

Size fractionated particulate iron (Fe) data from the R/V Melville IronEx II cruise in the Equatorial Pacific Ocean in 1995 (IronEx II project)

Website: <https://www.bco-dmo.org/dataset/3154>

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Project

» [Iron Experiment II](#) (IronExII)

Program

» [Iron Synthesis](#) (FeSynth)

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Dataset Description

Size fractionated particulate Fe Data

Data Processing Description

BCO-DMO Processing Notes

Prepared by WHOI OCB-DMO from original file: FeX2 edited FE.xls

Original file was downloaded on 16June2008 from http://www.mbari.org/sofex/IronEx_II.htm

Changes made to original file:

- Parameter names edited to conform to BCO-DMO convention
- date, time, event, cast, lat, lon manually inserted from Cast Log using event in Cast Log
- "nd" inserted as no data value in blank cells
- "<" changed to "lt" in data fields

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Data Files

File
MLML_Fe.csv (Comma Separated Values (.csv), 4.49 KB) MD5:f2ba9eb018a8512b6666d9a53f7325c1
Primary data file for dataset ID 3154

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Parameters

Parameter	Description	Units
date	Date UTC	YYYYMMDD
time	Time UTC	HHMM
lat	latitude, negative denotes South	decimal degrees
lon	longitude, negative denotes West	decimal degrees
event	Unique event number (Generated by BCO-DMO)	YYYYDAYHHMM
yrday	Day of year	integer
cast	Cast id	integer
depth	Depth in meters	meters
Station	Station Number	integer
yrday_dechour	Year day and decimal hour	ddd.hh
SF6	SF6	kcounts
Diss_Fe	Diss_Fe	(tbd)
Total_point4u_Part	Total_point4u_Part	(tbd)
Total_5u_Part	Total_5u_Part	(tbd)
Total_Leach	Total_Leach	(tbd)

Total_Refractory	Total_Refractory	(tbd)
Leach_point4u	Leach_point4u	(tbd)
Refractory_point4u	Refractory_point4u	(tbd)
Leach_5u	Leach_5u	(tbd)
Refractory_5u	Refractory_5u	(tbd)

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Deployments

IronExII_MV

Website	https://www.bco-dmo.org/deployment/57830
Platform	R/V Melville
Start Date	1995-05-13
End Date	1995-06-21
Description	Cruise Summary: 5/14/95 Depart Papeete, Tahiti 5/14/95 to 5/23/95 Transit & Test stations 5/23/95 to 5/29/95 Survey for Fe release 5/29/95 to 5/30/95 Fe release #1 5/30/95 to 6/1/95 In & out sampling 6/1/95 to 6/1/95 Fe release #2 6/1/95 to 6/5/95 In & out sampling 6/5/95 to 6/5/95 Fe release #3 6/6/95 to 6/8/95 In & out sampling 6/8/95 to 6/9/95 Control patch (SF6 only), 2nd Fe patch release (0.4 nM Fe) 6/9/95 to 6/15/95 In & out sampling of all 3 patches 6/15/95 to 6/21/95 Transit to Acapulco, Mexico

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Project Information

Iron Experiment II (IronExII)

Coverage: Equatorial Pacific Ocean

One of two (see IronEx I Oct/Nov 1993) small scale iron fertilization experiments conducted in the Equatorial Pacific Ocean.

Summary:

5/14/95 Depart Papeete, Tahiti

5/14/95 to 5/23/95 Transit & Test stations

5/23/95 to 5/29/95 Survey for Fe release

5/29/95 to 5/30/95 Fe release #1

5/30/95 to 6/1/95 In & out sampling
6/1/95 to 6/1/95 Fe release #2
6/1/95 to 6/5/95 In & out sampling
6/5/95 to 6/5/95 Fe release #3
6/6/95 to 6/8/95 In & out sampling
6/8/95 to 6/9/95 Control patch (SF6 only), 2nd Fe patch release (0.4 nM Fe)
6/9/95 to 6/15/95 In & out sampling of all 3 patches
6/15/95 to 6/21/95 Transit to Acapulco, Mexico

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Program Information

Iron Synthesis (FeSynth)

Coverage: Global

The two main objectives of the Iron Synthesis program (SCOR Working Group proposal, 2005), are:

1. Data compilation: assembling a common open-access database of the *in situ* iron experiments, beginning with the first period (1993-2002; Ironex-1, Ironex-2, SOIRE, EisenEx, SEEDS-1; SOFeX, SERIES) where primary articles have already been published, to be followed by the 2004 experiments where primary articles are now in progress (EIFEX, SEEDS-2; SAGE, FeeP); similarly for the natural fertilizations S.O.JGOFS (1992), CROZEX (2004/2005) and KEOPS (2005).
2. Modeling and data synthesis of specific aspects of two or more such experiments for various topics such as physical mixing, phytoplankton productivity, overall ecosystem functioning, iron chemistry, CO₂ budgeting, nutrient uptake ratios, DMS(P) processes, and combinations of these variables and processes.

SCOR Working Group proposal, 2005. "The Legacy of *in situ* Iron Enrichments: Data Compilation and Modeling".

http://www.scor-int.org/Working_Groups/wg131.htm

See also: SCOR Proceedings Vol. 42 Concepcion, Chile October 2006, pgs: 13-16 2.3.3 Working Group on The Legacy of *in situ* Iron Enrichments: Data Compilation and Modeling.

The first objective of the Iron Synthesis program involves a data recovery effort aimed at assembling a common, open-access database of data and metadata from a series of *in-situ* ocean iron fertilization experiments conducted between 1993 and 2005. Initially, funding for this effort is being provided by the Scientific Committee on Oceanic Research (SCOR) and the U.S. National Science Foundation (NSF).

Through the combined efforts of the principal investigators of the individual projects and the staff of Biological and Chemical Oceanography Data Management Office (BCO-DMO), data currently available primarily through individuals, disparate reports and data agencies, and in multiple formats, are being collected and prepared for addition to the BCO-DMO database from which they will be freely available to the community.

As data are contributed to the BCO-DMO office, they are organized into four overlapping categories:

1. Level 1, basic metadata
(e.g., description of project/study, general location, PI(s), participants);
2. Level 2, detailed metadata and basic shipboard data and routine ship's operations
(e.g., CTDs, underway measurements, sampling event logs);
3. Level 3, detailed metadata and data from specialized observations

(e.g., discrete observations, experimental results, rate measurements) and
4. Level 4, remaining datasets
(e.g., highest level of detailed data available from each study).

Collaboration with BCO-DMO staff began in March of 2008 and initial efforts have been directed toward basic project descriptions, levels 1 and 2 metadata and basic data, with detailed and more detailed data files being incorporated as they become available and are processed.

Related file

[Program Documentation](#)

The Iron Synthesis Program is funded jointly by the Scientific Committee on Oceanic Research (SCOR) and the U.S. National Science Foundation (NSF).



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Funding

Funding Source	Award
NSF Division of Ocean Sciences (NSF OCE)	OCE-9217518
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