6.01         7.03         6.01         7.03         6.01         7.03         6.01         7.03         6.01         7.03         6.02         1.02           tot.         85.57         86.77         86.8         97.28         88.09         82.57         88.24         93.83         87.04         94.64         88.66         99.32         92.58         95.36         90.55         96.75         89.49         95.91           Cations         2.97         3.86         3.04         3.62         3.13         3.69         3.10         3.48         2.91         3.56         3.29         3.60         3.02         3.54         3.04         3.54         3.1         3.55           Ti         -         0.02         -         0.01         -         0.01         -         0.01         0.02         -         0.01         2.54         1.89         2.41         2.01         2.33         0.34         2.44         3.65           Ki         0.33         2.64         0.24         2.76         0.34	Sample Domain Analyse Wt% SiO <sub>2</sub> TiO <sub>2</sub> Al <sub>2</sub> O <sub>3</sub> FeO MnO MgO CaO	Chl 75 Chl 75 25.7 0.03 19.6 24.4 0.42 14.9 0.01	I         (Ppenk)           7         Phg 269           7         50.81           0,27         8           20.86         7           4.30         0.02           4         3.17           0.04         0.04	CPU ( S1 Chl 85 1 27.22 0.03 5 22.35 23.58 0.36 13.21 0.01	CM22) ( <i>T</i> <sub>peak</sub> ) 6 Phg 55 6 Phg 55 0.18 28.77 3.48 0.03 3.65 0.01 0.01	B) Chl 26 F 28.14 0.03 19.51 24.85 0.36 15.15 0.01 0.02	52 Phg 136 45.36 0.23 22.06 4.19 0.04 2.69 0.03 0.03	S1 ( <i>I</i> Chl 31 28.27 0.02 22.61 22.54 0.04 13.99 0.04	P         Phg         I8         C           48.40         0.11         30.56         3.31         2.29         0.03         0.01	PU (Cl           S1 (Tpc           bl 18         Pi           25.58         0.03           20.98         26.91           0.03         13.36           0.04         0.04	M21)           sak)         Gradient Stress           hg 13         Ch           50.22         3C           0.12         0           29.77         23           3.06         15           2.27         0           0.03         13           0.01         0	S2 1 12 Phg 1.12 Phg 0.67 55.2 0.3 0.21 0.67 28.30 0.87 3.48 0.3 0.03 0.19 3.62 0.3 0.02 0.3 0.02	7 28.6 0.2 5 22.9 22.1 0.5 18.0 0.0	S1 (P <sub>per</sub> 15 Phg 5 2 4 0 3 4 3 4	GH (11120 49.57 0.04 28.25 4.26 0.04 3.19 0.05 0.05	U (CM S1 Chl 48 P 28.19 0.03 22.15 21.70 0.63 17.76 0.05	D50D)           (Tpeak)           hg 124           50.58           0.06           29.18           4.00           0.05           2.83           0.07           0.11	Chl 43 28.21 0.04 19.08 22.51 0.60 18.92 0.09	52 Phg 322 50.08 0.04 29.03 3.61 0.03 2.67 0.05
Cations         Coto	Sample Domain Analyse Wt% SiO <sub>2</sub> TiO <sub>2</sub> Al <sub>2</sub> O <sub>3</sub> FeO MnO MgO CaO Na <sub>2</sub> O	Chl 75 Chl 75 25.7 0.03 19.6 24.4 0.42 14.9 0.01 0.01 0.02	I         (Ppenk)           7         Phg 269           7         50.81           0,27         3           20.86         7           4.30         0.02           4         3.17           0.04         0.04           0.017         7	CPU ( S1 Chl 85 Chl 85 1 27.22 0.03 5 22.35 23.58 0.36 13.21 0.01 0.02 0.02	CM22) ( <i>T</i> peak) 6 Phg 55 52.92 0.18 28.77 3.48 0.03 3.65 0.01 0.03 8.21	B) Chl 26 F 28.14 0.03 19.51 24.85 0.36 15.15 0.01 0.02 0.02	22 Phg 136 45.36 0.23 22.06 4.19 0.04 2.69 0.03 0.07 7.00	S1 ( <i>I</i> Chl 31 28.27 0.02 22.61 22.54 0.04 13.99 0.04 0.05 0.68	Ppeak)         Phg 18 C           48.40         0           0.11         30.56           3.31         2.29           0.03         0.01           0.14         % 9%	PU (Cl           S1 (Tpc           bl 18         Pl           25.58         0.03           20.98         26.91           0.03         13.36           0.04         0.05	M21)           sak)         Ghg 13           50.22         3C           0.12         0           29.77         23           3.06         15           2.27         0           0.03         13           0.01         0           0.15         0	S2 1 12 Phg 1.67 55.2 0.3 0.21 3.67 28.3 0.87 3.48 0.3 0.03 0.19 3.62 0.3 0.02 0.3 0.02	5         Chl 2414           7         28.6           0.27         0.27           5         22.9           22.1         0.58           18.0         0.00           0.01         0.00	S1 (P <sub>pes</sub> i5 Phg 5 2 4 0 3 4 1 1	GH (k) (11120 49.57 0.04 28.25 4.26 0.04 3.19 0.05 0.11 0.985	U (CM S1 Chl 48 P 28.19 0.03 22.15 21.70 0.63 17.76 0.05 0.03 0.01	<b>D50D)</b> ( <i>T</i> <sub>peak</sub> ) hg 124 50.58 0.06 29.18 4.00 0.05 2.83 0.07 0.11 0.87	Chl 43 28.21 0.04 19.08 22.51 0.60 18.92 0.09 0.02	52 Phg 322 50.08 0.04 29.03 3.61 0.03 2.67 0.05 0.12 10.28
Si         2.97         3.86         3.04         3.62         3.13         3.69         3.10         3.48         2.91         3.56         3.29         3.69         3.02         3.54         3.04         3.54         3.1         3.55           Ti         -         0.02         -         0.01         -         0.01         -         0.01         -         0.01         0.01         -         0.01         0.02         -         0.01         0.01         -         0.01         0.01         0.01         0.01         0.01         0.01         0.01         0.01         0.01         0.01         0.01         0.01         0.01         0.01         0.01         0.01         0.01         0.01 </td <td>Sample Domain Analyse Wt% SiO<sub>2</sub> TiO<sub>2</sub> Al<sub>2</sub>O<sub>3</sub> FeO MnO MgO CaO Na<sub>2</sub>O K<sub>2</sub>O tot.