

**DATOS HIDROGRÁFICOS DEL ALTO GOLFO DE CALIFORNIA:  
CAMPAÑA OCEANOGRÁFICA FU0002 (24 DE FEBRERO AL 1 DE  
MARZO DEL 2000)**

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## **Resumen**

Se muestran los datos de 161 estaciones de CTD realizadas del 24 de febrero al 1 de marzo del 2000 durante la campaña oceanográfica FU0002, a bordo del Buque Oceanográfico "Francisco de Ulloa" frente a las costas de Baja California y Sonora en el Alto Golfo de California. Esta información es parte de los Proyectos financiados por CONACyT *Circulación en el Alto Golfo de California (Contrato No. 25555-T9712)* y *Efectos de el Niño sobre la hidrografía del Alto Golfo de California (Contrato No. 026PÑ-1297)*.

En este reporte se presentan, para cada estación de CTD, perfiles verticales de temperatura, salinidad y densidad, además de listados de estas variables a profundidades seleccionadas. También se incluyen las variables meteorológicas medidas durante cada estación hidrográfica.

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## Lista de Participantes

Participante	Institución	Puesto
Miguel Fernando Lavín Peregrina (Jefe de Campaña)	C.I.C.E.S.E.	Investigador
Victor Manuel Godínez Sandoval	C.I.C.E.S.E.	Técnico Titular “C”
Salvador Sánchez Mancilla	C.I.C.E.S.E.	Técnico Titular “A”
Rafael Ramírez Mendoza	C.I.C.E.S.E.	Técnico Titular “A”
Juan Francisco Moreno Higareda	C.I.C.E.S.E.	Técnico Asociado “B”
Edwyna Nieto García	C.I.C.E.S.E.	Estudiante
Ana Julia Abascal Santillana	C.I.C.E.S.E.	Estudiante
Fátima Maciel Carrillo Gonzalez	C.I.C.E.S.E.	Estudiante
Omar Gutiérrez Gutiérrez	C.I.C.E.S.E.	Estudiante
David Alberto Rivas Camargo	C.I.C.E.S.E.	Estudiante
Gilberto Jerónimo Moreno	C.I.C.E.S.E.	Estudiante
Adrián Torales Rodríguez	C.I.C.E.S.E.	Estudiante

## 1. INTRODUCCIÓN

Del 24 de febrero al 1 de marzo del 2000 se realizó el crucero oceanográfico FU0002 a bordo del Buque Oceanográfico "Francisco de Ulloa", principalmente en el Alto Golfo de California frente a las costas de Baja California y Sonora. Este crucero forma parte de los Proyectos financiado por CONACyT *Circulación en el Alto Golfo de California (Contrato No. 25555-T9712)* y *Efectos de el Niño sobre la hidrografía del Alto Golfo de California (Contrato No. 026PÑ-1297)*, en el cual participan investigadores del CICESE.

El objetivo general de estos proyectos es realizar el primer estudio de corrientes en el Alto Golfo de California. Más específicamente, se pretende documentar la oceanografía física de la región y el efecto del fenómeno El Niño 1997-1998 sobre la hidrografía.

Durante la campaña FU0002 se hicieron 161 lances con CTD, y se recuperaron de 6 anclajes de corrientímetros y una boya meteorológica. Así mismo, en forma continua durante toda la campaña se obtuvieron datos superficiales de temperatura, salinidad, fluorometría y datos de corrientes horizontales por medio de un ADCP/VM montado en el casco del buque. También se obtuvo información de nutrientes disueltos.

En este informe se presenta únicamente la información hidrográfica, o sea los campos de distribución de temperatura, salinidad y densidad en la columna de agua. También se reportan los datos meteorológicos obtenidos en cada estación hidrográfica. La información recabada por los corrientímetros fue reportada por Godínez *et al.* (2000).

## 2. ÁREA DE ESTUDIO

Los datos reportados en este trabajo fueron tomados en el Alto Golfo de California (Figura 1), entre los 30° y 32° de latitud Norte y 113° a 115° de longitud Oeste. En la Tabla I se resume información sobre la localización geográfica, fecha de ocupación, profundidad del fondo y del lance de las estaciones de CTD.

