Yuzhi Zhang, Xue Yang, Yuejun Wang, Xin Qian, Yukun Wang, Qiyu Gou, Vongpaseuth Senebouttalath, and Aimei Zhang, 2020, Rifting and subduction records of the Paleo–Tethys in North Laos: Constraints from Late Paleozoic mafic and plagiogranitic magmatism along the Song Ma tectonic zone: GSA Bulletin, <https://doi.org/10.1130/B35537.1>.

Supplemental Material

Table S1. Major, trace elemental and Sr-Nd isotopic analytical results for the mafic and plagiogranitic rocks along the Song Ma tectonic zone in North Laos.

Table S2. SIMS and LA-ICPMS zircon U-Pb dating results for the mafic, plagiogranitic and associated granitic host rocks along the Song Ma tectonic zone in North Laos.

Table S3. Zircon in-situ Hf and O isotopic analytical results for the mafic and plagiogranitic rocks along the Song Ma tectonic zone in North Laos.

Table S1. Major, trace elemental and Sr-Nd isotopic analytical results for the mafic and plagiogranitic rocks along the Song Ma tectonic zone in North Laos

Sample	15NL-56 D	15NL-56 E	15NL-57 A	15NL-57 B	15NL-57 C	15NL-57 E	15NL-57 F	15NL-57 H	15NL-57 G	15NL-57 J	15NL-57 K	15NL-57 L	SM03A^	SM03B^
	Group 1													
(wt.%)														
SiO ₂	49.54	49.22	48.71	50.73	49.29	49.70	49.44	48.86	48.97	48.86	49.20	48.37	48.96	48.87
TiO ₂	1.09	1.09	1.86	1.88	1.73	1.97	1.94	1.89	1.93	2.04	1.94	1.84	1.89	1.71
Al ₂ O ₃	14.42	14.58	12.82	13.03	13.04	13.24	13.41	12.92	13.20	12.91	13.03	12.51	12.99	12.89
FeOt	11.85	12.14	14.42	14.18	14.03	14.60	14.60	14.77	15.00	15.06	14.95	15.10	14.13	14.39
MgO	7.48	7.40	6.53	6.56	7.03	6.74	6.74	6.77	6.85	7.13	6.85	7.03	6.93	6.14
CaO	10.56	10.54	10.44	8.60	10.13	8.86	8.79	9.78	8.78	8.69	8.85	10.13	8.5	10.53
K ₂ O	0.31	0.29	0.46	0.34	0.48	0.35	0.32	0.40	0.34	0.38	0.36	0.42	0.24	0.29
Na ₂ O	2.98	3.25	2.90	3.64	2.51	3.41	3.73	3.18	3.68	3.25	3.35	2.95	2.99	1.81
P ₂ O ₅	0.07	0.06	0.17	0.19	0.15	0.19	0.19	0.18	0.19	0.17	0.19	0.18	0.17	0.14
MnO	0.19	0.19	0.21	0.23	0.20	0.23	0.23	0.23	0.24	0.26	0.24	0.25	0.24	0.23
LOI	1.04	1.25	0.91	0.62	0.94	0.77	0.86	0.89	0.84	1.02	0.72	0.89		
Total	99.53	100.01	99.43	100.02	99.54	100.08	100.25	99.88	100.02	99.76	99.67	99.67	97.05	96.99
Mg [#]	60	59	51	52	54	52	52	52	52	52	52	52	53	50
(ppm)														
V	319.4	409.9	408.3	401.4	387.2	410.8	400.2	407.4	287.4	420.3	417.9	409.6	389	397
Cr	100.1	174.2	106.8	48.79	67.64	52.25	59.75	59.1	89.51	55.88	54.37	64.66	109	100
Co	46.23	46.81	45.53	44.31	46.73	47.3	47.38	47.77	33.8	46.98	46.2	48.65	46	48
Ni	49.52	67.13	62.19	47.42	56.52	50.67	52.82	49.78	50.54	48.21	51.44	58.05	79	92
Rb	5.912	2.456	8.433	2.975	4.038	2.537	4.498	4.63	36.64	4.867	2.709	5.354	4.74	10.4
Sr	165.4	126.7	139.7	136.6	134.3	136.6	125.1	126.1	172.4	125.2	125.6	109.7	102	97.5
Y	24.98	42.06	41.5	44.05	38.82	44.81	43.91	44.21	26.51	47.46	44.95	44.77	44.9	41.6
Zr	59.77	118.9	107.8	124.7	103.6	124.8	119.1	125.5	70.03	140.4	132	125.6	111	94.8
Nb	0.835	1.888	1.909	2.09	2.02	2.1	2.196	2.234	1.222	2.342	2.299	2.277	2.39	1.87
Ba	34.62	22.84	47.62	26.12	31.04	24.76	32.69	32.67	265	43.37	25.64	38.68	70	31.8
La	1.887	3.577	4.189	4.472	4.316	4.208	5.393	5.484	2.793	5.845	4.235	5.123	3.42	2.61

