

Table S1. List of the events. The eruption time is taken from the eruption catalog of Sakurajima volcano provided by the Kagoshima Meteorological Office, JMA (available at https://www.jma-net.go.jp/kagoshima/vol/kazan_top.html). The repose time (interval between the eruption and the previous eruption) is also estimated from the eruption catalog.

Event Number	Date	Time	Event type	τ_p [s]	ΔP_p [Pa]	τ [s]	ΔP [Pa]	Repose time [min]
1	2011/12/19	3:20	B	0.288	2.59	0.47	127.0	633
2	2011/12/19	22:15	A	0.888	5.10	1.43	18.5	937
3	2011/12/22	4:46	C	0.000	0.00	0.90	60.8	498
4	2011/12/22	18:43	B	0.874	2.20	1.30	79.0	43
5	2011/12/26	2:35	A	0.729	4.01	0.83	85.3	24
6	2011/12/27	20:16	B	1.589	1.80	1.22	38.3	77
7	2011/12/27	21:20	B	0.883	2.38	1.36	36.7	65
8	2012/1/5	2:01	A	0.160	0.76	0.47	21.7	101
9	2012/1/5	2:15	A	0.790	1.47	1.16	27.3	14
10	2012/1/5	20:32	C	0.000	0.00	1.61	40.7	18
11	2012/1/5	20:48	B	0.167	0.11	0.33	24.0	16
12	2012/1/5	22:08	A	0.208	1.77	0.56	62.1	80
13	2012/1/7	23:54	B	0.234	1.40	0.39	120.0	288
14	2012/1/9	6:00	B	0.670	3.40	1.07	20.4	122
15	2012/1/14	4:06	B	0.187	0.89	0.95	31.8	282
16	2012/1/15	23:09	C	0.000	0.00	1.53	22.1	630
17	2012/1/22	1:59	B	0.374	5.95	0.51	148.0	633
18	2012/1/30	19:14	B	0.141	3.66	0.39	119.0	46
19	2012/2/2	1:23	A	1.337	0.99	1.02	79.9	478
20	2012/2/2	3:15	A	0.173	1.13	1.00	64.6	31
21	2012/2/2	5:45	B	0.261	1.90	0.85	67.7	150
22	2012/2/3	18:46	C	0.000	0.00	0.64	179.0	52
23	2012/2/4	1:12	C	0.000	0.00	0.64	32.4	35
24	2012/2/4	1:43	B	0.193	1.58	0.43	395.0	31
25	2012/2/8	1:02	B	0.869	4.62	0.61	167.0	512
26	2012/2/8	1:19	A	0.858	3.18	0.63	205.0	12
27	2012/2/8	2:18	A	0.669	2.85	0.97	65.0	59
28	2012/2/9	20:45	A	1.036	4.99	1.11	70.0	53
29	2012/3/7	4:32	B	0.149	0.17	1.44	36.0	217
30	2012/3/15	22:56	C	0.000	0.00	0.59	5.3	29

