

**Table S2:** Mineral chemistry (wt.%) and composition of plagioclase and pyroxenes from Andaman pillows.

	CCD1									CCTJ								
	12 / 1	13 / 1	15 / 1	16 / 1	17 / 1	18 / 1	19 / 1	22 / 1	23 / 1	1 / 1	3 / 1	4 / 1	5 / 1	7 / 1	8 / 1	9 / 1	25 / 1	2 / 1
SiO <sub>2</sub>	42.99	69.13	40.22	68.83	70.69	43.42	43.65	50.01	36.57	65.75	66.74	60.82	65.58	62.37	66.70	68.10	65.65	54.41
TiO <sub>2</sub>	0.01	0.00	0.00	0.00	0.02	0.07	0.04	0.07	0.00	0.01	0.00	0.06	0.00	0.04	0.00	0.03	0.02	0.06
Al <sub>2</sub> O <sub>3</sub>	29.10	20.18	30.30	20.20	21.20	21.42	23.98	29.56	23.05	22.70	20.85	21.09	21.54	21.86	21.24	21.18	20.83	20.91
Cr <sub>2</sub> O <sub>3</sub>	0.04	0.00	0.00	0.00	0.02	0.00	0.01	0.01	0.04	0.05	0.00	0.00	0.01	0.05	0.00	0.00	0.00	0.00
FeO	0.20	0.10	0.14	0.20	0.44	2.85	0.21	0.83	6.73	0.28	0.57	2.08	0.28	1.80	0.25	0.24	0.26	4.10
MnO	0.00	0.01	0.01	0.03	0.02	0.03	0.01	0.04	0.06	0.02	0.06	0.08	0.00	0.03	0.00	0.00	0.00	0.16
MgO	0.00	0.01	0.00	0.01	0.11	0.77	0.00	0.33	5.52	0.05	0.12	0.64	0.08	0.96	0.04	0.01	0.00	1.48
CaO	11.07	0.67	11.93	0.85	0.54	24.61	26.68	14.49	18.94	1.36	1.21	5.30	1.49	1.64	1.74	1.26	1.74	8.79
Na <sub>2</sub> O	3.97	12.24	4.31	12.11	12.22	0.23	0.17	3.56	0.04	9.83	11.04	9.68	11.03	8.50	11.46	12.15	11.57	7.63
K <sub>2</sub> O	0.00	0.09	0.02	0.08	0.34	0.00	0.00	0.09	0.07	1.00	0.60	0.24	0.69	2.56	0.24	0.18	0.03	0.52
End-member %																		
An	60.66	2.93	60.40	3.74	2.35	98.34	98.85	68.91	99.16	6.68	5.53	22.94	6.68	8.15	7.64	5.37	7.66	37.87
Ab	39.34	96.63	39.46	95.85	95.90	1.66	1.15	30.60	0.39	87.47	91.21	75.83	89.63	76.67	91.11	93.70	92.21	59.45
Or	0.00	0.45	0.14	0.41	1.76	0.00	0.00	0.49	0.46	5.85	3.26	1.24	3.69	15.18	1.25	0.93	0.14	2.68