Ce	6.223	11.53	12.97	13.32	13.11	13.79	15.38	15.69	8.328	17.09	13.37	15.06	11.1	8.7
Pr	1.205	2.258	2.382	2.545	2.24	2.532	2.681	2.705	1.458	3.088	2.519	2.6	2	1.6
Nd	7.021	12.85	13.49	14.26	12.62	14.57	14.65	14.85	8.24	16.83	14.35	14.5	11	8.98
Sm	2.499	4.53	4.557	4.789	4.186	5.021	4.76	4.823	2.779	5.497	4.834	4.764	4.1	3.51
Eu	1.004	1.567	1.617	1.63	1.433	1.599	1.769	1.725	1.002	1.764	1.657	1.639	1.42	1.23
Gd	3.226	5.617	5.8	5.967	5.15	6.134	5.886	5.962	3.523	6.723	6.052	5.934	5.79	5.08
Tb	0.685	1.142	1.174	1.205	1.066	1.245	1.232	1.213	0.708	1.347	1.248	1.22	1.05	0.94
Dy	4.62	7.698	7.724	8.112	7.099	8.346	8.135	8.212	4.721	9.013	8.492	8.078	7.18	6.46
Ho	1.007	1.722	1.716	1.777	1.569	1.868	1.797	1.799	1.052	2.01	1.872	1.786	1.62	1.47
Er	2.831	4.647	4.659	4.934	4.359	5.115	5.003	4.889	2.897	5.464	5.167	4.951	4.73	4.3
Tm	0.433	0.703	0.718	0.751	0.657	0.766	0.744	0.749	0.44	0.831	0.778	0.754	0.708	0.659
Yb	2.718	4.522	4.669	4.763	4.249	4.866	4.814	4.894	2.821	5.352	5.027	4.785	4.61	4.28
Lu	0.416	0.679	0.69	0.729	0.642	0.738	0.724	0.724	0.421	0.792	0.752	0.727	0.7	0.642
Hf	1.858	3.487	3.386	3.632	3.178	3.879	3.697	3.66	2.153	4.123	3.854	3.562	2.99	2.55
Ta	0.074	0.153	0.14	0.179	0.16	0.176	0.174	0.182	0.095	0.194	0.183	0.173	0.151	0.11
Pb	1.114	1.201	1.313	1.241	1.884	1.942	1.209	1.179	2.038	1.896	1.587	1.141	0.172	0.27
Th	0.542	0.736	0.802	0.744	0.604	0.78	0.86	0.864	0.782	0.598	0.642	0.771	0.279	0.21
U	0.064	0.608	0.211	0.55	0.093	0.513	0.696	0.684	0.198	0.677	0.437	0.698	0.098	0.06
⁸⁷ Rb/ ⁸⁶ Sr		0.0562	0.1750		0.0872		0.1042			0.1127				
⁸⁷ Sr/ ⁸⁶ Sr		0.705028	0.706423		0.70459 8		0.705523			0.705590				
2σ		0.000011	0.000011		0.00001 1		0.000010			0.000011				
⁸⁷ Sr/ ⁸⁶ Sr(i)		0.704732	0.705501		0.70413 9		0.704974			0.704996				
¹⁴⁷ Sm/ ¹⁴⁴ Nd		0.2132	0.2043		0.2006		0.1965			0.1975				
¹⁴³ Nd/ ¹⁴⁴ Nd		0.513048	0.513047		0.51302 3		0.513017	0.513024		0.512982				
2σ		0.000009	0.000008		0.00000 7		0.000008	0.000008		0.000007				
ε _{Nd} (t)		7.22	7.63		7.33		7.41			6.68				

(to be continued)

Sample	SM05A^	15NL-59 A	15NL-59 d	15NL-59 C	15NL-59 F	15NL-52 A	15NL-52 F	15NL-52 G	15NL-52 H	15NL-52 J	15NL-53 A ₂	15NL-53 A ₃	15NL-55 A	15NL-55C
	Group 1	Group 2												
(wt.%)														
SiO ₂	49.2	55.26	54.71	53.97	53.58	54.49	57.53	57.47	56.39	54.09	53.35	53.32	57.53	51.99
TiO ₂	0.94	0.86	0.77	0.85	0.95	1.68	1.55	0.83	1.39	1.62	1.18	1.18	1.82	1.10
Al ₂ O ₃	14	16.10	16.20	16.42	16.32	13.82	13.85	14.81	14.20	13.64	14.41	14.15	13.49	14.46
FeOt	10.83	7.66	7.15	7.96	8.04	13.25	11.85	9.04	11.37	13.72	11.90	11.91	12.81	11.68
MgO	8.17	5.71	6.04	6.35	6.04	3.18	2.19	3.80	2.63	3.32	5.37	5.20	2.33	5.95
CaO	11.35	8.24	7.61	8.96	7.37	6.93	6.47	6.72	6.48	7.35	8.64	8.65	4.87	9.23
K ₂ O	0.15	0.54	1.00	0.31	0.95	1.33	0.47	1.05	1.08	1.38	0.40	0.92	1.11	0.67
Na ₂ O	2.12	3.58	4.33	3.19	3.78	3.07	3.81	3.50	3.30	2.71	2.60	2.62	4.07	2.44
P ₂ O ₅	0.08	0.16	0.12	0.12	0.17	0.32	0.43	0.17	0.34	0.26	0.18	0.19	0.40	0.17
MnO	0.18	0.13	0.10	0.12	0.11	0.19	0.16	0.14	0.17	0.20	0.20	0.20	0.19	0.19
LOI		1.14	1.42	1.23	2.22	1.56	1.38	2.09	2.24	1.49	1.66	1.50	1.36	1.62
Total	97.02	99.39	99.45	99.47	99.53	99.82	99.70	99.62	99.58	99.76	99.89	99.85	99.98	99.51
Mg [#]	64	63	66	65	64	36	30	49	35	36	51	50	30	54
(ppm)														
V	260	150	149.6	171.2	173.2	250.4	114.8	152.7	180.6	350.8	229	263.7	173.4	254.2
Cr	246	111.3	107.8	204.3	186.8	4.952	2.856	35.56	48.03	6.782	35.91	41.59	2.654	44.56
Co	43	23.89	24.86	29.97	28.07	27.99	23.86	20.49	22.95	34.83	29.5	36.37	23.35	34.67
Ni	68	45.38	55.26	74.15	64.8	4.756	1.806	5.877	96.47	6.501	15.13	20.99	2.069	17.67
Rb	5.33	18.24	39.99	5.715	34.77	40.18	11.75	34.49	34.39	53.88	10.41	31.52	35.7	24.97
Sr	150	217.4	217.3	209	226.2	228.2	226.1	310.2	259.9	207.1	154.9	167.8	187.8	176.9
Y	23.2	25.37	19.34	20.71	20.96	33.51	28.48	22.81	25.61	28.42	25.3	28.28	32.05	25.52
Zr	52.7	61.98	72.54	67.50	65.48	120.5	120	101.6	98.69	99.91	68.81	92.76	130.5	82.6
Nb	1.05	3.084	2.424	2.784	2.992	7.032	7.882	6.02	6.621	6.377	4.229	5.682	8.402	4.73
Ba	0.72	119.3	191.7	77.08	164.1	370.2	162.3	368.1	319.9	289.4	185.1	293.8	335.4	252.9
La	1.63	8.67	5.94	6.555	7.807	15.94	22.248	16.17	16.79	17.39	11.71	12.9	19.719	10.26
Ce	5.21	20.69	14.54	15.72	18.01	36.56	42.63	32.65	36.07	37.71	25.59	28.15	43.25	23.06