31	2012/4/15	4:41	C	0.000	0.00	1.01	57.6	476
32	2012/4/16	19:18	C	0.000	0.00	0.70	42.6	1365
33	2012/5/6	21:45	C	0.000	0.00	0.74	93.5	3704
34	2012/7/25	1:42	C	0.000	0.00	1.10	36.0	387
35	2012/7/25	4:45	C	0.000	0.00	1.01	41.3	183
36	2013/1/12	22:36	B	0.935	0.20	2.28	8.5	35
37	2013/2/16	23:27	A	0.848	1.28	1.17	48.1	10
38	2013/2/17	3:02	B	0.795	0.57	1.40	14.4	215
39	2013/2/24	2:11	B	0.120	0.71	0.89	47.3	63
40	2013/5/3	4:22	C	0.000	0.00	0.53	4.3	397
41	2013/5/8	2:29	B	0.336	0.75	1.08	28.6	1224
42	2013/5/13	22:11	A	0.229	0.90	0.54	70.3	1763
43	2013/5/18	1:05	C	0.000	0.00	1.88	30.0	889
44	2013/5/18	1:32	A	2.192	3.15	1.10	65.8	17
45	2013/8/4	23:30	B	0.234	0.05	0.52	16.1	477
46	2013/8/16	21:14	C	0.000	0.00	1.65	116.0	24
47	2013/9/18	23:45	C	0.000	0.00	1.24	38.8	654
48	2013/9/28	5:28	A	0.661	0.22	1.13	55.6	54
49	2013/11/7	1:38	A	1.794	1.24	0.53	176.0	36
50	2014/2/26	1:36	C	0.000	0.00	0.66	175.0	919
51	2014/3/8	1:20	B	0.367	0.51	0.59	259.0	104
52	2014/3/11	5:48	A	0.262	0.78	1.32	139.0	70
53	2014/3/23	22:53	A	0.369	0.46	1.03	103.0	435
54	2014/3/24	21:29	B	0.187	0.13	0.53	184.0	207
55	2014/3/24	22:02	A	0.962	0.96	0.88	183.0	33
56	2014/4/2	22:07	A	0.486	0.95	0.87	109.0	189
57	2014/9/12	1:35	C	0.000	0.00	0.52	166.0	15
58	2015/1/4	1:06	B	0.215	0.17	1.04	130.0	88
59	2015/1/4	6:24	B	0.131	0.13	0.54	592.0	318
60	2015/1/15	19:22	B	0.168	0.31	0.68	456.0	8
61	2015/1/17	22:38	A	0.252	0.08	1.15	25.1	2856
62	2015/1/23	20:36	A	0.898	1.82	0.91	423.0	9
63	2015/2/11	2:53	A	1.318	0.54	0.66	34.9	554
64	2015/2/11	6:01	C	0.000	0.00	1.11	35.5	188
65	2015/2/12	22:00	B	0.117	0.06	0.72	54.1	234
66	2015/3/4	2:44	C	0.000	0.00	1.38	9.7	1075
67	2015/3/20	19:53	B	0.429	0.20	0.84	35.2	1446

68	2015/3/23	2:19	A	0.149	0.04	0.42	27.8	273
69	2015/3/26	22:22	C	0.000	0.00	0.75	102.0	174
70	2015/3/26	22:53	B	0.177	0.05	1.45	152.0	31
71	2015/3/26	23:23	A	0.163	0.05	1.16	121.0	30
72	2015/3/27	1:50	A	0.225	0.03	0.30	8.7	81
73	2015/3/27	3:19	B	0.112	0.04	0.27	21.5	37
74	2015/3/27	4:03	B	0.206	0.09	0.38	30.5	28
75	2015/3/27	4:46	B	0.252	0.02	0.39	6.7	43
76	2015/3/27	22:02	B	0.178	0.03	1.16	28.2	273
77	2015/3/27	22:31	B	0.392	0.35	1.17	165.0	17
78	2015/3/27	23:18	B	0.290	0.04	0.95	18.2	47
79	2015/3/28	1:57	C	0.000	0.00	0.76	52.4	159
80	2015/3/28	2:31	A	0.415	0.46	1.33	184.0	34
81	2015/3/28	3:17	A	1.434	0.80	1.03	165.0	46
82	2015/3/28	22:58	A	0.383	0.67	0.69	382.0	208
83	2015/4/8	22:30	B	0.679	0.75	1.00	151.0	152
84	2015/4/30	20:25	C	0.000	0.00	1.69	14.0	472
85	2015/5/2	4:06	C	0.000	0.00	0.69	88.4	294
86	2015/5/5	22:28	B	0.140	0.01	1.75	21.0	113
87	2015/5/6	2:25	C	0.000	0.00	0.67	110.0	237
88	2015/5/6	3:16	B	0.415	0.27	0.78	63.1	51
89	2015/5/8	2:04	C	0.000	0.00	1.60	75.8	507
90	2015/5/25	22:35	C	0.000	0.00	0.47	80.5	233