</td> <td>Chl 75 Chl 75 25.7 0.03 19.6 24.4 0.42 14.9 0.01 0.02 0.05 85.5</td> <td>I         (Ppenk)           7         Phg 269           7         50.81           0,27         8           20.86         7           4.30         0.02           4         3.17           0.04         0.17           7         7.13           7         86.77</td> <td>CPU ( S1 Chl 85 Chl 85 1 27.22 0.03 5 22.35 23.58 0.36 13.21 0.01 0.02 0.02 7 86.8</td> <td>CM22 (<i>T</i><sub>peak</sub>) 6 Phg 55 6 Phg 55 52.92 0.18 28.77 3.48 0.03 3.65 0.01 0.03 8.21 97.28</td> <td>B) Chl 26 F 28.14 0.03 19.51 24.85 0.36 15.15 0.01 0.02 0.02 88.09</td> <td>52 Phg 136 45.36 0.23 22.06 4.19 0.04 2.69 0.03 0.07 7.90 82.57</td> <td>S1 (<i>I</i> Chl 31 28.27 0.02 22.61 22.54 0.04 13.99 0.04 0.05 0.68 88.24</td> <td>Ppeak)         Phg 18           Phg 18         0           48.40         0           0.11         3           30.56         3.31           2.29         0           0.03         0           0.14         8.98           93.83         9</td> <td>PU (Cl           S1 (Tpc           bl 18         Pi           25.58         0.03           20.98         26.91           0.03         13.36           0.04         0.05           0.06         87.04</td> <td>M21)           sak)         6           hg 13         Ch           50.22         3C           0.12         0           29.77         23           3.06         15           2.27         0           0.03         13           0.01         0           9.01         1.           94.64         88</td> <td>S2 1 12 Phg 0.67 55.2 0.3 0.21 0.67 28.3 0.87 3.48 0.3 0.03 0.19 3.62 0.3 0.02 0.3 0.02 0.3 0.02 0.5 0.04 12 8.25 0.66 99.3</td> <td>7 28.6 7 28.6 0.2 5 22.9 22.1 0.5 18.0 0.0 0.0 0.0 2 92.5</td> <td>S1 (P<sub>pea</sub> 15 Phg 5 2 4 0 3 4 1 1 8</td> <td>GHI (11120 (11120 (11120 (11120 (11120 (1120) (</td> <td>U (CM S1 Chl 48 P 28.19 0.03 22.15 21.70 0.63 17.76 0.05 0.03 0.01 90.55</td> <td><b>D50D)</b> (<i>T</i><sub>peak</sub>) hg 124 50.58 0.06 29.18 4.00 0.05 2.83 0.07 0.11 9.87 96.75</td> <td>Ch1 43 28.21 0.04 19.08 22.51 0.60 18.92 0.09 0.02 0.02 89.49</td> <td>52 50.08 0.04 29.03 3.61 0.03 2.67 0.05 0.12 10.28 95.91</td>	Sample Domain Analyse Wt% SiO <sub>2</sub> TiO <sub>2</sub> Al <sub>2</sub> O <sub>3</sub> FeO MnO MgO CaO Na <sub>2</sub> O K <sub>2</sub> O tot.	Chl 75 Chl 75 25.7 0.03 19.6 24.4 0.42 14.9 0.01 0.02 0.05 85.5	I         (Ppenk)           7         Phg 269           7         50.81           0,27         8           20.86         7           4.30         0.02           4         3.17           0.04         0.17           7         7.13           7         86.77	CPU ( S1 Chl 85 Chl 85 1 27.22 0.03 5 22.35 23.58 0.36 13.21 0.01 0.02 0.02 7 86.8	CM22 ( <i>T</i> <sub>peak</sub> ) 6 Phg 55 6 Phg 55 52.92 0.18 28.77 3.48 0.03 3.65 0.01 0.03 8.21 97.28	B) Chl 26 F 28.14 0.03 19.51 24.85 0.36 15.15 0.01 0.02 0.02 88.09	52 Phg 136 45.36 0.23 22.06 4.19 0.04 2.69 0.03 0.07 7.90 82.57	S1 ( <i>I</i> Chl 31 28.27 0.02 22.61 22.54 0.04 13.99 0.04 0.05 0.68 88.24	Ppeak)         Phg 18           Phg 18         0           48.40         0           0.11         3           30.56         3.31           2.29         0           0.03         0           0.14         8.98           93.83         9	PU (Cl           S1 (Tpc           bl 18         Pi           25.58         0.03           20.98         26.91           0.03         13.36           0.04         0.05           0.06         87.04	M21)           sak)         6           hg 13         Ch           50.22         3C           0.12         0           29.77         23           3.06         15           2.27         0           0.03         13           0.01         0           9.01         1.           94.64         88	S2 1 12 Phg 0.67 55.2 0.3 0.21 0.67 28.3 0.87 3.48 0.3 0.03 0.19 3.62 0.3 0.02 0.3 0.02 0.3 0.02 0.5 0.04 12 8.25 0.66 99.3	7 28.6 7 28.6 0.2 5 22.9 22.1 0.5 18.0 0.0 0.0 0.0 2 92.5	S1 (P <sub>pea</sub> 15 Phg 5 2 4 0 3 4 1 1 8	GHI (11120 (11120 (11120 (11120 (11120 (1120) (	U (CM S1 Chl 48 P 28.19 0.03 22.15 21.70 0.63 17.76 0.05 0.03 0.01 90.55	<b>D50D)</b> ( <i>T</i> <sub>peak</sub> ) hg 124 50.58 0.06 29.18 4.00 0.05 2.83 0.07 0.11 9.87 96.75	Ch1 43 28.21 0.04 19.08 22.51 0.60 18.92 0.09 0.02 0.02 89.49	52 50.08 0.04 29.03 3.61 0.03 2.67 0.05 0.12 10.28 95.91
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	Sample Domain Analyse Wt% SiO <sub>2</sub> TiO <sub>2</sub> Al <sub>2</sub> O <sub>3</sub> FeO MnO MgO CaO Na <sub>2</sub> O K <sub>2</sub> O tot.	Chl 75 Chl 75 25.7 0.03 19.6 24.4 0.42 14.9 0.01 0.02 0.05 85.5	I         (Ppenk)           7         Phg 269           7         50.81           0,27         8           20.86         7           4.30         0.02           4         3.17           0.04         0.17           7         86.77	CPU ( S1 Chl 85 Chl 85 1 27.22 0.03 5 22.35 23.58 0.36 13.21 0.01 0.02 0.02 7 86.8	CM22) ( <i>T</i> <sub>peak</sub> ) 6 Phg 55 6 28.77 3.48 0.03 3.65 0.01 0.03 8.21 97.28	B) Chl 26 F 28.14 0.03 19.51 24.85 0.36 15.15 0.01 0.02 0.02 88.09	52 Phg 136 45.36 0.23 22.06 4.19 0.04 2.69 0.03 0.07 7.90 82.57	S1 ( <i>I</i> Chl 31 28.27 0.02 22.61 22.54 0.04 13.99 0.04 0.05 0.68 88.24	Ppeak)         Phg 18           Phg 18         0           48.40         0           0.11         30.56           3.31         0           2.29         0.03           0.01         0           0.14         8.98           93.83         0	PU (Cl           S1 (Tpc           bl 18         Pi           25.58         0.03           20.98         26.91           0.03         13.36           0.04         0.05           0.06         87.04	M21)           sak)         G           hg 13         Ch           50.22         3C           0.12         0           29.77         23           3.06         15           2.27         0           0.03         13           0.01         0           0.15         0           9.01         1           94.64         88	S2           112         Phg           0.67         55.2           0.3         0.21           0.67         28.30           0.87         3.48           0.3         0.02           0.119         3.62           0.03         0.02           0.03         0.02           0.05         0.04           1.12         8.25           3.66         99.3	7 28.6 7 28.6 7 28.7 22.9 22.1 0.5 18.0 0.0 0.0 0.0 2 92.5	S1 (Pper 15 Phg 5 2 4 0 3 4 1 1 8	GH (11120 (11120 (49.57 0.04 28.25 (4.26 0.04 3.19 0.05 0.11 9.85 95.36	U (CM S1 Chl 48 P 28.19 0.03 22.15 21.70 0.63 17.76 0.05 0.03 0.01 90.55	D50D)           (Tpeak)           hg 124           50.58           0.06           29.18           4.00           0.05           2.83           0.07           0.11           9.87           96.75	Chl 43           28.21           0.04           19.08           22.51           0.60           18.92           0.09           0.02           89.49	52 Phg 322 50.08 0.04 29.03 3.61 0.03 2.67 0.05 0.12 10.28 95.91
