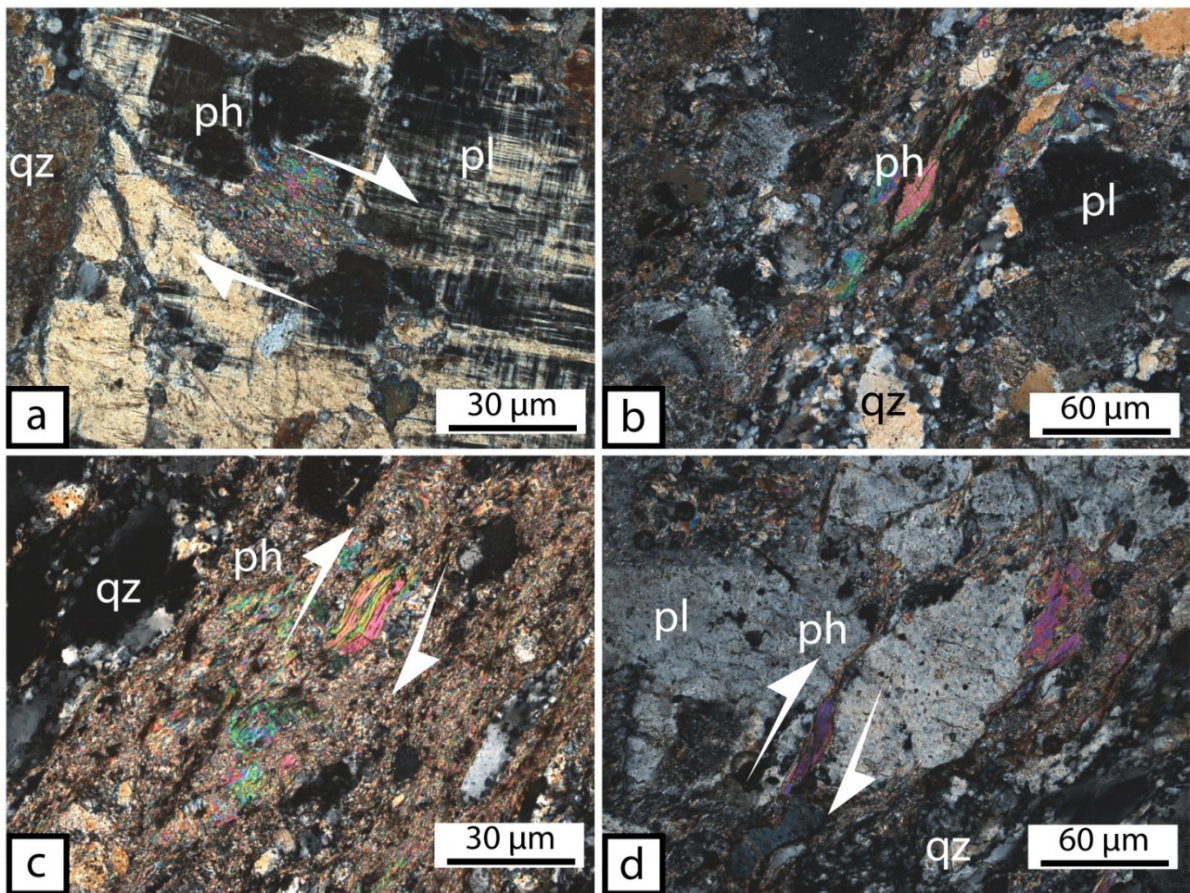


Supplementary Material:



Supplementary Figure 1: Optical microscopy images using polarized and analyzed light of white micas studied with the microprobe: (a) TP627 - (b) TP492 - (d) TP752a: neocrystallized phengites from plagioclases during the shearing of the granodiorite by the Véronique fault; (c) TP492: Neoformed sigmoidal phengites in granodiorite and sheared with quartz recrystallization in pressure shadow.