Pr	0.92	2.975	2.2	2.218	2.486	4.452	5.056	3.885	4.704	4.586	3.242	3.618	5.181	2.849
Nd	5.21	13.79	10.35	10.54	11.52	18.85	21.03	15.93	20.13	19.47	14.14	15.86	21.66	12.03
Sm	1.93	3.725	2.746	2.89	2.937	4.516	4.726	3.566	4.457	4.412	3.451	3.856	4.996	3.053
Eu	0.81	1.037	0.915	0.981	0.885	1.43	1.328	1.028	1.504	1.441	1.114	1.196	1.48	0.966
Gd	2.84	4.045	3.049	3.297	3.213	5.05	4.795	3.587	4.526	4.611	3.758	4.223	5.26	3.487
Tb	0.52	0.736	0.566	0.603	0.608	0.842	0.748	0.584	0.786	0.802	0.697	0.791	0.864	0.627
Dy	3.58	4.696	3.611	3.889	3.811	5.517	4.747	3.789	4.959	5.195	4.574	5.137	5.442	4.069
Ho	0.813	1.02	0.796	0.837	0.833	1.217	1.02	0.831	1.04	1.125	1.033	1.123	1.183	0.918
Er	2.38	2.715	2.158	2.29	2.256	3.443	2.789	2.277	2.821	3.005	2.767	3.147	3.291	2.641
Tm	0.357	0.404	0.32	0.345	0.344	0.524	0.422	0.353	0.435	0.464	0.428	0.484	0.48	0.385
Yb	2.31	2.56	2.055	2.243	2.168	3.335	2.691	2.288	2.758	2.894	2.782	3.142	3.168	2.552
Lu	0.343	0.373	0.314	0.338	0.339	0.524	0.424	0.356	0.428	0.455	0.426	0.483	0.502	0.407
Hf	1.37	1.832	1.816	1.848	1.812	3.094	3.081	2.729	2.974	3.059	2.112	2.807	3.39	2.158
Ta	0.06	0.255	0.187	0.224	0.237	0.531	0.586	0.458	0.501	0.495	0.327	0.436	0.633	0.36
Pb	0	5.861	3.39	4.294	3.251	2.627	8.459	3.539	5.257	2.534	3.207	4.366	2.193	3.634
Th	0.16	1.122	1.269	1.339	1.536	4.947	5.852	3.94	4.7	5.749	3.732	4.159	5.559	3.239
U	0.06	0.534	0.495	0.434	0.513	1.144	1.203	0.915	1.089	1.215	0.767	1.048	1.216	0.752
⁸⁷ Rb/ ⁸⁶ Sr						0.5105				0.7543	0.1948		0.5511	
⁸⁷ Sr/ ⁸⁶ Sr						0.710222				0.711548	0.708686		0.710629	
2σ						0.000013				0.000011	0.000013		0.000011	
⁸⁷ Sr/ ⁸⁶ Sr(i)						0.7083				0.7087	0.7079		0.7085	
¹⁴⁷ Sm/ ¹⁴⁴ Nd						0.1449				0.1371	0.1476		0.1395	
¹⁴³ Nd/ ¹⁴⁴ Nd						0.512305				0.512267	0.512357		0.512237	
2σ						0.000007				0.000005	0.000008		0.000007	
ε _{Nd} (t)						-4.71				-5.18	-3.79		-5.85	

(to be continued)

Sample	15NL-55 D	15NL-56 B	15NL-57 M	HQ1090*	HQ1101 *	HQ1089 *	HQ1107 *	HQ1502 *	HQ8222 *	HQTTD 02*	CB8*	CB10*	HQ1554*	cb3*
Group 2														
(wt.%)														
SiO ₂	54.37	52.66	54.24	54	51.01	53.5	52.78	52.15	57.3	58.42	53.17	51.82	52.32	51.82
TiO ₂	1.07	1.28	0.85	1.35	0.94	1.36	0.93	1.06	1.47	1.48	1.04	1.08	1.12	1.08
Al ₂ O ₃	14.01	14.63	15.34	13.88	16.71	14.44	14.96	15.4	14.31	14.23	15.55	14.93	15.21	14.93
FeOt	9.63	11.90	9.62	11.01	10.43	12.08	11.36	10.26	10.77	10.61	10.81	10.83	10.83	10.83
MgO	5.89	5.50	5.19	6.5	7.8	5.88	6.28	7.46	4.56	3.4	5.66	7.69	7.47	7.69
CaO	9.70	9.62	7.37	9.48	10.84	9.06	9.74	10.19	6.49	7.69	9.91	10.28	9.39	10.28
K ₂ O	1.19	0.62	1.21	0.96	1.31	0.98	1.19	1.32	2.63	1.11	1.63	0.84	1.24	0.84
Na ₂ O	2.51	2.31	3.58	2.34	1.57	2.22	2.33	1.81	2.1	2.8	1.81	1.65	2.07	1.65
P ₂ O ₅	0.12	0.17	0.15	0.28	0.21	0.3	0.21	0.2	0.22	0.12	0.28	0.23	0.21	0.23
MnO	0.16	0.19	0.16	0.18	0.19	0.16	0.2	0.15	0.15	0.17	0.16	0.15	0.16	0.15
LOI	1.17	1.03	1.79											
Total	99.81	99.92	99.50	99.98	101.01	99.98	99.98	100	100	100.03	100.02	99.49	100	99.49
Mg [#]	59	52	56	58	64	53	56	63	50	43	55	62	62	62
(ppm)														
V	173.8	324.4	194	225.12	209.14	234.57	254.81	210.31	205.67	212.07	208.87	190.13	6.84	218.92
Cr	7.845	71.4	32.64	150.86	281.11	62.21	56.83	345.11	41.37	21.42	31.4	152.43	18.43	149.89
Co	23.73	38.09	23.16											
Ni	41.26	115.4	7.552	44.98	81.87	33.18	24.4	57.52	10.34	7.08	8.71	43.27	17.64	36.51
Rb	41.67	19.78	38.9	40.28	62.65	39.89	42.77	78.55	116.97	36.34	76.66	77.24	199.31	68.92
Sr	190	190.3	223.1	167	196	227	163	160	213	130	172	181	172	192
Y	31.55	23.56	16.95	37.76	26.49	36.73	30.72	28.99	40.42	44.54	42.48	36.99	61.23	35.98
Zr	130.4	82.35	63.2	131.66	74.08	122.21	69.97	96.93	177.76	195.71	186.74	115.35	197.24	132.14
Nb	8.878	5.291	4.289	6.31	4.86	6.51	5.57	5.02	9.05	10.06	9.56	7.29	15.46	6.72
Ba	370.4	226.6	241.3	116.92	252.49	145.2	237.66	190.44	393.12	116.19	254.66	285.19	768.45	211.42
La	20.64	11.83	9.43	21.89	11.38	17.62	14.46	12.69	25.99	29.02	27.51	21.44	50.59	19.55
Ce	45.79	26.42	21.71	44.42	23.8	36.3	30.64	26.74	53.4	60.02	56.71	42.08	90.6	40.22