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $	Sample Domain Analyse Wt% SiO <sub>2</sub> TiO <sub>2</sub> Al <sub>2</sub> O <sub>3</sub> FeO MnO MgO CaO Na <sub>2</sub> O K <sub>2</sub> O tot. <b>Cations</b> Si	Chl 75 Chl 75 25.7 0.03 19.6 24.4 0.42 14.9 0.01 0.02 0.05 85.5 2.07	1         (Ppenk)           7         Phg 269           7         50.81           0,27         8           20.86         7           4.30         0.02           4         3.17           0.04         0.17           7         86.77	CPU ( S1 Chl 85 Chl 85 1 27.22 0.03 5 22.35 23.58 0.36 13.21 0.01 0.02 0.02 7 86.8	CM22) ( <i>T</i> <sub>peak</sub> ) 6 Phg 55 6 Phg 55 0.18 28.77 3.48 0.03 3.65 0.01 0.03 8.21 97.28	B) Chl 26 F 28.14 0.03 19.51 24.85 0.36 15.15 0.01 0.02 0.02 88.09	52 Phg 136 45.36 0.23 22.06 4.19 0.04 2.69 0.03 0.07 7.90 82.57	S1 ( <i>I</i> Chl 31 28.27 0.02 22.61 22.54 0.04 13.99 0.04 0.05 0.68 88.24	Ppeak)         Phg 18           Phg 18         C           48.40         0.11           30.56         3.31           2.29         0.03           0.01         0.14           8.98         93.83	PU (CI S1 ( <i>T</i> <sub>pc</sub> ) <i>hl 18 Pi</i> 25.58 0.03 20.98 26.91 0.03 13.36 0.04 0.05 0.06 87.04	M21)           sak)         G           hg 13         Ch           50.22         3C           0.12         0           29.77         23           3.06         15           2.27         0           0.03         13           0.01         0           0.15         0           9.01         1.           94.64         88	S2 <i>il 12 Phg</i> <i>il 23</i> <i>il 12 Phg</i> <i>il 24</i> <i>il 24</i>	7 28.6 7 28.6 0.2 5 22.9 22.1 0.5 18.0 0.0 0.0 0.0 2 92.5 3.0	S1 (P <sub>pes</sub> 15 Phg 5 2 4 0 3 1 1 8 2 2 4 2 2 4 2 2 4 2 2 4 2 2 4 2 2 4 2 2 4 2 2 4 2 2 4 2 2 4 2 2 4 2 2 2 4 4 2 2 2 4 4 2 2 2 2 4 4 2 2 2 2 2 2 2 2 2 2 2 2 2	GH (k) (11120 49.57 0.04 28.25 4.26 0.04 3.19 0.05 0.11 9.85 95.36 3.54	U (CM S1 Chl 48 P 28.19 0.03 22.15 21.70 0.63 17.76 0.05 0.03 0.01 90.55	<b>D50D)</b> ( <i>T</i> <sub>peak</sub> ) hg 124 50.58 0.06 29.18 4.00 0.05 2.83 0.07 0.11 9.87 96.75 96.75	Chl 43 28.21 0.04 19.08 22.51 0.60 18.92 0.09 0.02 0.02 89.49	52 Phg 322 50.08 0.04 29.03 3.61 0.03 2.67 0.05 0.12 10.28 95.91
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $	Sample Domain Analyse Wt% SiO <sub>2</sub> TiO <sub>2</sub> Al <sub>2</sub> O <sub>3</sub> FeO MnO MgO CaO Na <sub>2</sub> O K <sub>2</sub> O tot. <b>Cations</b> Si Ti	Chl 75 Chl 75 25.7 0.03 19.6 24.4 0.42 14.9 0.01 0.02 0.05 85.5 2.97	I         (Ppenk)           7         Phg 269           7         50.81           0,27         3           8         20.86           7         4.30           0         0.02           4         3.17           0.044         3.17           7         86.77           7         86.77           3.866         0.02	CPU ( S1 Chl 85 Chl 85 1 27.22 0.03 5 22.35 23.58 0.36 13.21 0.01 0.02 0.02 7 86.8 3.04	CM22) ( <i>T</i> <sub>peak</sub> ) 6 Phg 55 52.92 0.18 28.77 3.48 0.03 3.65 0.01 0.03 8.21 97.28 3.62 0.01	B) Chl 26 F 28.14 0.03 19.51 24.85 0.36 15.15 0.01 0.02 0.02 88.09 3.13 -	52 Phg 136 45.36 0.23 22.06 4.19 0.04 2.69 0.03 0.07 7.90 82.57 3.69 0.02	S1 ( <i>I</i> Chl 31 28.27 0.02 22.61 22.54 0.04 13.99 0.04 0.05 0.68 88.24 3.10	Ppeak)         Phg 18           48.40         0           0.11         30.56           3.31         2.29           0.03         0.01           0.14         8.98           93.83         3.48           0.01         0.01	PU (CI S1 ( <i>T</i> <sub>pc</sub> ) <i>hl 18 Pl</i> 25.58 0.03 20.98 26.91 0.03 13.36 0.04 0.05 0.06 87.04 2.91	M21)           sak)         G           bg 13         Ch           50.22         3C           0.12         0           29.77         23           3.06         15           2.27         0           0.03         13           0.01         0           0.15         0           9.01         1.           94.64         88           3.56         3.           0.01         0	S2 1 12 Phg 1.67 55.2 0.3 0.21 0.67 28.3 0.67 28.3 0.67 28.3 0.67 28.3 0.67 28.3 0.67 28.3 0.67 28.3 0.67 28.3 0.67 28.3 0.67 3.48 0.63 0.02 0.63 0.02 0.63 0.02 0.65 0.04 1.12 8.25 0.66 99.3 0.65 0.04 1.12 8.25 0.66 99.3 0.65 0.04 0.65 0.04	5         Chl 2414           7         28.6           0.22         0.22           5         22.9           22.1         0.58           18.0         0.00           0.00         0.00           22.5         3.00	S1 (Ppec 15 Phg 5 2 4 0 3 4 1 1 8 2 2 2 2	GH (k) (11120 49.57 0.04 28.25 4.26 0.04 3.19 0.05 0.11 9.85 95.36 3.54 -	U (CM S1 Chl 48 P 28.19 0.03 22.15 21.70 0.63 17.76 0.05 0.03 0.01 90.55 3.04	<b>D50D)</b> ( <i>T</i> <sub>peak</sub> ) hg 124 50.58 0.06 29.18 4.00 0.05 2.83 0.07 0.11 9.87 96.75 -	Chl 43 28.21 0.04 19.08 22.51 0.60 18.92 0.09 0.02 0.02 89.49 3.1	S2 Phg 322 50.08 0.04 29.03 3.61 0.03 2.67 0.05 0.12 10.28 95.91 3.55
Mn         0.05         -         0.04         -         0.04         -         -         0.16         -         0.16         -         0.06         -         0.07         0.07         -         0.07         -           Mg         1.72         0.24         1.48         0.25         1.68         0.22         1.54         -         1.52         -         1.41         0.24         1.90         0.23         1.92         0.20         2.08         0.19           Ca         -         -         1.52         -         1.41         0.24         1.90         0.23         1.92         0.20         2.08         0.19           Ma         -         0.01         -         -         1.52         -         1.41         0.24         1.90         0.23         1.92         0.20         2.08         0.19           Ca         -         0.01         0.1         0.01         0.01         0.01         0.01         0.01         0.1         0.1         0.1         0.1         0.1         0.1         0.1         1.1         0.1         0.1         0.1         0.1         1.1         0.1         0.1         0.1         0.1         1.1	Sample Domain Analyse Wt% SiO <sub>2</sub> TiO <sub>2</sub> Al <sub>2</sub> O <sub>3</sub> FeO MnO MgO CaO Na <sub>2</sub> O K <sub>2</sub> O tot. <b>Cations</b> Si Ti Al	Ch1 75 