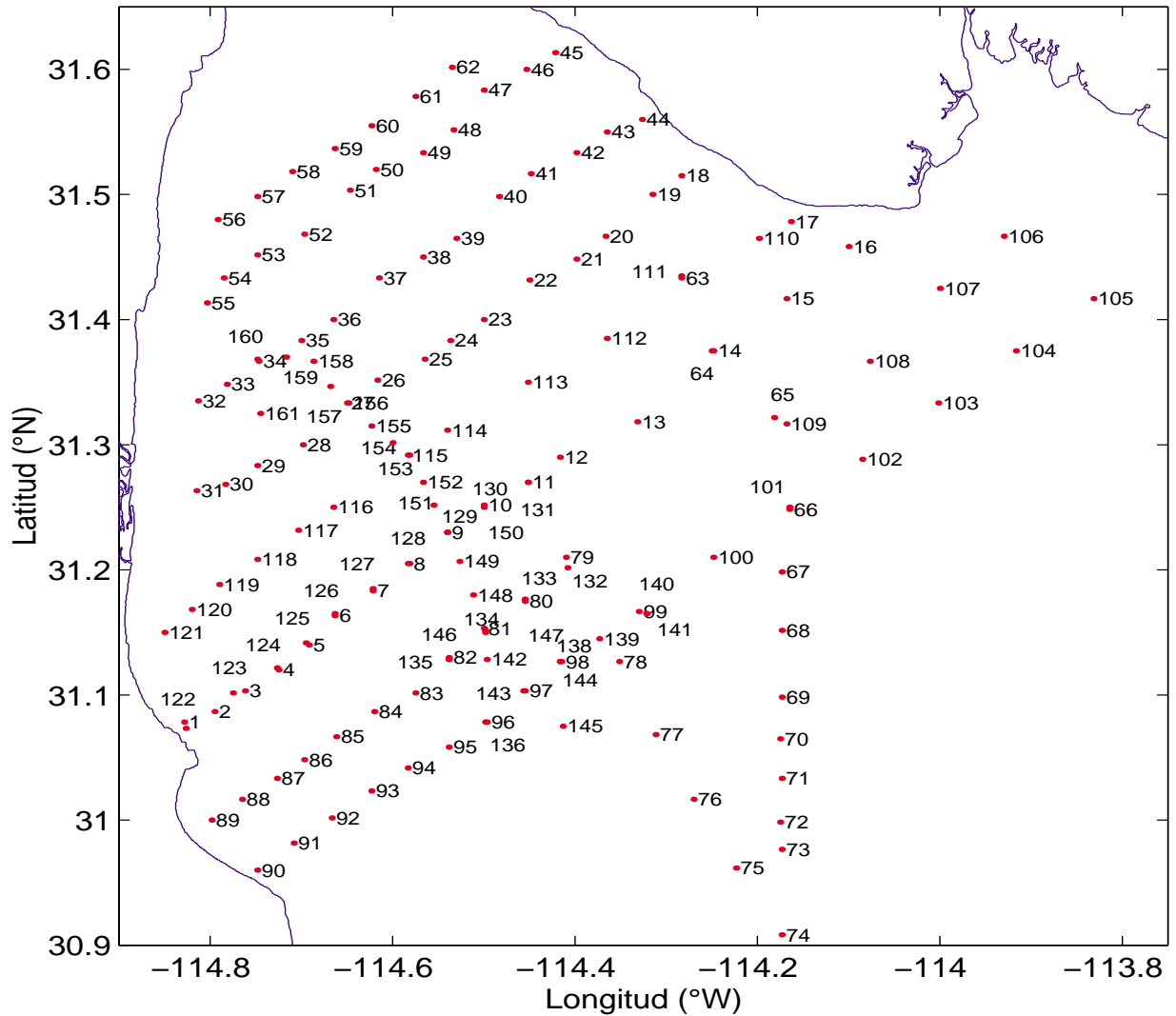


Figura 1. Localización del área de estudio y posición geográfica de las estaciones de CTD. La figura está desproporcionada en sus ejes para una mejor visualización de la numeración de los lances.



Tabla I.- Localización geográfica de las estaciones de CTD durante la campaña FU0002.