Pr	5.721	3.322	2.722	5	3	4	4	3	6	7	6	5	12	5
Nd	24.51	14.47	11.96	20.97	12.62	18.92	15.92	14.25	25.34	28.93	27.14	22.16	50.27	19.87
Sm	5.449	3.412	2.71	5.06	3.26	4.81	4.07	3.72	6.1	6.65	6.38	5.46	11.86	4.92
Eu	1.633	1.102	0.897	1.21	0.91	1.47	1.08	1.01	1.3	1.32	1.31	1.32	2.24	1.25
Gd	5.438	3.694	2.77	5.73	3.72	5.35	4.54	4.31	6.66	6.9	6.78	5.84	11.4	5.51
Tb	0.944	0.659	0.496	1.03	0.68	0.98	0.8	0.77	1.14	1.2	1.17	1.05	2.04	0.98
Dy	5.937	4.305	3.14	6.55	4.35	6.32	5.01	5.06	7.01	7.67	7.34	6.59	12.27	6.24
Ho	1.278	0.932	0.67	1.42	0.95	1.35	1.1	1.07	1.51	1.65	1.58	1.42	2.62	1.34
Er	3.453	2.564	1.827	4.04	2.72	3.86	3.17	3.18	4.27	4.72	4.5	4.09	7.59	3.84
Tm	0.518	0.402	0.285	0.62	0.42	0.74	0.5	0.49	0.66	0.72	0.69	0.74	1.64	0.63
Yb	3.345	2.524	1.813	3.89	2.58	3.7	2.98	3.11	4.2	4.61	4.41	3.99	7.66	3.73
Lu	0.517	0.39	0.278	0.62	0.4	0.58	0.45	0.49	0.65	0.68	0.67	0.61	1.12	0.59
Hf	3.822	2.481	1.879	3.77	2.01	3.3	2.09	2.78	4.77	5.55	5.16	3.49	6.98	3.66
Ta	0.657	0.397	0.323	0.53	0.37	0.53	0.43	0.41	0.75	0.84	0.8	0.61	1.38	0.56
Pb	2.253	3.356	2.369	19.17	10.89	6.33	16.9	4.1	11.33	11.73	11.53	13.31	22.46	10.23
Th	5.921	3.806	3.005	7.05	3.92	7.33	5.81	5.74	11.18	12.82	12	9.53	27.35	7.83
U	1.402	0.879	0.617	1.52	0.88	1.48	1.12	1.15	2.56	2.83	2.7	2.07	6.24	1.68
⁸⁷ Rb/ ⁸⁶ Sr	0.6358	0.3013	0.5055											
⁸⁷ Sr/ ⁸⁶ Sr	0.710953	0.709167	0.710183											
2σ	0.000011	0.000013	0.000011											
⁸⁷ Sr/ ⁸⁶ Sr(i)	0.7085	0.7080	0.7082											
¹⁴⁷ Sm/ ¹⁴⁴ Nd	0.1345	0.1426	0.1370											
¹⁴³ Nd/ ¹⁴⁴ Nd	0.512231	0.512350	0.512273											
2σ	0.000008	0.000008	0.000007											
ε _{Nd} (t)	-5.80	-3.76	-5.07											

(to be continued)

Sample	cb4*	Cb5*	cb7*	15NL-53 B ₁	15NL-5 3B ₂	15NL-53 B ₃	15NL-53 B ₄	15NL-53 B ₅	15NL-53 B ₆	15NL-53 B ₇	V0821-2- 1 [#]	V0821-2- 2 [#]
	Group 2			Group 3								
(wt.%)												
SiO ₂	52.08	53.02	52.51	74.65	75.51	75.83	74.54	73.91	74.98	74.39	75.79	73.44
TiO ₂	1.04	1.32	1.19	0.05	0.05	0.04	0.12	0.08	0.12	0.09	0.2	0.25
Al ₂ O ₃	15.15	15.14	14.75	15.23	14.57	14.80	14.86	15.50	14.72	15.42	13.95	14.37
FeOt	10.71	10.87	10.98	0.16	0.15	0.14	0.22	0.30	0.03	0.13	1.91	2.99
MgO	7.66	6.36	6.97	0.22	0.19	0.18	0.13	0.26	0.06	0.26	0.9	1.31
CaO	10.05	9.17	9.99	2.30	2.18	2.09	1.34	2.51	1.41	2.58	2.1	2.57
K ₂ O	1.09	1.21	1.1	1.10	1.68	1.67	0.06	0.33	0.02	0.30	0.68	0.14
Na ₂ O	1.76	2.5	1.81	5.55	4.88	4.78	7.91	5.94	8.01	6.00	4.87	4.65
P ₂ O ₅	0.22	0.24	0.25	0.04	0.04	0.03	0.06	0.04	0.06	0.05	0.08	0.08
MnO	0.16	0.16	0.16	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.03	0.03
LOI				0.39	0.58	0.48	0.58	0.61	0.74	0.88	0.7	1.22
Total	99.91	99.99	99.71	99.71	99.83	100.05	99.82	99.51	100.16	100.11	101.21	101.05
Mg [#]	63	58	60	77	75	74	58	67	82	82	52	51
(ppm)												
V	212.07	184.4	6.84	8.41	2.44	7.916	10.65	10.82	5.68	5.9	26.2	32
Cr	152.43	72.37	18.43	2.298	1.02	1.803	3.011	3.457	3.18	2.99	205	279
Co				0.507	4.15	0.285	0.43	1.076	2.99	3.87	5.43	8.11
Ni	43.27	24.68	7.08	2.505	2.96	0.993	2.712	4.337	3.44	7.91	16.6	23
Rb	47.61	76.9	101.3	16.96	25.4	24.85	0.397	6.215	0.169	4.26	19.4	4.69
Sr	197	177	174	245.9	204	216.5	81.35	264.9	73.2	264	200	248
Y	33.66	43.12	45.13	2.569	2.72	2.674	4.382	2.968	4.39	3.22	6.34	5.89
Zr	109.32	160.95	174.56	58.36	40.7	40.15	94.11	78.84	94.3	84.5	23.6	29
Nb	5.89	9.1	10.28	0.806	1.03	0.942	1.167	0.853	1.28	0.923	2.77	3.35
Ba	171.54	268.81	363.52	272.8	373	427	8.353	136.2	6.9	121	219	131
La	16.96	27.7	30.91	8.472	8.03	7.932	8.38	7.112	7.58	5.53	16.3	10.7
Ce	34.84	54.71	60.56	15.22	12.9	14.44	16.8	12.67	14.3	12	37.1	24.4