Ch1 75 25.7 0.03 19.6 24.4 0.42 14.9 0.01 0.02 0.05 85.5 2.97 - - 2.29	I         (Ppenk)           7         Phg 269           7         50.81           0,27         8           20.86         7           4         3.17           0.04         0.17           4         3.17           7         86.77           3         3.86           0.02         1.59	CPU ( S1 Chl 85 Chl 85 1 27.22 0.03 5 22.35 23.58 0.36 13.21 0.01 0.02 0.02 7 86.8 3.04 - 2.50	CM22) ( <i>T</i> <sub>peak</sub> ) 6 Phg 55 52.92 0.18 28.77 3.48 0.03 3.65 0.01 0.03 8.21 97.28 3.62 0.01 1.97	B) Chl 26 F 28.14 0.03 19.51 24.85 0.36 15.15 0.01 0.02 0.02 88.09 3.13 - 2.17	52 Phg 136 45.36 0.23 22.06 4.19 0.04 2.69 0.03 0.07 7.90 82.57 3.69 0.02 1.79	S1 ( <i>I</i> Chl 31 28.27 0.02 22.61 22.54 0.04 13.99 0.04 0.05 0.68 88.24 3.10 - 2.48	Ppeak)         Phg 18         Phg 18<	PU (CI S1 ( <i>T</i> <sub>pc</sub> <i>hl 18 Pl</i> 25.58 0.03 20.98 26.91 0.03 13.36 0.04 0.05 0.06 87.04 2.91 - 2.39	M21)           sak)         General           bg 13         Ch           50.22         3C           0.12         0           29.77         23           3.06         15           2.27         0           0.03         13           0.01         0           0.15         0           9.01         1           94.64         88           3.56         3           0.01         2	S2           1/12         Phg           0.67         55.2           0.3         0.21           0.67         28.3           0.67         28.3           0.87         3.48           0.3         0.03           0.3         0.03           0.5         0.44           12         8.25           3.66         99.3           29         3.66           -         0.01           .54         1.88	5         Chl 2414           7         28.6           0.22         0.5           22.1         0.54           18.0         0.04           0.00         0.00           22.5         3.00           0.04         0.00           22.2         0.54	S1 (Ppea 15 Phg 5 2 4 0 3 4 1 1 8 2 2 1	GH (11120 49.57 0.04 28.25 4.26 0.04 3.19 0.05 0.11 9.85 95.36 3.54 - 2.01	U (CM S1 Ch1 48 P 28.19 0.03 22.15 21.70 0.63 17.76 0.05 0.03 0.01 90.55 3.04 - 2.39	<b>D50D)</b> ( <i>T</i> <sub>peak</sub> ) hg 124 50.58 0.06 29.18 4.00 0.05 2.83 0.07 0.11 9.87 96.75 3.54 - 2.04	Ch1 43 28.21 0.04 19.08 22.51 0.60 18.92 0.09 0.02 0.02 89.49 3.1 - 2.10	S2 Phg 322 50.08 0.04 29.03 3.61 0.03 2.67 0.05 0.12 10.28 95.91 3.55 - 2.06
Mg       1.72       0.24       1.48       0.25       1.68       0.22       1.54       -       1.52       -       1.41       0.24       1.90       0.23       1.92       0.20       2.08       0.19         Ca       -       -       -       -       -       0.01       0.01       0.01       0.01       0.01       -       -       -       0.01       -       -       0.01       -       -       -       0.01       -       -       -       0.01       -       -       -       0.01       -       -       -       0.01       -       -       -       0.01       -       -       -       0.01       -       -       -       0.01       -       -       -       0.01       -       -       -       0.01       -       -       -       0.01       -       -       0.01       -       -       0.01       -       -       -       -       -       -       -       -       -       -       0.01       0.01       0.01       0.01       0.01       0.01       0.01       -       0.01       -       0.01       -       -       -       0.01       0.01       0.0	Sample Domain Analyse Wt% SiO <sub>2</sub> TiO <sub>2</sub> Al <sub>2</sub> O <sub>3</sub> FeO MnO MgO CaO Na <sub>2</sub> O K <sub>2</sub> O tot. Cations Si Ti Al Fe <sup>2+</sup>	Chl 75 Chl 75 25.7 0.03 19.6 24.4 0.42 14.9 0.01 0.02 0.05 85.5 2.97 - 2.29 2.83	I         (Ppeak)           7         Phg 269           7         50.81           0.27         8           20.86         7           7         4.30           7         4.30           0.02         0.02           4         3.17           0.04         0.17           7         86.77           7         86.77           0.02         1.59           0.33         0.33	CPU ( S1 Chl 85 1 27.22 0.03 5 22.35 23.58 0.36 13.21 0.01 0.02 0.02 7 86.8 3.04 - 2.50 2.64	CM22) ( <i>T</i> <sub>peak</sub> ) 6 Phg 55 52.92 0.18 28.77 3.48 0.03 3.65 0.01 0.03 8.21 97.28 3.62 0.01 1.97 0.24	B) Ch1 26 F 28.14 0.03 19.51 24.85 0.36 15.15 0.01 0.02 0.02 88.09 3.13 - 2.17 2.76	52 Phg 136 45.36 0.23 22.06 4.19 0.04 2.69 0.03 0.07 7.90 82.57 3.69 0.02 1.79 0.34	S1 ( <i>I</i> Chl 31 28.27 0.02 22.61 22.54 0.04 13.99 0.04 0.05 0.68 88.24 3.10 - 2.48 2.47	Ppeak) Phg 18 C 48.40 0.11 30.56 3.31 2.29 0.03 0.01 0.14 8.98 93.83 3.48 0.01 2.20 0.24	PU (C) S1 ( <i>T</i> <sub>pc</sub> <i>hl 18 Pl</i> 25.58 0.03 20.98 26.91 0.03 13.36 0.04 0.05 0.06 87.04 2.91 - 2.39 3.06	M21)           sak)         6           bg 13         Ch           50.22         3C           0.12         0           29.77         23           3.06         15           2.27         0           0.03         13           0.01         0           9.01         1.           94.64         88           3.56         3.           0.01         2.11           2.22         2	S2           112         Phg           0.67         55.2           0.3         0.21           0.67         28.3           0.87         3.48           0.3         0.03           0.87         3.48           0.3         0.03           0.3         0.02           0.3         0.02           0.5         0.04           12         8.25           2.9         3.65           -         0.01           .54         1.89           1.3         0.23	7 28.6 7 28.6 0.2 5 Chl 2414 7 28.6 0.2 5 22.9 22.1 18.0 18.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	S1 (Ppea 15 Phg 5 2 4 0 3 4 1 1 8 2 2 1 3 1 3	GH (11120 49.57 0.04 28.25 4.26 0.04 3.19 0.05 0.11 9.85 95.36 3.54 - 2.01 0.3	U (CM S1 Ch1 48 P 28.19 0.03 22.15 21.70 0.63 17.76 0.05 0.03 0.01 90.55 3.04 - 2.39 2.34	<b>D50D)</b> ( <i>T</i> <sub>peak</sub> ) hg 124 50.58 0.06 29.18 4.00 0.05 2.83 0.07 0.11 9.87 96.75 - 3.54 - 2.04 0.28	Chl 43           28.21           0.04           19.08           22.51           0.60           18.92           0.09           0.02           89.49           3.1           -           2.10           2.48	S2 Phg 322 50.08 0.04 29.03 3.61 0.03 2.67 0.05 0.12 10.28 95.91 3.55 - 2.06 0.26
