DR2004069

Figure DR1. Calibration curves for COSPEC (Correlation Spectrometer) at high SO_2 concentrations. Horizontal axis indicates value of COSPEC output normalized to a high-concentration standard cell of 1436 ppm·m. Vertical axis is SO_2 concentration of standard cells that used for calibration. Closed circles show results of calibration with a mask by factory standard-correlation disc, and open circles show results with high concentration mask with longer wavelength.

Table DR1. Sulfur dioxide flux data from Miyakejima volcano, Japan.

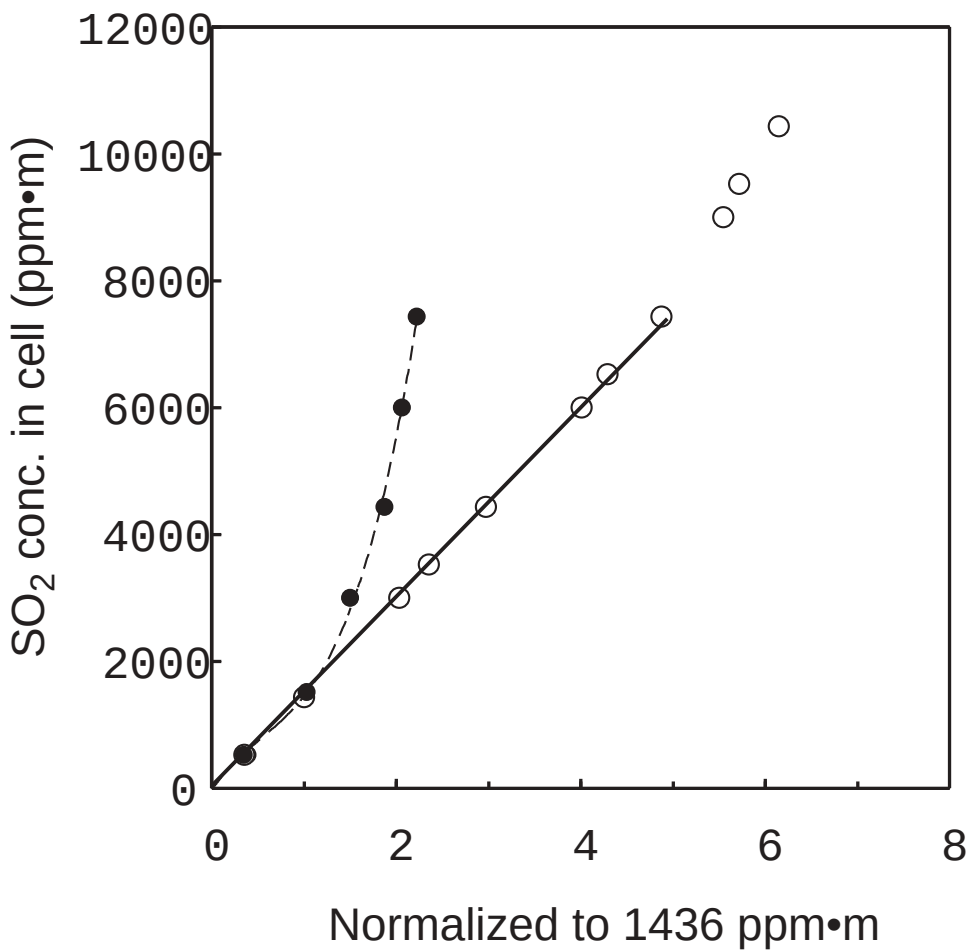

Fig. DR1 Kazahaya e

Table DR1. Sulfur dioxide flux data from Miyakejima volcano, Japan

date	SO_2 flux (t/d)	1s	1s%	highest	lowest	no.of runs	wind velocity (m/s	notes
8/26/2000	1400					1	3	*
8/27/2000	1500					1	3	*
9/1/2000	2500					1	3	**
9/3/2000	1200					1	3	**
9/9/2000	18100	9700	54	24900	11200	2	8	**
9/10/2000	12300	2800	23	8200	14300	4	5	**
9/11/2000	27500					1	3	
9/12/2000	8000	2300	29	9600	6300	2	7	
9/13/2000	10000	4200	42	13000	7000	2	4	
9/14/2000	9500	100	1	9500	9400	2	6	
9/15/2000	25200	2600	10	27000	23300	2	7	
9/16/2000	11100	6500	59	15700	6500	2	11	
9/18/2000	22700					1	8	
9/19/2000	8100	1400	17	8900	6500	3	4	
9/21/2000	43300					1	10	
9/22/2000	32900					1	6	
9/23/2000	49200					1	6	
9/25/2000	21400	3300	16	23700	19000	2	5	
9/26/2000	19700	100	0	19700	19600	2	5	
9/27/2000	20200	9200	46	26700	13700	2	8	
9/28/2000	15800	4200	27	18800	12800	2	5	
9/29/2000	23300	400	2	23600	23000	1	7	
9/30/2000	11000	1400	13	12000	10000	2	6	
10/1/2000	41300	8900	22	48100	28300	4	6	
10/2/2000	60300					1	10	
10/3/2000	21000	3500	17	25500	17700	4	10	