Pr	4	7	7	1.506	1.75	1.679	1.813	1.282	1.71	1.2	4.08	2.69
Nd	17.5	27.68	30.77	5.628	6.54	6.081	6.926	4.744	6.59	4.65	15.2	9.98
Sm	4.38	6.61	7.29	1.078	1.28	1.227	1.363	0.869	1.26	0.841	3.15	2.15
Eu	1.31	1.47	1.5	0.502	0.511	0.441	0.452	0.55	0.382	0.544	0.49	0.43
Gd	4.93	6.95	7.52	0.846	0.999	0.949	1.141	0.76	1.11	0.78	2.3	1.65
Tb	0.9	1.23	1.32	0.099	0.131	0.112	0.146	0.095	0.155	0.103	0.28	0.22
Dy	5.74	7.73	8.18	0.493	0.514	0.522	0.795	0.505	0.762	0.529	1.41	1.22
Ho	1.24	1.66	1.76	0.087	0.0876	0.088	0.15	0.101	0.143	0.0939	0.22	0.2
Er	3.54	4.76	5.03	0.219	0.23	0.225	0.396	0.265	0.387	0.278	0.57	0.54
Tm	0.59	0.84	0.89	0.032	0.0317	0.032	0.058	0.039	0.0583	0.0406	0.08	0.08
Yb	3.39	4.67	4.97	0.201	0.226	0.236	0.369	0.264	0.355	0.266	0.49	0.5
Lu	0.53	0.71	0.75	0.032	0.0377	0.039	0.057	0.043	0.0567	0.0424	0.07	0.07
Hf	3.03	4.74	5.19	1.544	1.14	1.152	2.451	2.085	2.42	2.07	1.09	1.26
Ta	0.48	0.77	0.87	0.065	0.0687	0.07	0.078	0.076	0.068	0.0698	0.19	0.24
Pb	12.13	13.58	14.07	9.201	10.1	10.4	1.129	6.932	0.886	6.65	7.87	3.45
Th	6.1	12.4	14.58	2.208	2.35	2.541	2.466	1.807	2.15	1.52	7.14	4.12
U	1.29	2.74	3.28	0.411	0.478	0.541	0.555	0.401	0.506	0.366	5.67	1.62
⁸⁷ Rb/ ⁸⁶ Sr				0.2000			0.0141			0.0468		
⁸⁷ Sr/ ⁸⁶ Sr				0.705406			0.707505			0.707505		
2σ				0.000013			0.000011			0.000011		
⁸⁷ Sr/ ⁸⁶ Sr(i)				0.704666			0.707453			0.707332		
¹⁴⁷ Sm/ ¹⁴⁴ Nd				0.1158			0.1190			0.1094		
¹⁴³ Nd/ ¹⁴⁴ Nd				0.512665			0.512705			0.512705		
2σ				0.000009			0.000006			0.000006		
ε _{Nd} (t)				3.21			3.89			4.21		

Note: Data with ^, * and # are from Zhang et al. (2013b), Thanh et al. (2014) and Hieu et al. (2017), respectively.

Table S2. SIMS and LA-ICPMS zircon U-Pb dating results for the mafic, plagiogranitic and associated granitic host rocks along the Song Ma tectonic zone in North Laos

Spot	Th/U	Isotopic ratios						Apparent age (Ma)					
		$^{207}\text{Pb}/^{206}\text{Pb}$	$\pm\%$	$^{207}\text{Pb}/^{235}\text{U}$	$\pm\%$	$^{206}\text{Pb}/^{238}\text{U}$	$\pm\%$	$^{207}\text{Pb}/^{206}\text{Pb}$	$\pm\sigma$	$^{207}\text{Pb}/^{235}\text{U}$	$\pm\sigma$	$^{206}\text{Pb}/^{238}\text{U}$	$\pm\sigma$
15NL-57A (SIMS) Representative of Group 1 plagioclase amphibolite with N-MORB-like geochemical affinity													
15NL57A@01	0.78	0.05081	3.94	0.39973	4.30	0.0571	1.73	232	89	341	13	358	6
15NL57A@02	0.46	0.04922	4.18	0.39417	4.56	0.0581	1.82	158	95	337	13	364	6
15NL57A@03	0.19	0.05363	0.63	0.40924	2.13	0.0553	2.03	355	14	348	6	347	7
15NL57A@04	0.17	0.05321	0.39	0.40979	2.07	0.0559	2.03	338	9	349	6	350	7
15NL57A@05	0.53	0.05383	1.42	0.44443	2.20	0.0599	1.67	364	32	373	7	375	6
15NL57A@06	0.21	0.05213	1.73	0.39418	2.33	0.0548	1.56	291	39	337	7	344	5
Spot	Th/U	$^{207}\text{Pb}/^{206}\text{Pb}$	$\pm\sigma$	$^{207}\text{Pb}/^{235}\text{U}$	$\pm\sigma$	$^{206}\text{Pb}/^{238}\text{U}$	$\pm\sigma$	$^{207}\text{Pb}/^{206}\text{Pb}$	$\pm\sigma$	$^{207}\text{Pb}/^{235}\text{U}$	$\pm\sigma$	$^{206}\text{Pb}/^{238}\text{U}$	$\pm\sigma$
15NL-57C (LA-ICPMS) Representative of Group 1 plagioclase amphibolite with N-MORB-like geochemical affinity													
15NL-57C-01	0.80	0.05326	0.00403	0.42376	0.03146	0.05775	0.00123	340	162	359	22	362	8
15NL-57C-02	0.17	0.05309	0.00184	0.42215	0.0163	0.05769	0.00164	333	77	358	12	362	10
15NL-57C-03	0.11	0.05453	0.00337	0.45221	0.02754	0.0602	0.00115	393	133	379	19	377	7
15NL-57C-04	0.16	0.05094	0.00194	0.40755	0.01706	0.05806	0.00170	238	86	347	12	364	10
15NL-57C-05	0.11	0.05135	0.00207	0.40924	0.01788	0.05784	0.00171	257	90	348	13	363	10
15NL-57C-06	0.58	0.05144	0.00193	0.41405	0.01556	0.05842	0.00089	261	84	352	11	366	5
15NL-57C-07	0.19	0.05906	0.00220	0.47038	0.0196	0.0582	0.00169	570	79	392	14	365	10
15NL-57C-08	0.14	0.05827	0.00312	0.46596	0.02512	0.05805	0.00158	539	117	388	17	364	10
15NL-57C-09	0.64	0.05596	0.00214	0.45179	0.01782	0.05862	0.0015	450	83	379	12	367	9
15NL-57C-10	0.45	0.05698	0.00238	0.46904	0.02014	0.05976	0.00156	490	91	391	14	374	9
15NL-57C-11	0.60	0.0605	0.0022	0.50582	0.01916	0.0607	0.00156	621	78	416	13	380	10
15NL-57C-12	0.75	0.05442	0.00238	0.43251	0.01974	0.05768	0.00158	389	96	365	14	362	10
15NL-57X (LA-ICPMS) Representative of granitic wall rock													
15NL-57X -1	1.20	0.05537	0.00301	0.31364	0.01683	0.04111	0.00073	427	117	277	13	260	5
15NL-57X -2	0.73	0.05571	0.00134	0.31506	0.00782	0.04105	0.00057	440	52	278	6	259	4
15NL-57X -3	0.74	0.052	0.00122	0.29287	0.00715	0.04088	0.00056	285	53	261	6	258	3
15NL-57X -4	0.52	0.04974	0.00188	0.28371	0.01076	0.0414	0.00063	183	86	254	9	262	4
15NL-57X -5	0.58	0.05317	0.00141	0.30232	0.00822	0.04126	0.00058	336	59	268	6	261	4
15NL-57X -6	0.76	0.0499	0.00195	0.28073	0.01098	0.04083	0.00063	191	89	251	9	258	4