Ca       -       -       -       -       0.01       0.01       0.01       0.01       -       -       -       0.01       -       0.01       -       0.01       -       0.01       -       0.01       -       0.01       -       0.01       -       -       0.01       0.01       0.	Sample Domain Analyse Wt% SiO <sub>2</sub> TiO <sub>2</sub> Al <sub>2</sub> O <sub>3</sub> FeO MnO MgO CaO Na <sub>2</sub> O K <sub>2</sub> O tot. Cations Si Ti Al Fe <sup>2+</sup> Mn	Chl 75 Chl 75 25.7 0.03 19.6 24.4 0.42 14.9 0.01 0.02 0.05 85.5 2.97 - 2.29 2.83 0.05	I         (Ppenk)           7         Phg 269           7         50.81           0.27         8           20.86         7           7         4.30           7         4.30           7         4.30           4         3.17           0.04         0.17           7         86.77           7         86.77           0.02         1.59           0.33         -	CPU ( S1 Chl 85 Chl 85 1 27.22 0.03 5 22.35 23.58 0.36 13.21 0.01 0.02 0.02 7 86.8 3.04 - 2.50 2.64 0.04	CM22 ( <i>T</i> <sub>peak</sub> ) 6 Phg 55 52.92 0.18 28.77 3.48 0.03 3.65 0.01 0.03 8.21 97.28 3.62 0,01 1.97 0.24 -	B) Ch1 26 F 28.14 0.03 19.51 24.85 0.36 15.15 0.01 0.02 0.02 88.09 3.13 - 2.17 2.76 0.04	22 Phg 136 45.36 0.23 22.06 4.19 0.04 2.69 0.03 0.07 7.90 82.57 3.69 0.02 1.79 0.34	S1 ( <i>I</i> Chl 31 28.27 0.02 22.61 22.54 0.04 13.99 0.04 0.05 0.68 88.24 3.10 - 2.48 2.47 -	Ppeak) Phg 18 C 48.40 0.11 30.56 3.31 2.29 0.03 0.01 0.14 8.98 93.83 3.48 0.01 2.20 0.24 0.16	PU (C) S1 ( <i>T</i> <sub>pc</sub> <i>hl 18 Pl</i> 25.58 0.03 20.98 26.91 0.03 13.36 0.04 0.05 0.06 87.04 2.91 - 2.39 3.06 -	M21)           sak)         6           hg 13         Ch           50.22         3C           0.12         0           29.77         23           3.06         15           2.27         0           0.03         13           0.01         0           0.015         0           9.01         1.           94.64         88           3.56         3           0.01         2           2.11         2           0.16         16	S2           112         Phg           0.67         55.2           0.3         0.21           0.67         28.3           0.87         3.48           0.3         0.02           0.3         0.03           0.67         55.2           0.3         0.03           0.3         0.02           0.3         0.02           0.3         0.02           0.5         0.04           12         8.25           3.66         99.3           229         3.68           -         0.01           54         1.85           1.3         0.23           -         -	7 28.6 7 28.6 0.2 5 Chl 2414 7 28.6 0.2 5 22.9 22.1 0.5 18.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	S1 (Ppea 5 Phg 5 2	GHI (11120 49.57 0.04 28.25 4.26 0.04 3.19 0.05 0.11 9.85 95.36 3.54 - 2.01 0.3 -	U (CM S1 Ch1 48 P 28.19 0.03 22.15 21.70 0.63 17.76 0.05 0.03 0.01 90.55 3.04 - 2.39 2.34 0.07	<b>D50D)</b> ( <i>T</i> peak) hg 124 50.58 0.06 29.18 4.00 0.05 2.83 0.07 0.11 9.87 96.75 3.54 - 2.04 0.28 -	Ch1 43 28.21 0.04 19.08 22.51 0.60 18.92 0.09 0.02 0.02 89.49 3.1  2.10 2.48 0.07	S2 Phg 322 50.08 0.04 29.03 3.61 0.03 2.67 0.05 0.12 10.28 95.91 3.55 - 2.06 0.26 -
Na         -         0,01         -         -         -         0.07         0.65         0.01         0.64         0.12         0.55         -         0.01         -         0.01         -         -         -           K         0.01         0.54         -         0.56         -         0.64         3.10         3.48         2.91         3.56         3.29         3.69         -         0.77         -         0.69         -         0.73           sum ox         14         11         14	Sample Domain Analyse Wt% SiO <sub>2</sub> TiO <sub>2</sub> Al <sub>2</sub> O <sub>3</sub> FeO MnO MgO CaO Na <sub>2</sub> O K <sub>2</sub> O tot. Cations Si Ti Al Fe <sup>2+</sup> Mn	Chl 75 25.7 0.03 19.6 24.4 0.42 14.9 0.01 0.02 0.05 85.5 2.97 - 2.29 2.83 0.05 1.72	1         (Ppeak)           7         Phg 269           7         50.81           0,27         8           20.86         7           8         20.86           7         4.30           7         4.30           6         0.02           4         3.17           0.04         0.17           7         86.77           7         86.77           0.386         0.02           1         1.59           0.33            0.24         0.24	CPU ( S1 Chl 85 Chl 85 1 27.22 0.03 5 22.35 23.58 0.36 13.21 0.01 0.02 0.02 7 86.8 3.04 - 2.50 2.64 0.04 1.48	CM22 ( <i>T</i> <sub>peak</sub> ) 6 Phg 55 6 Phg 55 6 28.77 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	B) Chl 26 F 28.14 0.03 19.51 24.85 0.36 15.15 0.01 0.02 0.02 88.09 3.13 - 2.17 2.76 0.04 1.68	22 24 24 25 22 22 22 22 22 22 22 22 22	S1 ( <i>I</i> Chl 31 28.27 0.02 22.61 22.54 0.04 13.99 0.04 0.05 0.68 88.24 3.10 - 2.48 2.47 - 1.54	Ppeak) Phg 18 C 48.40 0.11 30.56 3.31 2.29 0.03 0.01 0.14 8.98 93.83 93.83 0.01 2.20 0.24 0.16 	PU (Cl S1 ( <i>T</i> <sub>pc</sub> ) <i>hl 18 Pi</i> 25.58 0.03 20.98 26.91 0.03 13.36 0.04 0.05 0.06 87.04 2.91 - 2.91 - 2.39 3.06 - 1.52	M21)           sak)         6           50.22         3C           0.12         0           29.77         23           3.06         15           2.27         0           0.03         13           0.01         0           0.03         13           0.01         0           9.01         1.           94.64         88           0.01         2.11           2.22         2           0.16         -	S2           112         Phg           0.67         55.2           0.3         0.21           6.67         28.3           0.87         3.48           0.3         0.03           1.19         3.62           0.05         0.04           1.2         8.25           3.66         99.3           -         0.01           54         1.88           1.3         0.23           -         -           41         0.24	7         28.6           7         28.6           0.22         9           5         22.9           22.1         0.51           18.0         0.00           0.00         0.00           22.5         3.00           3.00         0.00           2.2.4         2.33           0.00         1.90	S1 (Ppca 15 Phg 15 Phg 15 2 4 0 3 1 4 1 1 1 8 1 2 2 1 1 3 1 5 0 0 1 1 1 1 1 1 1 1 1 1 1 1 1 1	GHI (11120 (11120 (11120 (11120 (11120 (128.25) (128.25) (	U (CM S1 Chl 48 P 28.19 0.03 22.15 21.70 0.63 17.76 0.05 0.03 0.01 90.55 3.04 - 2.39 2.34 0.07 1.92	<b>D50D)</b> ( <i>T</i> <sub>peak</sub> ) hg 124 50.58 0.06 29.18 4.00 0.05 2.83 0.07 0.11 9.87 96.75 3.54 - 2.04 0.28 - 0.20	Ch1 43 28.21 0.04 19.08 22.51 0.60 18.92 0.09 0.02 0.02 89.49 3.1 - 2.10 2.48 0.07 2.08	52 Phg 322 50.08 0.04 29.03 3.61 0.03 2.67 0.05 0.12 10.28 95.91 3.55 - 2.06 0.26 - 0.19