LANCE	ESTACION	LATITUD (°N)		LONGITUD (°W)		HORA (UT)	FECHA (dd/mm/aa)	Profundidad (m)
1	F01	31	04.7	114	49.7	12:10	24/02/2000	15.1
2	F01	31	05.2	114	47.7	12:46	24/02/2000	15.0
3	F01	31	06.2	114	45.7	13:14	24/02/2000	17.0
4	F02	31	07.2	114	43.5	13:43	24/02/2000	17.7
5	F02	31	08.4	114	41.5	14:19	24/02/2000	17.0
6	F04	31	09.8	114	39.8	14:46	24/02/2000	25.0
7	F05	31	11.0	114	37.3	01:21	25/02/2000	28.0
8	F06	31	12.3	114	34.9	01:46	25/02/2000	25.0
9	F07	31	13.8	114	32.4	02:13	25/02/2000	31.0
10	F08	31	15.1	114	30.0	02:41	25/02/2000	18.4
11	F09	31	16.2	114	27.1	03:09	25/02/2000	34.0
12	F10	31	17.4	114	25.0	03:33	25/02/2000	34.4
13	F11	31	19.1	114	19.9	04:23	25/02/2000	41.2
14	F12	31	22.5	114	14.9	05:08	25/02/2000	41.2
15	F13	31	25.0	114	10.1	06:00	25/02/2000	40.0
16	F14	31	27.5	114	06.0	06:40	25/02/2000	07.0
17	E13	31	28.7	114	09.8	07:21	25/02/2000	09.5
18	D14	31	30.9	114	17.0	08:28	25/02/2000	21.0
19	D13	31	30.0	114	18.9	08:53	25/02/2000	23.4
20	D12	31	28.0	114	22.0	09:36	25/02/2000	22.4
21	D11	31	26.9	114	23.9	09:59	25/02/2000	26.3
22	D10	31	25.9	114	27.0	10:32	25/02/2000	21.0
23	D09	31	24.0	114	30.0	11:15	25/02/2000	23.3
24	D08	31	23.0	114	32.2	11:35	25/02/2000	23.6
25	D07	31	22.1	114	33.9	12:00	25/02/2000	23.2
26	D06	31	21.1	114	37.0	12:29	25/02/2000	24.6
27	D05	31	20.0	114	39.0	12:55	25/02/2000	21.0
28	D04	31	18.0	114	41.9	13:31	25/02/2000	16.9
29	D03	31	17.0	114	44.9	14:03	25/02/2000	14.5
30	D02	31	16.1	114	47.0	14:31	25/02/2000	11.2
31	D01	31	15.8	114	48.9	14:55	25/02/2000	09.2
32	C01	31	20.1	114	48.8	15:50	25/02/2000	07.0
33	C02	31	20.9	114	46.9	16:15	25/02/2000	08.9
34	C03	31	22.0	114	44.8	16:54	25/02/2000	11.5
35	C04	31	23.0	114	42.0	17:20	25/02/2000	14.4
36	C05	31	24.0	114	39.9	17:42	25/02/2000	14.9
37	C06	31	26.0	114	36.9	18:24	25/02/2000	15.6
38	C07	31	27.0	114	34.0	18:56	25/02/2000	15.6
39	C08	31	27.9	114	31.8	19:22	25/02/2000	15.6
40	C09	31	29.9	114	29.0	19:50	25/02/2000	15.0
41	C10	31	31.0	114	26.9	20:21	25/02/2000	12.8
42	C11	31	32.0	114	23.9	20:57	25/02/2000	15.4
43	C12	31	33.0	114	21.9	21:27	25/02/2000	17.6
44	C13	31	33.6	114	19.6	21:52	25/02/2000	07.9
45	B11	31	36.8	114	25.3	22:48	25/02/2000	15.5