10/4/2000	12800	1600	12	13900	11700	2	2	
10/5/2000	47100	8600	18	55900	38700	3	4	
10/6/2000	31400	4000	13	35300	27300	3	18	
10/7/2000	29200	1600	6	30300	28000	2	6	
10/8/2000	38000	8100	21	43700	32200	2	10	
10/11/2000	40800	6300	15	38100	26000	4	5	
10/12/2000	21300	5200	24	26200	18700	3	8	

10/27/2000	59200	10000	17	73300	49700	4	6
10/28/2000	37200	100	0	37300	37100	2	10
10/31/2000	44600	7200	16	52800	41600	3	4
11/4/2000	36700					1	4
11/5/2000	31800	1200	4	32600	30500	3	10
11/8/2000	29600	3600	12	32600	25600	3	12
11/9/2000	96500					1	13
11/11/2000	29000	6400	22	33500	24500	2	10
11/12/2000	84900					1	9
11/13/2000	31500	2800	9	33400	29500	2	3
11/15/2000	15100	800	5	15600	14500	2	11
11/16/2000	104600	25000	24	122300	86900	2	18
11/21/2000	20100	2100	11	21600	18600	2	11
11/22/2000	48900	6900	14	53700	44000	2	10
11/24/2000	37300	4000	11	40100	34500	2	5
11/25/2000	36800	1800	5	38100	35500	2	3
11/26/2000	28400	4600	16	33100	24000	3	6
11/30/2000	43900	1200	3	44700	43000	2	11
12/2/2000	52500	9400	18	60000	42000	3	8
12/3/2000	21100					1	9
12/4/2000	41900	2000	5	43300	40500	2	7
12/5/2000	20400	1900	9	22000	18300	3	15
12/7/2000	199900	41200	21	229000	170700	2	10
12/13/2000	48600	11500	24	56700	40500	2	21
12/15/2000	59800	7600	13	65200	54400	2	5
12/17/2000	46800	1300	3	47700	45800	2	4
12/19/2000	53600	9800	18	64000	44600	3	17
12/23/2000	26900	5300	20	30600	23100	2	7
12/25/2000	22100	6600	30	29700	17400	3	13
12/27/2000	29000	1200	4	29700	27600	3	3
12/30/2000	75900					1	8
1/11/2001	42600					1	10
1/18/2001	45700	6000	13	52700	38300	4	15
1/29/2001	35500	15800	45	52000	20500	3	14
2/5/2001	33000					1	5
2/8/2001	24400					1	8