15NL-57X -7	0.84	0.05221	0.00188	0.29309	0.0106	0.04074	0.00062	295	80	261	8	257	4
15NL-57X -8	0.60	0.05365	0.00183	0.29869	0.01027	0.0404	0.00061	356	75	265	8	255	4
15NL-57X -9	0.58	0.06088	0.00156	0.35101	0.00926	0.04185	0.00059	635	54	306	7	264	4
15NL-57X -10	0.68	0.05447	0.00195	0.30755	0.01107	0.04098	0.00063	390	78	272	9	259	4
15NL-57X -11	0.51	0.05364	0.00191	0.30718	0.01097	0.04156	0.00063	356	78	272	9	263	4
15NL-57X -12	0.66	0.05168	0.00148	0.29365	0.00859	0.04124	0.0006	271	64	261	7	261	4
15NL-57X -13	0.45	0.04844	0.00185	0.27636	0.01055	0.04141	0.00064	121	87	248	8	262	4
15NL-57X -14	0.41	0.05108	0.00145	0.29295	0.00848	0.04163	0.0006	244	64	261	7	263	4
15NL-57X -15	0.75	0.04977	0.00212	0.28356	0.01202	0.04135	0.00066	184	96	254	10	261	4
15NL-57X -16	0.67	0.05565	0.00206	0.31156	0.01155	0.04063	0.00063	438	80	275	9	257	4
15NL-57X -17	0.51	0.05279	0.00219	0.30067	0.01244	0.04134	0.00067	320	92	267	10	261	4
15NL-57X -18	0.46	0.05353	0.00186	0.30125	0.01054	0.04085	0.00062	351	77	267	8	258	4
15NL-57X -19	0.63	0.05111	0.00164	0.28786	0.00934	0.04088	0.00061	246	72	257	7	258	4
15NL-57X -20	0.66	0.05523	0.00226	0.31215	0.01276	0.04102	0.00066	421	89	276	10	259	4
15NL-55A (LA-ICPMS) Representative of Group 2 gabbro-diorite resembling to island-arc igneous rocks													
15NL-55A-01	0.90	0.06941	0.0014	0.99048	0.02059	0.10363	0.00135	911	41	699	11	636	8
15NL-55A-02	0.15	0.06221	0.00125	0.63009	0.01308	0.07355	0.00096	681	42	496	8	458	6
15NL-55A-03	1.36	0.05729	0.00115	0.33815	0.00703	0.04286	0.00056	502	44	296	5	271	3
15NL-55A-04	0.91	0.05164	0.00195	0.29726	0.01051	0.04247	0.00055	333	82	264	8	268	3
15NL-55A-05	0.39	0.24652	0.00426	21.16071	0.38449	0.62324	0.00806	3163	27	3146	18	3123	32
15NL-55A-06	0.84	0.06097	0.00176	0.53821	0.01553	0.06409	0.00089	638	61	437	10	401	5
15NL-55A-07	0.16	0.05938	0.00134	0.74314	0.01716	0.09086	0.00120	581	48	564	10	561	7
15NL-55A-08	0.69	0.11046	0.00237	4.95613	0.10865	0.32574	0.00437	1807	38	1812	19	1818	21
15NL-55A-10	0.46	0.05352	0.0018	0.31814	0.01066	0.04316	0.00062	351	74	281	8	272	4
15NL-55A-11	0.97	0.05332	0.00266	0.31547	0.0155	0.04295	0.00072	342	109	278	12	271	4
15NL-55A-12	0.95	0.06515	0.00201	1.08439	0.0333	0.12083	0.00174	779	63	746	16	735	10
15NL-55A-13	0.28	0.14814	0.00347	8.24304	0.19553	0.40392	0.00553	2325	40	2258	21	2187	25
15NL-55A-14	0.45	0.05601	0.00325	0.3306	0.01878	0.04284	0.00079	453	124	290	14	270	5
15NL-55A-15	0.75	0.06519	0.00569	0.6646	0.0566	0.074	0.00182	781	173	517	35	460	11
15NL-55A-16	0.77	0.05061	0.00194	0.29921	0.01138	0.04293	0.00064	223	86	266	9	271	4
15NL-55A-17	0.68	0.05218	0.00257	0.30174	0.01414	0.04241	0.00065	300	145	268	11	268	4
15NL-55A-18	0.12	0.06529	0.00171	0.92643	0.02441	0.103	0.00142	784	54	666	13	632	8