Biotites	Analyze number	Microprobe analyze data (Lecouffe, 1987)										Structural formula										Pressure calculation		
		SiO2	TiO2	Al2O3	FeO	MgO	Na2O	K2O	F	H2O	Total	Si	Al IV	Ti	Al VI	Fe 2+	Mg	Na	K	F	OH	O	Al tot	P (kbar)
049-1	1	35.42	1.02	17.59	22.46	8.11	0.09	9.57		3.74	98.37	5.63	2.37	0.12	0.93	2.99	1.92	0.03	1.94		3.98	22.39	3.30	3.46
049-1	2	35.78	0.7	17.15	20.99	8.27	0.04	9.99		3.68	96.94	5.78	2.22	0.09	1.05	2.84	1.99	0.01	2.06		3.97	22.54	3.27	3.37
049-1	5	35.68	1.29	17.25	22.07	8.27	0.05	9.46		3.73	97.99	5.69	2.31	0.16	0.93	2.94	1.97	0.02	1.92		3.97	22.43	3.24	3.29
049-2	6	35.1	0.91	17.55	22.3	8.7	0.02	9.7		3.75	98.22	5.57	2.43	0.11	0.86	2.96	2.06	0.01	1.97		3.98	22.31	3.29	3.42
182-1	12	34.75	0.97	16.77	22.39	7.58	0.06	9.44		3.63	95.77	5.70	2.30	0.12	0.94	3.07	1.85	0.02	1.98		3.97	22.44	3.24	3.30
182-1	13	34.57	0.86	17.19	21.9	7.72	0.02	9.31		3.63	95.42	5.67	2.33	0.11	0.99	3.00	1.89	0.01	1.95		3.98	22.41	3.32	3.53
182-1	14	34.88	0.99	17.2	22.47	7.69		9.28		3.67	96.42	5.66	2.34	0.12	0.95	3.05	1.86		1.92		3.98	22.39	3.29	3.44
182-1	15	34.98	0.89	16.9	22.14	7.75	0.06	9.79		3.63	96.47	5.71	2.29	0.11	0.96	3.02	1.89	0.02	2.04		3.95	22.47	3.25	3.32
182-1	16	35.41	0.89	16.77	22.14	7.94	0.05	9.69		3.68	96.79	5.74	2.26	0.11	0.95	3.00	1.92	0.02	2.01		3.98	22.46	3.21	3.18
182-1	17	34.78	0.51	17.47	22.97	7.92	0.03	9.9	0.11	3.63	97.55	5.61	2.39	0.06	0.92	3.10	1.90	0.01	2.04	0.06	3.91	22.35	3.32	3.52
182-1	18	34.98	0.51	17.28	21.48	7.62	0.05	9.66		3.6	95.36	5.76	2.24	0.06	1.11	2.96	1.87	0.02	2.03		3.96	22.52	3.35	3.63
182-2	19	34.97	1.02	17.59	22.8	7.36	0.05	9.62		3.66	97.22	5.66	2.34	0.12	1.02	3.09	1.78	0.02	1.99		3.96	22.46	3.36	3.64
182-2	20	34.75	0.9	16.81	22.72	7.6	0.06	9.53		3.64	96.23	5.68	2.32	0.11	0.92	3.11	1.85	0.02	1.99		3.98	22.41	3.24	3.28
182-2	21	34.18	0.94	16.93	22.62	7.64		9.47	0.55	3.36	95.92	5.61	2.39	0.12	0.89	3.11	1.87		1.98	0.29	3.68	22.36	3.28	3.40
246-1	5	37.27	0.32	17.14	19.96	10.56	0.04	10.19	0.46	3.63	100.23	5.76	2.24	0.04	0.88	2.58	2.43	0.01	2.01	0.23	3.75	22.37	3.12	2.93
202-1	2	35.47	1.03	17.28	21.87	8.18	0.09	9.53	0.3	3.58	97.71	5.68	2.32	0.12	0.95	2.94	1.95	0.03	1.95	0.15	3.83	22.43	3.26	3.36
202-1	3	35.66	0.89	17.55	22.51	8.39	0.01	10.14		3.76	99.28	5.64	2.36	0.11	0.91	2.98	1.98	0.00	2.05		3.97	22.40	3.27	3.38
202-1	4	35.93	0.55	17.32	21.77	8.27	0.04	10.39		3.71	98.17	5.76	2.24	0.07	1.03	2.92	1.98	0.01	2.12		3.97	22.53	3.27	3.38
202-1	6	36.04	0.96	17.46	22.03	8.53	0.01	10.38		3.77	99.62	5.69	2.32	0.11	0.93	2.91	2.01	0.00	2.09		3.97	22.47	3.25	3.31
202-2	13	36.22	1.01	17.73	22.82	8.5	0.06	10.19		3.83	100.42	5.66	2.34	0.12	0.92	2.98	1.98	0.02	2.03		3.99	22.43	3.26	3.36
202-2	14	36.28	0.71	17.36	21.79	8.75		10.14		3.78	99.05	5.73	2.27	0.08	0.96	2.88	2.06		2.04		3.98	22.45	3.23	3.26
246-1	5	37.27	0.32	17.14	19.96	10.56		10.19	0.46	3.63	100.19	5.76	2.24	0.04	0.88	2.58	2.43		2.01	0.23	3.75	22.36	3.12	2.93
246-1	6	37.71	0.55	17.06	20.05	11.16	0.03	10.08		3.94	101	5.74	2.26	0.06	0.80	2.55	2.53	0.01	1.96		4.00	22.32	3.06	2.74
246-2	8	36.92	0.59	17.24	20.9	9.95	0.05	10.26		3.83	100.17	5.73	2.27	0.07	0.88	2.71	2.30	0.02	2.03		3.97	22.39	3.15	3.02
246-2	9	36.82	0.51	17.33	20.68	9.97	0.06	10.11	0.38	3.62	100.02	5.72	2.23	0.06	0.90	2.69	2.31	0.02	2.01	0.19	3.76	22.38	3.13	2.94
246-2	1	36.99	0.66	16.76	20.37	10.14	0.07	10.14		3.81	99.42	5.77	2.23	0.08	0.86	2.66	2.36	0.02	2.02		3.97	22.41	3.08	2.81
SC2-1	5	38.36	0.28	17.43	11.48	16.78	0.1	10.4	1.78	3.17	99.94	5.72	2.28	0.03	0.79	1.43	3.73	0.03	1.98	0.84	3.16	22.29	3.06	2.75