K         0.01         0.54         -         0.56         -         0.64         3.10         3.48         2.91         3.56         3.29         3.69         -         0.07         -         0.69         -         0.73           sum ox         14         11         14	Sample Domain Analyse Wt% SiO <sub>2</sub> TiO <sub>2</sub> Al <sub>2</sub> O <sub>3</sub> FeO MnO MgO CaO Na <sub>2</sub> O K <sub>2</sub> O tot. Cations Si Ti Al Fe <sup>2+</sup> Mn Mg Ca	Chl 75 Chl 75 25.7 0.03 19.6 24.4 0.42 14.9 0.01 0.02 0.05 85.5 2.97 - 2.29 2.83 0.05 1.72 2.4 3 0.05	1         (Ppenk)           7         Phg 269           7         50.81           0,27         3           8         20.86           7         4.30           6         0.02           4         3.17           0.044         3.17           7         86.77           7         86.77           7         86.77           9         0.33           1            1         0.24           2         0.24	CPU ( S1 Chl 85 Chl 85 1 27.22 0.03 5 22.35 23.58 0.36 13.21 0.01 0.02 0.02 0.02 7 86.8 3.04 - 2.50 2.64 0.04 1.48 	CM22) ( <i>T</i> <sub>peak</sub> ) 6 Phg 55 52.92 0.18 28.77 3.48 0.03 3.65 0.01 0.03 8.21 97.28 3.62 0,01 1.97 0.24 - 0.25 -	B) Chl 26 F 28.14 0.03 19.51 24.85 0.36 15.15 0.01 0.02 0.02 88.09 3.13 - 2.17 2.76 0.04 1.68 - -	52 Phg 136 45.36 0.23 22.06 4.19 0.04 2.69 0.03 0.07 7.90 82.57 3.69 0.02 1.79 0.34 - 0.22 -	S1 ( <i>I</i> Chl 31 28.27 0.02 22.61 22.54 0.04 13.99 0.04 0.05 0.68 88.24 3.10 - 2.48 2.47 - 1.54 0.01	Ppeak)         Phg 18           Phg 18         0           48.40         0           0.11         1           30.56         3.31           2.29         0           0.03         0           0.01         1           8.98         1           93.83         1           2.20         0           0.44         1           9.84         0           0.24         0           0.24         0           0.01         1           0.24         0           0.01         1	PU (Cl S1 ( <i>T</i> <sub>pc</sub> <i>bl</i> 18 <i>Pl</i> 25.58 0.03 20.98 26.91 0.03 13.36 0.04 0.05 0.06 87.04 2.91 2.91 2.39 3.06 - 1.52 0.01 0.01 0.01 0.05 0.06 0.05 0.05	M21)           sak)         Ch           bg 13         Ch           50.22         3C           0.12         0           29.77         23           3.06         15           2.27         0           0.03         13           0.01         0           0.03         6           9.01         1.           94.64         88           3.56         3.           0.01         0           2.11         2           0.16         -           -         1.           0.01         0	S2           112         Phg           0.67         55.2           0.3         0.21           3.67         28.3           0.87         3.48           0.3         0.03           3.19         3.62           0.3         0.02           0.3         0.02           0.3         0.02           0.5         0.04           1.2         8.29           3.66         99.3           29         3.65           -         0.01           54         1.89           1.3         0.22           -         -           4.1         0.24           0.1	5         Chl 2414           7         28.6           0.27         5           5         22.9           22.1         0.58           0.59         22.1           0.51         18.0           0.00         0.00           0.01         0.00           0.02         92.5           3.02         3.02           0.03         0.01           2.44         2.33           0.000         1.90           1.90	S1 (Ppear 15 Phg 5 2 4 0 3 4 1 1 8 2 2 1 3 5 0 - - -	GHI (k) (11120 49.57 0.04 28.25 4.26 0.04 3.19 0.05 0.11 9.85 95.36 3.54 - 2.01 0.3 - 0.23 - 0.23 -	U (CM S1 Chl 48 P 28.19 0.03 22.15 21.70 0.63 17.76 0.05 0.03 0.01 90.55 3.04 - 2.39 2.34 0.07 1.92 0.01	<b>D50D)</b> ( <i>T</i> <sub>peak</sub> ) hg 124 50.58 0.06 29.18 4.00 0.05 2.83 0.07 0.11 9.87 96.75 3.54 - 2.04 0.28 - 0.20 - 0.20 -	Chl 43 28.21 0.04 19.08 22.51 0.60 18.92 0.09 0.02 0.02 89.49 3.1 - 2.10 2.48 0.07 2.08 0.01	S2 Phg 322 50.08 0.04 29.03 3.61 0.03 2.67 0.05 0.12 10.28 95.91 3.55 - 2.06 0.26 0.26 - 0.19 -
sum ox         14         11 <th< td=""><td>Sample Domain Analyse Wt% SiO<sub>2</sub> TiO<sub>2</sub> Al<sub>2</sub>O<sub>3</sub> FeO MnO MgO CaO Na<sub>2</sub>O K<sub>2</sub>O tot. Cations Si Ti Al Fe<sup>2+</sup> Mn Mg Ca Nag Ca Nag</td><td>Chl 75 Chl 75 Ch</td><td>I         (Ppenk)           7         Phg 269           7         50.81           0,27         8           20.86         7           4         3.17           0.04         3.17           0.04         3.17           0.04         3.17           0.05         0.04           0.04         3.86           0.02         1.59           0.33         -           0.024         -           0.024         -           0.014         -</td><td>CPU ( S1 Chl 85 Chl 85 1 27.22 0.03 5 22.35 23.58 0.36 13.21 0.01 0.02 0.02 0.02 7 86.8 - 2.50 2.64 0.04 1.48 - - 2.50</td><td>CM22) (<i>T</i><sub>peak</sub>) 6 Phg 55 0.18 28.77 3.48 0.03 3.65 0.01 0.03 8.21 97.28 3.62 0,01 1.97 0.24 - 0.25 - -</td><td>B) Chl 26 F 28.14 0.03 19.51 24.85 0.36 15.15 0.01 0.02 88.09 3.13 - 2.17 2.76 0.04 1.68 - - -</td><td>52 Phg 136 45.36 0.23 22.06 4.19 0.04 2.69 0.03 0.07 7.90 82.57 3.69 0.02 1.79 0.34 - 0.22 - -</td><td>S1 (<i>I</i> <i>Chl 31</i> 28.27 0.02 22.61 22.54 0.04 13.99 0.04 0.05 0.68 88.24 3.10 - 2.48 2.47 - 1.54 0.01 0.07</td><td>Ppeak)         Phg 18           Phg 18         0           48.40         0           0.11         1           30.56         1           3.31         1           2.29         1           0.03         1           0.03         1           0.04         1           8.98         1           93.83         1           2.20         1           0.01         2           0.24         1           0.16         -           -         0.01           0.65         1</td><td>PU (Cl S1 (<i>T</i><sub>pc</sub>) <i>hl 18 Pl</i> 25.58 0.03 20.98 26.91 0.03 13.36 0.04 0.05 0.06 87.04 2.91 - 2.39 3.06 - 1.52 0.01 0.01</td><td>M21)           sak)         Ch           50.22         3C           0.12         0           29.77         23           3.06         15           2.27         0           0.03         13           0.01         0           0.03         13           0.01         0           9.01         1.           