Continuación Tabla I								
46	B10	31	36.0	114	27.2	23:12	25/02/2000	15.0
47	B09	31	35.0	114	30.0	23:44	25/02/2000	14.8
48	B08	31	33.1	114	32.0	00:13	26/02/2000	14.4
49	B07	31	32.0	114	34.0	00:38	26/02/2000	13.0
50	B06	31	31.2	114	37.1	01:12	26/02/2000	12.0
51	B05	31	30.2	114	38.8	01:36	26/02/2000	11.5
52	B04	31	28.1	114	41.8	02:18	26/02/2000	12.1
53	B03	31	27.1	114	44.9	02:53	26/02/2000	11.5
54	B02	31	26.0	114	47.1	03:24	26/02/2000	09.6
55	B01	31	24.8	114	48.2	03:43	26/02/2000	06.7
56	A01	31	28.8	114	47.5	04:27	26/02/2000	07.9
57	A02	31	29.9	114	44.9	04:54	26/02/2000	08.3
58	A03	31	31.1	114	42.6	05:22	26/02/2000	08.9
59	A04	31	32.2	114	39.8	05:50	26/02/2000	09.6
60	A05	31	33.3	114	39.8	06:15	26/02/2000	11.0
61	A06	31	34.7	114	34.5	06:45	26/02/2000	07.0
62	A07	31	36.1	114	32.1	07:17	26/02/2000	04.0
63	E11	31	26.0	114	17.0	09:36	26/02/2000	33.6
64	F12	31	22.5	114	15.0	10:16	26/02/2000	42.3
65	G12	31	19.3	114	10.9	11:13	26/02/2000	55.8
66	H09	31	14.9	114	09.9	11:58	26/02/2000	68.5
67	W01	31	11.9	114	11.9	12:35	26/02/2000	94.1
68	W02	31	09.1	114	10.4	13:15	26/02/2000	113.0
69	W03	31	05.9	114	10.4	13:49	26/02/2000	156.0
70	W3A	31	03.9	114	10.5	14:21	26/02/2000	182.0
71	W04	31	02.0	114	10.4	14:50	26/02/2000	215.0
72	W05	30	59.9	114	10.5	15:22	26/02/2000	216.0
73	W06	30	58.6	114	10.4	15:50	26/02/2000	201.0
74	W09	30	54.5	114	10.4	16:38	26/02/2000	169.0
75	Z01	30	57.7	114	13.4	17:30	26/02/2000	194.0
76	Z02	31	01.0	114	16.2	18:17	26/02/2000	106.0
77	Z03	31	04.1	114	18.7	19:00	26/02/2000	46.0
78	Z04	31	07.6	114	21.1	19:42	26/02/2000	26.2
79	G09	31	12.6	114	24.6	20:31	26/02/2000	29.7
80	G08	31	10.5	114	27.3	21:06	26/02/2000	38.1
81	G07	31	09.2	114	30.0	21:39	26/02/2000	29.0
82	G06	31	07.8	114	32.3	22:10	26/02/2000	27.7
83	G05	31	06.1	114	34.5	22:39	26/02/2000	31.0
84	G04	31	05.2	114	37.2	23:03	26/02/2000	21.5
85	G03	31	04.0	114	39.7	23:30	26/02/2000	21.7
86	G2A	31	02.9	114	41.8	23:53	26/02/2000	20.0
87	G02	31	02.0	114	43.6	00:15	27/02/2000	18.9
88	G1A	31	01.0	114	45.9	00:41	27/02/2000	15.8
89	G01	31	00.0	114	47.9	01:06	27/02/2000	08.5
90	H01	30	57.6	114	44.9	01:55	27/02/2000	10.0
91	H1A	30	58.9	114	42.5	02:22	27/02/2000	25.7
92	H02	31	00.1	114	40.0	02:54	27/02/2000	24.0
93	H2A	31	01.4	114	37.4	03:24	27/02/2000	24.4
94	H03	31	02.5	114	35.0	03:51	27/02/2000	23.7
95	H3A	31	03.5	114	32.3	04:40	27/02/2000	34.4

