

Table S2. Campaigns in coastal and island stations reporting iodine distribution in aerosol size fractions or aerosol iodine speciation

#	Campaign ^a	Location	Lon	Lat	Date start ^b	Date end	N	Type of data	Methods ^c	Ref.
S1a		Hilo, Hawaii, USA	-155.1	19.9	27-05-63	18-06-63	5	TI (size-segregated), IO _y	CI; INAA	(Duce et al., 1965)
S1b		Mauna Loa, Hawaii, USA (600 m)	-155.6	19.9	05-06-63	25-06-63	2			
S1c		Mauna Loa, Hawaii, USA (2000 m)	-155.6	19.9	05-06-63	25-06-63	1			
S1d		Mauna Loa, Hawaii, USA (3300 m)	-155.6	19.9	05-06-63	25-06-63	1			
S2		Cambridge, Massachusetts, USA	-71.1	42.4	31-10-64	14-11-64	10	TI (size-segregated)	CI; INAA	(Lininger et al., 1966)
S4		Hilo, Hawaii, USA	-155.1	19.9	<i>01-08-66</i>	<i>31-08-66</i>	8	TI (size-segregated)	CI; INAA	(Duce et al., 1967)
S9	SEAREX	Enewetak, Marshall Islands	162.0	11.5	18-04-79	04-08-79	27	TI (size-segregated)	CI; INAA	(Duce et al., 1983)
S14		Tokyo, Japan	139.8	35.7	14-07-83	23-03-84	9	TI, TSI, IO ₃ ⁻ (bulk)	INAA <i>? min</i>	(Tsukada et al., 1987)
S20a		Uto, Finland	21.4	59.8	29-04-91	12-05-91	35	TI (fine + coarse)	2 filters, INAA	(Jalkanen & Manninen, 1996)
S20b		Virolahti, Finland	27.7	60.6	10-06-91	30-06-91	35	TI (fine + coarse)		
S28	PSE	Alert, Canada	-62.3	82.5	22-01-92	15-04-92	85	TI (fine + coarse)	VI; INAA	(Barrie et al., 1994)
S31		Weybourne, UK	1.1	52.9	08-08-96	21-10-97	16	TI (bulk and size-segregated)	CI; INAA	(Baker et al., 2000)
S32	MAP	Mace Head, Ireland	-9.7	53.3	13-06-06	06-07-06	75	TSI, SOI, I, IO ₃ ⁻ (fine + coarse, PM _{2.5})	CI, VI; IC-ICP-MS <i>20 min</i>	(Gilfedder et al., 2008; Lai, 2008)
S34	MAP	Mace Head, Ireland	-9.7	53.3	18-06-07	02-07-07	3	TI, TSI (bulk)	TESI, INAA	(Gilfedder et al., 2010)
S35		Riso, Denmark	12.1	55.7	02-04-11	11-12-14	8	TI, TSI, SOI, I, IO ₃ ⁻ (bulk)	AMS, ICP-MS; <i>Stirring</i>	(Zhang et al., 2016)
S36		Xiangshan Gulf, Zhejiang, China	121.8	29.5	11-02-18	11-05-18	3	TSI, SOI, I, IO ₃ ⁻ (fine and bulk)	Nano-MOUDI; LCMS; ICP-MS <i>40 min</i>	(Yu et al., 2019)

^a SEAREX: Sea/Air Exchange; PSE: Polar Sunrise Experiment; MAP: Marine Aerosol Production from Natural Sources. ^b Dates in italics: the original paper does not report exact dates, only months or season. ^c The numbers in italics indicate the sonic agitation time during extraction in speciation measurements. CI: Cascade Impactor; VI: Virtual Impactor, nano-MOUDI: Nano-Microorifice Uniform Deposit Impactor; INAA: Instrumental Neutron Activation Analysis; IC: Ion Chromatography; ICP-MS: Inductively Coupled Plasma – Mass Spectrometry; AMS: Accelerator Mass Spectrometry; LC-MS: Liquid Chromatography Mass Spectrometry; TESI: Thermal extraction with spectrometric detection.

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