**Supplementary Table 2 contd.:**

	CCTJ			CCTJ										CCPB					
	6 / 1	19 / 1	20 / 1	21 / 1	22 / 1	23 / 1	24 / 1	30 / 1	31 / 1	32 / 1	33 / 1	34 / 1	1 / 1	2 / 1	3 / 1	4 / 1	5 / 1	6 / 1	
SiO <sub>2</sub>	63.46	67.11	58.84	67.58	67.32	66.13	64.38	66.98	50.29	64.89	64.09	65.82	62.20	66.33	66.06	64.72	55.53	58.48	
TiO <sub>2</sub>	0.03	0.00	0.00	0.01	0.00	0.07	0.06	0.04	0.62	0.08	0.02	0.00	0.04	0.00	0.03	0.05	0.19	0.17	
Al <sub>2</sub> O <sub>3</sub>	20.65	20.21	20.85	19.97	21.25	19.71	21.49	20.08	3.58	20.58	20.95	20.51	23.75	20.20	20.25	21.59	25.92	23.99	
Cr <sub>2</sub> O <sub>3</sub>	0.00	0.00	0.00	0.00	0.04	0.00	0.01	0.01	0.99	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	
FeO	1.80	0.15	4.04	0.19	0.18	0.76	0.47	0.26	5.84	0.54	1.02	0.49	0.37	0.23	0.43	0.40	1.20	0.87	
MnO	0.21	0.00	0.51	0.02	0.00	0.06	0.00	0.04	0.19	0.02	0.04	0.03	0.00	0.00	0.00	0.01	0.01	0.00	
MgO	2.21	0.00	5.53	0.01	0.02	0.53	0.08	0.02	16.20	0.10	0.49	0.35	0.11	0.00	0.12	0.07	0.09	0.08	
CaO	0.97	0.60	0.94	0.48	1.29	1.47	0.90	0.62	20.15	1.97	1.57	1.19	5.40	1.05	1.40	2.72	9.66	7.55	
Na <sub>2</sub> O	11.17	12.26	9.01	12.46	11.48	11.40	10.86	12.24	0.35	11.10	10.75	11.72	8.25	11.80	11.61	11.03	6.33	7.49	
K <sub>2</sub> O	0.04	0.20	0.21	0.06	0.48	0.20	1.01	0.22	0.00	0.12	0.81	0.03	0.07	0.01	0.12	0.02	0.10	0.14	
End-member %																			
An	4.57	2.61	5.39	2.09	5.70	6.57	4.13	2.71	96.97	8.87	7.13	5.29	26.47	4.66	6.19	11.97	45.50	35.51	
Ab	95.20	96.37	93.16	97.62	91.79	92.38	90.35	96.17	3.03	90.48	88.46	94.57	73.15	95.27	93.19	87.94	53.97	63.68	
Or	0.22	1.01	1.45	0.29	2.51	1.05	5.52	1.13	0.00	0.66	4.40	0.15	0.38	0.07	0.61	0.09	0.54	0.81	

**Supplementary Table 2 contd.:**

	CCPB										
	21 / 1	22 / 1	25 / 1	26 / 1	41 / 1	42 / 1	35 / 1	36 / 1	37 / 1	39 / 1	40 / 1
SiO <sub>2</sub>	56.38	58.85	63.96	47.84	55.46	48.11	65.494	66.214	68.96	63.629	61.804
TiO <sub>2</sub>	0.11	0.12	0.05	4.19	0.13	1.73	0.014	0	0	0	0.012
Al <sub>2</sub> O <sub>3</sub>	25.50	25.09	21.89	16.70	25.88	4.28	21.261	19.926	20.85	21.88	22.939
Cr <sub>2</sub> O <sub>3</sub>	0.02	0.00	0.00	0.01	0.02	0.18	0	0	0	0.011	0
FeO	1.22	0.86	0.35	13.66	0.74	8.99	0.235	0.147	0.134	0.192	0.542
MnO	0.00	0.01	0.00	0.09	0.04	0.17	0	0.015	0.036	0.005	0.017
MgO	0.17	0.11	0.08	1.30	0.14	14.06	0.011	0	0	0.026	0.286
CaO	9.15	7.69	3.30	5.33	9.56	20.08	1.938	0.932	0.929	2.668	4.737
Na <sub>2</sub> O	6.62	8.24	10.50	6.94	6.24	0.36	11.344	11.981	9.806	10.744	9.619
K <sub>2</sub> O	0.14	0.06	0.05	0.49	0.13	0.00	0.005	0.06	0.033	0.101	0.068
End-member %											
An	42.95	33.92	14.76	28.84	45.52	96.90	8.62	4.11	4.96	12.00	21.31
Ab	56.25	65.77	84.97	67.98	53.75	3.10	91.35	95.58	94.83	87.46	78.32
Or	0.80	0.30	0.28	3.18	0.73	0.00	0.03	0.31	0.21	0.54	0.36