ESM Tab. 1: Analytical results table and corresponding calculated pressures of the biotites from the La Fourque granodiorite with the equation of Uchida et al. (2007) (data compiled from Lecouffe, 1987)

Supplementary Table 1: Analytical results table and corresponding calculated pressures of the biotites from the La Fourque granodiorite with the equation of Uchida *et al.* (2007) (data compiled from Lecouffe, 1987)

Sample	n	SiO2	TiO2	Al2O3	FeO	MnO	MgO	CaO	Na2O	K2O	Cl	F	Total	Structural formula
TP752a	46	47.44	0.34	32.56	1.95	0.05	1.38	0.01	0.23	10.9	0.01	0	94.87	$K_{0,93} Na_{0,03} (Fe_{0,11} Al_{1,78} Mg_{0,14}) (Al_{0,80} Si_{3,18} O_{10}) (OH, F)_2$
TP492	3	47.44	0.37	31.8	2.7	0.02	1.64	0.01	0.18	11.22	0	0	95.71	$K_{0,96} Na_{0,02} (Fe_{0,15} Al_{1,71} Mg_{0,16}) (Al_{0,80} Si_{3,18} O_{10}) (OH, F)_2$
TP627	8	47.96	0.3	31.96	1.61	0.04	1.6	0.02	0.22	10.77	0.01	0.01	94.52	$K_{0,92} Na_{0,03} (Fe_{0,09} Al_{1,73} Mg_{0,16}) (Al_{0,80} Si_{3,22} O_{10}) (OH, F)_2$
TP652a	23	47.7	0.33	32.6	2.17	0.06	1.5	0	0.24	10.8	0.01	0	95.41	$K_{0,92} Na_{0,03} (Fe_{0,12} Al_{1,77} Mg_{0,15}) (Al_{0,80} Si_{3,18} O_{10}) (OH, F)_2$

ESM Tab. 2: Result of microprobe analyzes of white mica from E-W trending shear zones (Véronique and satellite faults) intersecting the La Fourque granodiorite. N correspond to the number of analyzes.

Supplementary Table 2: Result of microprobe analyzes of white mica from E-W trending shear zones (Veronique and satellite faults) intersecting the La Fourque granodiorite. N correspond to the number of analyzes.

Analyze	SiO2	Al2O3	Fe2O3	FeO	MgO	MnO	CaO	Na2O	K2O	TiO2	Cr2O3	F	Cl	Total
SAI2B core	44,16	11,24	0	21,61	7,64	0,36	10,1	1,14	0,84	1,72				100,83
SAI2B rim	49,51	7,22	0	19,09	8,79	0,31	11,03	0,67	0,84	0,53				100,01
Formula	Si	Al VI	Al IV	Fe3+	Fe2+	Mg	Mn	Ca	Na	K	Ti	Total	O	OH
SAI2B core	6,54	0,5	1,46	0,87	1,7	1,7	0,05	1,6	0,33	0,16	0,19	15,1	22	2
SAI2B rim	7,34	0,6	0,66	0,09	2,26	1,95	0,04	1,75	0,19	0,16	0,06	15,1	22	2
Pressure (kbar)	Al tot	Hammarstorm & Zen, 1986		Hollister et al., 1987		Johnson & Rutherford, 1988		Thomas & Ernst, 1992		Schmidt, 1992		Mutch et al., 2016		
SAI2B core	1,96	5,94		6,29		4,83		4,24		6,32		4,97		
SAI2B rim	1,26	2,42		2,35		1,87		0,50		2,99		2,50		

Supplementary Table 3: Table of analytical results by electron microprobe of the hornblendes from la Fourque granodiorite (Soler, 1977) and the corresponding pressures calculated from the equations of Hammarstorm & Zen. (1986); Hollister *et al.* (1987) and Johnson & Rutherford, (1988); Thomas & Ernst, (1992); Schmidt, (1992); Mutch *et al.* (2016).