94.64         88           3.56         3           0.01         0           2.11         2           0.16         -           -         1.           0.01         0</td><td>S2           112         Phg           0.67         55.2           0.3         0.21           0.67         28.3           0.67         28.3           0.87         3.48           0.3         0.03           0.19         3.62           0.3         0.02           0.3         0.02           0.5         0.04           1.12         8.25           3.66         99.3           29         3.66           -         0.01           54         1.85           1.3         0.23           -         -           .41         0.24           .01         -           .12         0.55</td><td>5         Chl 2414           7         28.6           0.27         5           22.9         22.1           0.58         18.0           0.00         0.00           0.01         0.00           0.02         92.5           3.00         0.00           2.41         2.33           0.00         1.99          </td><td>S1 (Ppec i5 Phg 5 2 4 0 3 4 1 1 2 2 1 3 5 0 1 1 2 1 1 2 1 1 2 1 1 2 1 1 1 1 1 1 1 1 1 1 1 1 1</td><td>GH (11120 49.57 0.04 28.25 4.26 0.04 3.19 0.05 0.11 9.85 95.36 3.54 - 2.01 0.3 - 0.23 - 0.01</td><td>U (CM S1 Chl 48 P 0.03 22.15 21.70 0.63 17.76 0.05 0.03 0.01 90.55 3.04 - 2.39 2.34 0.07 1.92 0.01 -</td><td><b>D50D)</b> (<i>T</i><sub>peak</sub>) hg 124 50.58 0.06 29.18 4.00 0.05 2.83 0.07 0.11 9.87 96.75 3.54 - 2.04 0.28 - 2.04 0.28 - 0.20 - 0.01</td><td>Chl 43           28.21           0.04           19.08           22.51           0.60           18.92           0.09           0.02           89.49           3.1           -           2.10           2.48           0.07           2.08           0.01</td><td>S2 Phg 322 50.08 0.04 29.03 3.61 0.03 2.67 0.05 0.12 10.28 95.91 3.55 - 2.06 0.26 0.26 0.19 - -</td></th<>	Sample Domain Analyse Wt% SiO <sub>2</sub> TiO <sub>2</sub> Al <sub>2</sub> O <sub>3</sub> FeO MnO MgO CaO Na <sub>2</sub> O K <sub>2</sub> O tot. Cations Si Ti Al Fe <sup>2+</sup> Mn Mg Ca Nag Ca Nag	Chl 75 Ch	I         (Ppenk)           7         Phg 269           7         50.81           0,27         8           20.86         7           4         3.17           0.04         3.17           0.04         3.17           0.04         3.17           0.05         0.04           0.04         3.86           0.02         1.59           0.33         -           0.024         -           0.024         -           0.014         -	CPU ( S1 Chl 85 Chl 85 1 27.22 0.03 5 22.35 23.58 0.36 13.21 0.01 0.02 0.02 0.02 7 86.8 - 2.50 2.64 0.04 1.48 - - 2.50	CM22) ( <i>T</i> <sub>peak</sub> ) 6 Phg 55 0.18 28.77 3.48 0.03 3.65 0.01 0.03 8.21 97.28 3.62 0,01 1.97 0.24 - 0.25 - -	B) Chl 26 F 28.14 0.03 19.51 24.85 0.36 15.15 0.01 0.02 88.09 3.13 - 2.17 2.76 0.04 1.68 - - -	52 Phg 136 45.36 0.23 22.06 4.19 0.04 2.69 0.03 0.07 7.90 82.57 3.69 0.02 1.79 0.34 - 0.22 - -	S1 ( <i>I</i> <i>Chl 31</i> 28.27 0.02 22.61 22.54 0.04 13.99 0.04 0.05 0.68 88.24 3.10 - 2.48 2.47 - 1.54 0.01 0.07	Ppeak)         Phg 18           Phg 18         0           48.40         0           0.11         1           30.56         1           3.31         1           2.29         1           0.03         1           0.03         1           0.04         1           8.98         1           93.83         1           2.20         1           0.01         2           0.24         1           0.16         -           -         0.01           0.65         1	PU (Cl S1 ( <i>T</i> <sub>pc</sub> ) <i>hl 18 Pl</i> 25.58 0.03 20.98 26.91 0.03 13.36 0.04 0.05 0.06 87.04 2.91 - 2.39 3.06 - 1.52 0.01 0.01	M21)           sak)         Ch           50.22         3C           0.12         0           29.77         23           3.06         15           2.27         0           0.03         13           0.01         0           0.03         13           0.01         0           9.01         1.           94.64         88           3.56         3           0.01         0           2.11         2           0.16         -           -         1.           0.01         0	S2           112         Phg           0.67         55.2           0.3         0.21           0.67         28.3           0.67         28.3           0.87         3.48           0.3         0.03           0.19         3.62           0.3         0.02           0.3         0.02           0.5         0.04           1.12         8.25           3.66         99.3           29         3.66           -         0.01           54         1.85           1.3         0.23           -         -           .41         0.24           .01         -           .12         0.55	5         Chl 2414           7         28.6           0.27         5           22.9         22.1           0.58         18.0           0.00         0.00           0.01         0.00           0.02         92.5           3.00         0.00           2.41         2.33           0.00         1.99	S1 (Ppec i5 Phg 5 2 4 0 3 4 1 1 2 2 1 3 5 0 1 1 2 1 1 2 1 1 2 1 1 2 1 1 1 1 1 1 1 1 1 1 1 1 1	GH (11120 49.57 0.04 28.25 4.26 0.04 3.19 0.05 0.11 9.85 95.36 3.54 - 2.01 0.3 - 0.23 - 0.01	U (CM S1 Chl 48 P 0.03 22.15 21.70 0.63 17.76 0.05 0.03 0.01 90.55 3.04 - 2.39 2.34 0.07 1.92 0.01 -	<b>D50D)</b> ( <i>T</i> <sub>peak</sub> ) hg 124 50.58 0.06 29.18 4.00 0.05 2.83 0.07 0.11 9.87 96.75 3.54 - 2.04 0.28 - 2.04 0.28 - 0.20 - 0.01	Chl 43           28.21           0.04           19.08           22.51           0.60           18.92           0.09           0.02           89.49           3.1           -           2.10           2.48           0.07           2.08           0.01	S2 Phg 322 50.08 0.04 29.03 3.61 0.03 2.67 0.05 0.12 10.28 95.91 3.55 - 2.06 0.26 0.26 0.19 - -