**Supplementary Table 2 contd.:**

	CCD1														CCTJ		
	1 / 1	2 / 1	3 / 1	4 / 1	5 / 1	6 / 1	7 / 1	8 / 1	9 / 1	10 / 1	11 / 1	14 / 1	20 / 1	21 / 1	10 / 1	11 / 1	12 / 1
SiO <sub>2</sub>	50.31	50.25	53.04	49.92	50.63	50.33	49.67	50.13	29.94	31.51	50.35	40.74	50.63	32.93	35.70	35.68	35.72
TiO <sub>2</sub>	0.82	0.95	0.31	0.90	0.61	0.82	1.07	0.85	0.02	0.00	0.72	0.03	0.05	0.00	0.26	0.28	0.42
Al <sub>2</sub> O <sub>3</sub>	4.41	4.54	2.02	4.43	4.30	4.51	4.86	4.13	15.31	16.96	4.60	30.17	29.88	14.32	18.52	19.04	18.50
Cr <sub>2</sub> O <sub>3</sub>	0.24	0.38	0.32	0.20	0.38	0.25	0.46	0.14	0.02	0.06	0.97	0.02	0.00	0.02	0.04	0.04	0.08
FeO	6.83	6.07	7.21	8.37	7.31	6.68	6.96	7.12	21.45	18.68	5.89	0.14	0.57	16.59	10.94	10.61	11.15
MnO	0.16	0.06	0.22	0.14	0.17	0.17	0.18	0.18	0.25	0.25	0.12	0.00	0.00	0.18	0.46	0.46	0.49
MgO	15.65	15.65	19.55	15.91	16.43	15.93	15.79	15.70	18.69	21.03	16.53	0.00	0.27	22.29	3.80	2.99	3.23
CaO	20.35	20.53	16.56	19.00	18.80	20.10	19.48	19.84	0.21	0.22	19.55	12.19	14.05	0.48	19.50	19.98	20.35
Na <sub>2</sub> O	0.24	0.23	0.15	0.27	0.27	0.23	0.27	0.26	0.01	0.01	0.27	4.34	3.64	0.03	0.10	0.16	0.11
End-member %																	
Wo	42.88	43.64	33.52	39.85	39.69	42.33	41.55	41.99	0.48	0.49	41.47	99.10	94.48	1.08	56.96	59.51	58.59
En	45.89	46.28	55.09	46.44	48.26	46.68	46.86	46.24	60.54	66.42	48.77	0.01	2.52	69.79	11.08	8.89	9.30
Fs	11.24	10.08	11.39	13.71	12.05	10.99	11.59	11.76	38.98	33.09	9.76	0.89	3.01	29.13	31.96	31.60	32.11