4/9/2001	24200					1	13
4/13/2001	21000	2000	10	23000	19000	3	19
4/19/2001	19800	1800	9	21000	18500	2	17
4/23/2001	34100					1	10
5/1/2001	12200	2100	17	15500	9700	5	15
5/7/2001	50100	21100	42	81200	36500	4	11
5/10/2001	25900	2500	10	27800	23100	3	15
5/14/2001	38500	12000	31	53300	28400	4	8
5/17/2001	32700	2800	8	35500	30000	3	15
5/21/2001	13600	1800	13	15200	11700	3	4
5/25/2001	28400	2200	8	30500	26200	3	6
5/28/2001	25300	1900	7	27000	22400	5	6
6/4/2001	19000	1500	8	20000	17900	2	7
6/7/2001	19500	5000	26	24300	12400	4	12
6/21/2001	11400	2100	18	13800	9300	4	6
6/28/2001	8300	2900	35	11000	5200	3	15
7/1/2001	11900	1300	11	14800	12300	4	19
7/4/2001	21700	10300	47	29400	10000	3	11
7/13/2001	12500	2200	18	16200	10700	6	10
7/16/2001	16500	3300	20	20700	12800	6	8
7/23/2001	13500	1800	14	14800	12200	2	10
7/27/2001	12700	1600	13	13800	11500	2	13
7/30/2001	19800	5400	27	27200	14200	4	10
8/2/2001	25000	3700	15	27600	22400	2	10
8/5/2001	10300	1900	19	11600	8900	2	10
8/9/2001	10600	600	6	11000	10100	2	3
8/16/2001	14600	1300	9	16100	13600	3	10
8/23/2001	13700	3300	24	16000	9100	4	15
8/24/2001	15600	3000	19	19000	13400	3	8
8/27/2001	14300	1900	14	16000	12200	3	4
8/30/2001	13900	800	6	14900	13200	4	4
9/5/2001	9400	1900	20	15900	13200	2	7
9/25/2001	6300	2000	32	7700	4000	3	3
9/27/2001	11500	1900	17	14600	10100	4	3
9/28/2001	31200	5900	19	35400	27000	2	10
10/4/2001	40900					1	10

12/20/2001	12400	2400	19	14500	9000	4	11
12/26/2001	16500	3800	23	19200	13800	2	8
1/9/2002	8600	400	5	8900	8300	2	22
1/15/2002	8700	600	7	9300	8100	3	8
1/18/2002	25200	3700	15	29500	22900	3	7
1/23/2002	10500	100	1	10500	10400	3	14
1/30/2002	6100	1200	20	7700	4700	5	15
2/6/2002	15800	1800	11	17000	14500	2	5
2/14/2002	8800	2400	27	10500	7100	2	5
2/27/2002	14200	400	3	14500	13900	2	7
3/4/2002	21400	400	2	21600	21100	2	5
3/13/2002	18000					1	8
3/19/2002	8100	1000	13	8700	6900	3	8
3/25/2002	21100	3300	16	23400	18700	2	13
4/5/2002	7400	1400	19	8400	6400	2	10
4/10/2002	5400	1600	29	6500	4300	2	4
4/18/2002	7400	800	10	8100	6600	3	16
5/15/2002	17300	3400	20	19700	14900	2	7
5/30/2002	7300	1100	15	8000	6400	3	7
7/4/2002	3900	1000	26	4500	3100	3	4
7/12/2002	11000	1100	10	12200	8300	4	17
7/17/2002	12600	400	3	12800	12300	2	17
7/31/2002	9900	3300	33	13600	7400	3	15
8/7/2002	6500	1100	17	7800	5300	4	13
8/21/2002	12300		0			1	8
8/29/2002	5300	1000	18	5900	4200	3	5
9/4/2002	4700	300	6	4900	4500	2	5
10/2/2002	4000	900	22	4900	3100	4	17
10/16/2002	6000	100	2	6100	5900	3	17
10/25/2002	7800	2000	25	9200	6400	2	8
11/13/2002	4600	400	9	4900	4100	3	23
11/28/2002	8900	2200	24	10900	6600	3	10
12/18/2002	7400	1900	26	8700	6000	2	14
12/25/2002	4000	600	16	4700	3200	4	14
1/9/2003	4100					1	7
1/22/2003	4600	700	15	5100	4100	2	15

6/18/2003	5400	1000	19	7400	4400	6	8
7/9/2003	6400	1300	21	7300	5400	2	3
7/22/2003	8700	2200	25	11000	6700	3	6
7/29/2003	4200	900	21	5000	3000	4	8
8/5/2003	7200	1300	19	8100	6200	2	6
8/12/2003	7800	1700	22	8800	5800	3	12
8/20/2003	8200		0			1	4
8/25/2003	6000	900	14	7000	4800	5	9
9/16/2003	6500	1400	22	7500	5500	2	8
9/30/2003	4600	1300	28	6400	3400	4	8
10/15/2003	4600	1100	24	6100	3100	5	8
10/21/2003	7400	1500	21	9100	6100	3	10
10/30/2003	7900	800	10	8700	7100	3	8
11/4/2003	13600	1600	12	15000	11800	3	8
11/12/2003	6400	100	2	6500	6300	2	8
12/16/2003	6100	2100	3	7400	3900	2	8
12/24/2003	6400	100	2			1	18

*measured by panning method from a fixed point

**strongly underestimated due to saturation