15NL-55A-19	0.14	0.0684	0.0022	1.14182	0.03643	0.12116	0.00178	881	65	773	17	737	10
15NL-55A-20	0.18	0.10964	0.00315	4.30429	0.12297	0.28494	0.00413	1793	51	1694	24	1616	21
15NL-55A-21	0.75	0.05477	0.00354	0.45822	0.02913	0.06073	0.00115	403	138	383	20	380	7
15NL-55A-22	0.23	0.17915	0.00342	12.25996	0.24464	0.49673	0.00648	2645	31	2625	19	2600	28
15NL-55A-23	1.16	0.05633	0.00164	0.45544	0.01337	0.05868	0.00082	465	64	381	9	368	5
15NL-55A-24	0.65	0.11485	0.00237	5.09423	0.10912	0.32193	0.00428	1878	37	1835	18	1799	21
15NL-55A-25	0.18	0.06176	0.00175	0.77367	0.02215	0.09092	0.00127	666	60	582	13	561	8
15NL-55A-26	0.15	0.06231	0.00138	0.59813	0.01368	0.06967	0.00093	685	47	476	9	434	6
15NL-55A-27	0.41	0.05557	0.00392	0.43279	0.02994	0.05653	0.00115	435	150	365	21	355	7
15NL-59A (LA-ICPMS) Representative of Group 2 gabbro-diabase resembling to island-arc igneous rocks													
15NL-59A-01	1.39	0.10805	0.00257	4.40635	0.10605	0.29606	0.00410	1767	43	1714	20	1672	20
15NL-59A-02	0.12	0.06228	0.00137	0.60027	0.01357	0.06998	0.00091	684	46	477	9	436	6
15NL-59A-03	0.44	0.05183	0.00143	0.30461	0.00862	0.04265	0.00063	278	62	270	7	269	4
15NL-59A-04	0.64	0.06546	0.00173	0.64243	0.01716	0.07124	0.00097	789	55	504	11	444	6
15NL-59A-05	0.51	0.05578	0.00146	0.32556	0.0087	0.04235	0.00061	443	57	286	7	267	4
15NL-59A-06	1.01	0.05079	0.00167	0.30046	0.00983	0.04292	0.00048	232	76	267	8	271	3
15NL-59A-07	0.98	0.04960	0.00180	0.28893	0.01030	0.04233	0.00051	176	79	258	8	267	3
15NL-59A-08	0.38	0.05645	0.00219	0.47178	0.01824	0.06066	0.00094	469	85	392	13	380	6
15NL-59A-09	0.70	0.04665	0.00220	0.27671	0.01216	0.04343	0.00065	32	111	248	10	274	4
15NL-59A-10	0.69	0.11041	0.00207	4.76621	0.09308	0.31339	0.00404	1806	34	1779	16	1757	20
15NL-59A-11	0.54	0.05765	0.00379	0.34341	0.02076	0.04347	0.00069	517	144	300	16	274	4
15NL-59A-12	0.75	0.04794	0.00301	0.27697	0.01466	0.04309	0.00068	95	144	248	12	272	4
15NL-59A-13	0.12	0.05808	0.00202	0.33728	0.01179	0.04214	0.00066	532	75	295	9	266	4
15NL-59A-14	0.37	0.05055	0.002	0.29784	0.01176	0.04276	0.00064	220	89	265	9	270	4
15NL-59A-15	0.58	0.05520	0.00196	0.41627	0.01475	0.05474	0.0008	420	77	353	11	344	5
15NL-59A-16	0.30	0.05264	0.00217	0.32389	0.01296	0.04463	0.00043	313	96	285	10	281	3
15NL-59A-17	0.49	0.05297	0.00341	0.30505	0.01736	0.04352	0.00074	328	151	270	14	275	5
15NL-59A-18	0.56	0.05021	0.00131	0.29175	0.00782	0.04217	0.00061	205	59	260	6	266	4
15NL-59A-19	0.61	0.05298	0.00276	0.31152	0.01486	0.04297	0.00055	328	85	275	12	271	3
15NL-59A-20	0.68	0.05029	0.00225	0.29640	0.01269	0.04294	0.00062	209	104	264	10	271	4
15NL-59A-21	0.61	0.05277	0.00351	0.30745	0.01753	0.04300	0.00069	320	149	272	14	271	4
15NL-59A-22	1.65	0.11277	0.00218	4.78837	0.09604	0.30825	0.00401	1845	35	1783	17	1732	20

15NL-59A-23	0.12	0.05490	0.00112	0.46353	0.00977	0.06129	0.00079	408	45	387	7	384	5
15NL-53B ₁ (LA-ICPMS) Representative of Group 3 plagiogranite with positive $\epsilon_{Nd}(t)$ values													
15NL-53B ₁ -01	0.31	0.0548	0.0026	0.30877	0.01426	0.04086	0.00045	404	109	273	11	258	3
15NL-53B ₁ -02	0.85	0.05181	0.00246	0.29026	0.01296	0.04153	0.00062	276	112	259	10	262	4
15NL-53B ₁ -03	0.41	0.05381	0.00235	0.30884	0.01302	0.04169	0.00057	363	70	273	10	263	4
15NL-53B ₁ -04	0.66	0.04872	0.00258	0.27853	0.01407	0.04172	0.00063	200	73	249	11	264	4
15NL-53B ₁ -05	0.22	0.05181	0.00176	0.29522	0.00995	0.04134	0.00069	277	47	263	8	261	4
15NL-53B ₁ -06	0.44	0.05466	0.00262	0.32105	0.01618	0.04222	0.00064	398	86	283	12	267	4
15NL-53B ₁ -07	0.43	0.05315	0.00256	0.29751	0.01416	0.04061	0.0007	335	105	265	11	257	4
15NL-53B ₁ -08	0.49	0.05038	0.00238	0.28344	0.01297	0.04119	0.00059	213	79	253	10	260	4
15NL-53B ₁ -09	0.42	0.05347	0.00213	0.30749	0.01234	0.04188	0.00062	349	64	272	10	264	4
15NL-53B ₁ -10	0.69	0.05223	0.00259	0.29359	0.01442	0.04152	0.00063	295	108	261	11	262	4
15NL-53B ₁ -11	0.40	0.05465	0.00267	0.30956	0.0146	0.04108	0.00051	398	112	274	11	260	3
15NL-53B ₁ -12	0.42	0.05418	0.00258	0.30342	0.0136	0.04129	0.00057	378	76	269	11	261	4
15NL-53B ₄ (LA-ICPMS) Representative of Group 3 plagiogranite with positive $\epsilon_{Nd}(t)$ values													
15NL-53B ₄ -01	0.61	0.04980	0.00145	0.28196	0.00841	0.04109	0.00061	186	67	252	7	260	4
15NL-53B ₄ -02	0.28	0.06080	0.00201	0.3398	0.01119	0.04056	0.00062	632	70	297	8	256	4
15NL-53B ₄ -03	0.59	0.05203	0.00128	0.28938	0.00725	0.04037	0.00057	287	55	258	6	255	4
15NL-53B ₄ -04	0.57	0.05275	0.00148	0.30418	0.00874	0.04184	0.00062	318	63	270	7	264	4
15NL-53B ₄ -05	0.56	0.05722	0.00137	0.32158	0.00801	0.04078	0.00059	500	53	283	6	258	4
15NL-53B ₄ -06	0.66	0.05356	0.00115	0.29768	0.00674	0.04032	0.00057	353	47	265	5	255	4
15NL-53B ₄ -07	0.61	0.0506	0.00127	0.28922	0.00752	0.04147	0.0006	223	57	258	6	262	4
15NL-53B ₄ -08	0.58	0.05398	0.00141	0.29757	0.00790	0.04000	0.00057	370	57	265	6	253	4
15NL-53B ₄ -09	0.17	0.05178	0.00143	0.30018	0.00842	0.04206	0.00061	276	62	267	7	266	4
15NL-53B ₄ -10	0.58	0.06120	0.00154	0.34114	0.00875	0.04045	0.00058	646	53	298	7	256	4
15NL-53B ₄ -11	0.51	0.04995	0.00127	0.27856	0.00722	0.04047	0.00058	193	58	250	6	256	4
15NL-53B ₄ -12	0.56	0.04775	0.00130	0.2703	0.00757	0.04108	0.00060	86	64	243	6	260	4
15NL-53B ₄ -13	0.62	0.05028	0.00132	0.28246	0.00755	0.04076	0.00059	208	60	253	6	258	4
15NL-53B ₄ -14	0.43	0.04996	0.00132	0.27944	0.00749	0.04058	0.00058	193	60	250	6	257	4