	Sample Domain Analyse Wt% SiO <sub>2</sub> TiO <sub>2</sub> Al <sub>2</sub> O <sub>3</sub> FeO MnO MgO CaO Na <sub>2</sub> O K <sub>2</sub> O tot. Cations Si Ti Al Fe <sup>2+</sup> Mn Mg Ca Na K	Ch1 75 Ch1 75 25.7 0.03 19.6 24.4 0.42 14.9 0.01 0.02 0.05 85.5 2.97 - 2.29 2.83 0.05 2.83 0.05 1.72 2.83 0.05	I         (Ppenk)           7         Phg 269           7         50.81           0,27         3           8         20.86           7         4.30           6         0.02           4         3.17           0.044         3.17           0.044         0.17           4         7.13           7         86.77           0.02         1.59           0.33         -           0.24         -           0.01         0.54	CPU ( S1 Chl 85 Chl 85 1 27.22 0.03 5 22.35 23.58 0.36 13.21 0.01 0.02 0.02 7 86.8 - 2.50 2.64 0.04 1.48 - - - - -	CM22) ( <i>T</i> <sub>peak</sub> ) 6 Phg 55 6 Phg 55 2.52.92 0.18 28.77 3.48 0.03 3.65 0.01 0.03 8.21 97.28 3.62 0.01 1.97 0.24 - 0.25 - - 0,56	B) Chl 26 F 28.14 0.03 19.51 24.85 0.36 15.15 0.01 0.02 0.02 88.09 3.13 - 2.17 2.76 0.04 1.68 - - - - -	52 Phg 136 45.36 0.23 22.06 4.19 0.04 2.69 0.03 0.07 7.90 82.57 3.69 0.02 1.79 0.34 - 0.22 - 0.64	S1 ( <i>I</i> <i>Chl 31</i> 28.27 0.02 22.61 22.54 0.04 13.99 0.04 0.05 0.68 88.24 3.10 - 2.48 2.47 - 1.54 0.01 0.07 3.10	Ppeak)         Phg 18           Phg 18         0           48.40         0           0.11         1           30.56         3           3.31         2           0.03         0           0.03         0           0.04         0           0.05         3           93.83         0           2.20         0           0.48         0           0.24         0           0.24         0           0.01         0           0.24         0           0.01         0           0.65         3.48	PU (Cl S1 ( <i>T</i> <sub>pc</sub> ) <i>hl 18 Pl</i> 25.58 0.03 20.98 26.91 0.03 13.36 0.04 0.05 0.06 87.04 2.91 - 2.39 3.06 - 1.52 0.01 0.01 2.91	M21)           sak)         Ch           50.22         3C           0.12         0           29.77         23           3.06         15           2.27         0           0.03         13           0.01         0           0.15         0           9.01         1.           94.64         88           3.56         3           0.01         0           2.11         2           0.22         2           0.16         -           -         1.           0.01         0           0.3.56         3	S2           1/12         Phg           0.67         55.2           0.3         0.21           0.67         28.3           0.67         28.3           0.87         3.48           0.3         0.03           0.3         0.03           0.5         0.04           1.12         8.25           3.66         99.3           29         3.66           -         0.01           .54         1.88           1.3         0.23           -         -           4.1         0.24           0.1         -           1.2         0.55           2.9         3.69	5         Chl 2414           7         28.6           0.22         0.22           5         22.9           22.1         0.58           18.0         0.00           0.00         0.00           22.92.5         3.00           0.00         0.00           2.92.5         0.00           0.00 <td>S1 (Ppec 15 Phg 5 2 4 0 3 4 1 1 1 8 2 2 1 3 5 0 1 5 0 1 1 1 1 1 1 1 1 1 1 1 1 1</td> <td>GH (k) (11120 49.57 0.04 28.25 4.26 0.04 3.19 0.05 0.11 9.85 95.36 3.54 - 2.01 0.3 - 0.23 - 0.01 0.7</td> <td>U (CM S1 Ch1 48 P 28.19 0.03 22.15 21.70 0.63 17.76 0.05 0.03 0.01 90.55 3.04 - 2.39 2.34 0.07 1.92 0.01 - - -</td> <td><b>D50D)</b> (<i>T</i><sub>peak</sub>) hg 124 50.58 0.06 29.18 4.00 0.05 2.83 0.07 0.11 9.87 96.75 3.54 - 2.04 0.28 - 0.20 - 0.20 - 0.01 0.69</td> <td>Chl 43 28.21 0.04 19.08 22.51 0.60 18.92 0.09 0.02 0.02 89.49 3.1  2.10 2.48 0.07 2.08 0.01  </td> <td>S2 Phg 322 50.08 0.04 29.03 3.61 0.03 2.67 0.05 0.12 10.28 95.91 3.55 - 2.06 0.26 - 0.19 - - 0.19 - - 0.73</td>	S1 (Ppec 15 Phg 5 2 4 0 3 4 1 1 1 8 2 2 1 3 5 0 1 5 0 1 1 1 1 1 1 1 1 1 1 1 1 1	GH (k) (11120 49.57 0.04 28.25 4.26 0.04 3.19 0.05 0.11 9.85 95.36 3.54 - 2.01 0.3 - 0.23 - 0.01 0.7	U (CM S1 Ch1 48 P 28.19 0.03 22.15 21.70 0.63 17.76 0.05 0.03 0.01 90.55 3.04 - 2.39 2.34 0.07 1.92 0.01 - - -	<b>D50D)</b> ( <i>T</i> <sub>peak</sub> ) hg 124 50.58 0.06 29.18 4.00 0.05 2.83 0.07 0.11 9.87 96.75 3.54 - 2.04 0.28 - 0.20 - 0.20 - 0.01 0.69	Chl 43 28.21 0.04 19.08 22.51 0.60 18.92 0.09 0.02 0.02 89.49 3.1  2.10 2.48 0.07 2.08 0.01  	S2 Phg 322 50.08 0.04 29.03 3.61 0.03 2.67 0.05 0.12 10.28 95.91 3.55 - 2.06 0.26 - 0.19 - - 0.19 - - 0.73

Table Sm1. Representative electron microprobe analysis of the Chl–Phg pairs selected in the samples of metapelites.

-: below detection limits

**Table Sm2** *P*–*T* estimates for the three generations of Chl–Phg pairs in the six studied units. *P*–*T* estimates of CPU and PPU are after Di Rosa et al. (2017a). The results (Chl–Phg 1<sup>st</sup>, 2<sup>nd</sup> and 3<sup>rd</sup> generation) obtained with the Chl–Phg-quartz-water multiequilibrium approach (Vidal and Parra, 2000) are compared with classical thermobarometric methods ( $P_{max}$  and  $T_{max}$ ).

		Chl-Phg 1st	generation	Chl-Phg 2 <sup>n</sup>	<sup>ad</sup> generation	Chl-Phg 3 <sup>r</sup>	<sup>d</sup> generation	<b>P</b> <sub>max</sub> (Massonne	T <sub>max</sub>
	unit		D1 P	HASE		D2 P	PHASE	and Schreyer, 1987)	
		<i>T</i> (°C)	<i>P</i> (GPa)	T (°C)	P (GPa)	T (°C)	<i>P</i> (GPa)	P (GPa)	<i>T</i> (°C)
CIMA PEDANI area	CAU	176–262	1.04-0.82	393-455	0.76-0.63	310-247	0.45-0.33	1.08	470 (Hillier and Velde, 1991)
	PEU	280-360	1.35-0.80	440-435	0.75-0.45	351-237	0.35-0.23	1.25	452 (Cathelineau, 1988)
	SCU	277–280	1.34-0.90	435-388	0.83-0.51	312-278	0.31-0.26	0.81	401 (Lanari et al., 2014)
CORTE area	PPU	200-240	1.04-0.75	340-400	0.80-0.51	300-240	0.30-0.23	1.19	344 (Lanari et al., 2014)
	CPU	250-330	1.22-1.00	350-320	0.80-0.56	310-230	0.36-0.25	1.26	350 (Lanari et al., 2014)
GHISONI area	GHU	245-250	0.81-072	263-243	0.68-0.39	228-209	0.30-0.13	0.92	272 (Lanari et al., 2014)

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