**Supplementary Table 2 contd.:**

	CCTJ									CCPB							
	13 / 1	14 / 1	15 / 1	16 / 1	17 / 1	26 / 1	27 / 1	28 / 1	29 / 1	7 / 1	8 / 1	9 / 1	10 / 1	11 / 1	12 / 1	13 / 1	14 / 1
SiO <sub>2</sub>	35.97	35.40	34.52	35.99	52.78	51.02	49.23	48.25	51.94	40.21	49.25	48.58	56.83	48.39	49.07	48.78	48.31
TiO <sub>2</sub>	0.22	0.19	0.37	0.30	0.42	0.61	1.02	1.39	0.50	1.32	1.20	1.63	0.12	1.68	1.32	1.35	1.46
Al <sub>2</sub> O <sub>3</sub>	19.33	19.57	18.36	19.50	1.85	3.19	4.81	4.10	2.25	2.44	3.88	4.44	25.68	4.32	3.10	3.90	4.19
Cr <sub>2</sub> O <sub>3</sub>	0.00	0.00	0.05	0.00	0.55	0.91	0.39	0.06	0.67	0.01	0.14	0.27	0.02	0.30	0.00	0.09	0.28
FeO	10.45	10.26	13.77	10.31	6.59	5.99	6.70	10.47	6.59	17.52	9.13	9.36	1.00	9.66	11.92	10.29	10.46
MnO	0.44	0.51	0.40	0.35	0.21	0.21	0.19	0.22	0.24	0.51	0.20	0.18	0.00	0.16	0.33	0.27	0.22
MgO	3.16	3.89	2.75	3.44	18.62	16.56	15.31	13.73	18.17	9.70	14.07	14.35	0.11	13.97	14.42	13.72	13.87
CaO	20.95	19.42	19.66	20.34	17.28	20.12	20.24	18.97	18.03	14.62	20.26	19.03	9.11	19.21	17.62	20.00	18.96
Na <sub>2</sub> O	0.09	0.12	0.12	0.08	0.23	0.31	0.30	0.32	0.23	0.37	0.35	0.33	6.90	0.36	0.29	0.34	0.39
End-member %																	
Wo	60.62	57.86	54.34	59.67	35.75	42.06	43.28	41.02	37.20	34.98	42.50	39.89	74.99	39.20	34.90	38.96	36.94
En	9.14	11.58	7.60	10.08	53.61	48.17	45.54	41.31	52.18	32.30	41.07	41.85	1.23	39.68	39.73	37.19	37.58
Fs	30.24	30.57	38.06	30.25	10.65	9.77	11.19	17.67	10.62	32.72	16.42	18.26	23.79	21.12	25.37	23.85	25.48

**Supplementary Table 2 contd.:**

	CCPB																
	15 / 1	16 / 1	17 / 1	18 / 1	19 / 1	20 / 1	23 / 1	24 / 1	27 / 1	28 / 1	29 / 1	30 / 1	31 / 1	32 / 1	33 / 1	34 / 1	38 / 1
SiO <sub>2</sub>	27.33	48.77	48.62	48.82	47.76	48.83	48.20	48.08	24.37	19.99	21.05	13.94	13.43	7.54	10.70	12.63	27.21
TiO <sub>2</sub>	0.54	1.12	1.52	1.39	1.93	1.53	1.56	1.60	0.59	0.85	0.77	1.47	1.38	1.36	1.53	1.51	0.91
Al <sub>2</sub> O <sub>3</sub>	16.56	3.08	3.45	3.39	4.42	4.60	5.19	4.92	14.54	12.24	12.76	8.47	8.15	4.30	6.38	7.63	16.17
Cr <sub>2</sub> O <sub>3</sub>	0.00	0.01	0.09	0.06	0.31	0.12	0.64	0.30	0.06	0.02	0.02	0.00	0.00	0.00	0.05	0.00	0.02
FeO	25.73	15.77	11.31	12.08	10.31	9.55	8.04	8.39	32.52	43.27	40.34	57.36	57.22	72.25	64.54	60.65	26.06
MnO	0.12	0.43	0.26	0.25	0.18	0.29	0.26	0.22	0.15	0.24	0.20	0.17	0.18	0.12	0.10	0.14	0.14
MgO	2.23	14.24	13.83	13.82	13.33	14.07	14.95	14.09	2.01	1.80	1.81	1.09	1.17	0.61	1.02	1.15	2.16
CaO	15.69	13.33	18.53	17.85	19.45	19.74	19.26	20.25	14.43	10.84	11.67	6.76	6.84	3.25	5.09	6.06	16.09
Na <sub>2</sub> O	0.10	0.52	0.37	0.34	0.34	0.37	0.34	0.37	0.04	0.12	0.09	0.26	0.12	0.09	0.05	0.07	0.10
	End-member %																
Wo	35.27	25.74	34.56	32.91	35.71	35.31	34.29	35.56	26.80	18.36	20.01	10.18	10.18	4.31	7.03	8.52	28.58
En	6.96	38.26	35.88	35.46	34.05	35.02	37.03	34.43	5.19	4.25	4.31	2.42	2.42	1.13	1.97	2.24	5.33
Fs	57.76	35.99	29.56	31.63	30.25	29.67	28.69	30.01	68.01	77.39	75.68	87.40	87.40	94.56	91.00	89.23	66.09