Table S3. Zircon in-situ Hf and O isotopic analytical results for the mafic and plagiogranitic rocks along the Song Ma tectonic zone in North Laos

analytical spot	Apparent age (Ma)	$^{176}\text{Hf}/^{177}\text{Hf}$	2 σ	$^{176}\text{Yb}/^{177}\text{Hf}$	$^{176}\text{Lu}/^{177}\text{Hf}$	$\epsilon_{\text{Hf}}(t)$	2 σ	T _{DM}	$\delta^{18}\text{O}$	2 σ
15NL-57A Representative of Group 1 plagioclase amphibolite with N-MORB-like geochemical affinity										
15NL-57A-01	358	0.282869	0.000019	0.062950	0.002503	10.7	0.7	566	5.54	0.17
15NL-57A-02	364	0.282731	0.000028	0.065453	0.002314	6.0	1.0	765	5.26	0.20
15NL-57A-03	347	0.282690	0.000025	0.034042	0.001194	4.5	0.9	800	5.42	0.25
15NL-57A-04	350	0.282661	0.000029	0.065468	0.002253	3.3	1.0	865	5.32	0.21
15NL-57A-05	375	0.282763	0.000025	0.052108	0.001997	7.4	0.9	712	5.45	0.27
15NL-55A Representative of Group 2 gabbro-diabase resembling to island-arc igneous rocks										
15NL-55A-03	271	0.282712	0.000043	0.110686	0.003768	3.2	1.5	825	7.21	0.15
15NL-55A-04	268	0.282595	0.000020	0.037097	0.001370	-0.6	0.7	939	7.10	0.24
15NL-55A-06	401	0.282376	0.000036	0.009595	0.000385	-5.3	1.3	1217		
15NL-55A-10	272	0.282677	0.000020	0.028252	0.001065	2.4	0.7	815	6.61	0.26
15NL-55A-11	271	0.282596	0.000018	0.033207	0.001226	-0.5	0.7	934	7.63	0.23
15NL-55A-12	735	0.281934	0.000014	0.019729	0.000662	-13.8	0.5	1837		
15NL-55A-15	460	0.282222	0.000034	0.032679	0.001098	-9.7	1.2	1456		
15NL-55A-16	271	0.282499	0.000018	0.010411	0.000396	-3.8	0.6	1048	7.20	0.33
15NL-55A-17	268	0.282513	0.000020	0.012064	0.000441	-3.4	0.7	1030	6.55	0.35
15NL-55A-18	632	0.282109	0.000020	0.040179	0.001453	-10.1	0.7	1629		
15NL-55A-19	737	0.281936	0.000019	0.051127	0.001897	-14.3	0.7	1895		
15NL-55A-21	380	0.282358	0.000018	0.028089	0.001094	-6.6	0.6	1266		
15NL-55A-23	368	0.282356	0.000016	0.054747	0.002030	-7.1	0.6	1301		
15NL-55A-25	561	0.282130	0.000019	0.009312	0.000303	-10.5	0.7	1552		
15NL-55A-27	355	0.282393	0.000025	0.042240	0.001555	-6.0	0.9	1232		

15NL-53B ₁ Representative of Group 3 plagiogranite with positive $\epsilon_{Nd}(t)$ values										
15NL-53B ₁ -01	258	0.282970	0.000025	0.030467	0.001151	12.5	0.9	401	6.37	0.27
15NL-53B ₁ -02	262	0.282898	0.000019	0.032600	0.001153	10.0	0.7	504	6.55	0.35
15NL-53B ₁ -03	263	0.282923	0.000028	0.023256	0.000848	11.0	1.0	465	6.47	0.27
15NL-53B ₁ -04	264	0.282916	0.000034	0.031946	0.001105	10.7	1.2	478	5.93	0.20
15NL-53B ₁ -05	261	0.282875	0.000024	0.009676	0.000290	9.3	0.9	525		
15NL-53B ₁ -06	267	0.282950	0.000024	0.029666	0.001082	12.0	0.8	429		
15NL-53B ₁ -07	257	0.282875	0.000019	0.026235	0.000962	9.1	0.7	533		
15NL-53B ₁ -08	260	0.282847	0.000030	0.025856	0.000915	8.2	1.1	573		
15NL-53B ₁ -10	262	0.282921	0.000037	0.045644	0.001607	10.8	1.3	477		
15NL-53B ₁ -11	260	0.282944	0.000036	0.030991	0.001187	11.6	1.3	438		
15NL-53B ₄ Representative of Group 3 plagiogranite with positive $\epsilon_{Nd}(t)$ values										
15NL-53B ₄ -01	260	0.282921	0.000029	0.035648	0.001281	10.8	1.0	472	6.09	0.27
15NL-53B ₄ -02	256	0.283004	0.000025	0.031918	0.001221	13.6	0.9	353		
15NL-53B ₄ -03	255	0.282976	0.000019	0.017370	0.000652	12.7	0.7	387	6.00	0.42
15NL-53B ₄ -04	264	0.282957	0.000028	0.019682	0.000743	12.2	1.0	415	6.01	0.31
15NL-53B ₄ -05	258	0.282965	0.000021	0.041355	0.001349	12.3	0.7	410		
15NL-53B ₄ -06	255	0.282980	0.000031	0.029090	0.001046	12.8	1.1	386	6.12	0.29
15NL-53B ₄ -07	262	0.282882	0.000031	0.049294	0.001729	9.4	1.1	535		
15NL-53B ₄ -08	253	0.282957	0.000022	0.031679	0.001196	11.9	0.8	420	6.13	0.30
15NL-53B ₄ -09	266	0.282970	0.000025	0.022629	0.000862	12.7	0.9	398	5.99	0.16
15NL-53B ₄ -10	256	0.282973	0.000019	0.031803	0.001113	12.6	0.7	396		
15NL-53B ₄ -11	256	0.282929	0.000024	0.027169	0.000966	11.0	0.8	458		
15NL-53B ₄ -12	260	0.282852	0.000012	0.023287	0.000910	8.4	0.4	566		