Continuación Tabla I								
96	H04	31	04.7	114	29.8	05:14	27/02/2000	35.8
97	H05	31	06.2	114	27.3	05:42	27/02/2000	93.0
98	H06	31	07.6	114	24.9	06:10	27/02/2000	45.0
99	H07	31	10.0	114	19.8	07:00	27/02/2000	45.0
100	H08	31	12.6	114	14.9	07:45	27/02/2000	50.0
101	H09	31	15.0	114	09.9	08:35	27/02/2000	67.7
102	H10	31	17.3	114	05.1	09:32	27/02/2000	47.0
103	H11	31	20.0	114	00.1	10:27	27/02/2000	25.1
104	H12	31	22.5	113	55.0	11:17	27/02/2000	15.3
105	H13	31	25.0	113	49.9	12:06	27/02/2000	11.3
106	G15	31	28.0	113	55.8	13:10	27/02/2000	13.8
107	G14	31	25.5	114	00.0	13:52	27/02/2000	11.3
108	F13	31	22.0	114	04.6	14:38	27/02/2000	27.0
109	F12	31	19.0	114	10.1	15:33	27/02/2000	55.8
110	E12	31	27.9	114	11.9	16:51	27/02/2000	33.0
111	E11	31	26.1	114	17.0	17:36	27/02/2000	33.0
112	E10	31	23.1	114	21.9	18:27	27/02/2000	24.0
113	E09	31	21.0	114	27.1	19:13	27/02/2000	28.5
114	E08	31	18.7	114	32.4	19:59	27/02/2000	23.4
115	E07	31	17.5	114	35.0	20:29	27/02/2000	27.3
116	E05	31	15.0	114	39.9	21:14	27/02/2000	18.6
117	E04	31	13.9	114	42.2	21:34	27/02/2000	17.4
118	E03	31	12.5	114	47.9	22:04	27/02/2000	12.2
119	E02	31	11.3	114	44.4	22:30	27/02/2000	10.7
120	E1A	31	10.1	114	49.2	22:52	27/02/2000	09.6
121	E01	31	09.0	114	51.0	23:12	27/02/2000	07.6
122	F01	31	04.4	114	49.6	23:48	27/02/2000	12.4
123	F1A	31	06.1	114	46.5	00:22	28/02/2000	15.0
124	F02	31	07.3	114	43.6	00:50	28/02/2000	16.0
125	F03	31	08.5	114	41.7	01:13	28/02/2000	15.2
126	F04	31	09.9	114	39.8	01:35	28/02/2000	25.2
127	F05	31	11.1	114	37.3	02:02	28/02/2000	26.4
128	F06	31	12.3	114	35.0	02:26	28/02/2000	26.4
129	F07	31	13.8	114	32.4	02:50	28/02/2000	30.5
130	F08	31	15.0	114	30.0	03:15	28/02/2000	20.1
131	F09	31	16.2	114	27.1	03:41	28/02/2000	32.0
132	F10	31	12.1	114	24.5	04:24	28/02/2000	33.1
133	G08	31	10.6	114	27.3	04:52	28/02/2000	07.0
134	G07	31	09.0	114	29.9	05:21	28/02/2000	29.9
135	G06	31	07.7	114	32.3	05:50	28/02/2000	28.8
136	H04	31	04.7	114	29.9	06:32	28/02/2000	26.8
137	Datos perdidos							
138	H06	31	07.6	114	25.0	07:38	28/02/2000	44.3
139	H6A	31	08.7	114	22.4	08:11	28/02/2000	29.0
140	H07	31	09.9	114	19.3	08:48	28/02/2000	44.0
141	H07	31	09.9	114	19.3	08:55	28/02/2000	44.0
142	H04	31	07.7	114	29.8	16:52	29/02/2000	29.2
143	H05	31	06.2	114	27.4	18:30	29/02/2000	88.0
144	H06	31	07.6	114	25.0	18:55	29/02/2000	46.2
145	Y01	31	04.5	114	24.8	19:24	29/02/2000	34.9

146	G06	31	07.7	114	32.3	05:45	01/03/2000	29.4
147	G07	31	09.1	114	29.9	06:25	01/03/2000	31.0
148	L01	31	10.8	114	30.7	06:52	01/03/2000	33.4
149	L02	31	12.4	114	31.6	07:20	01/03/2000	32.9
150	F07	31	13.8	114	32.4	07:40	01/03/2000	31.8
151	L03	31	15.1	114	33.3	08:04	01/03/2000	31.0
152	L04	31	16.2	114	34.0	08:26	01/03/2000	30.7
153	E07	31	17.5	114	34.9	08:45	01/03/2000	28.8
154	L05	31	18.1	114	36.0	09:11	01/03/2000	25.2
155	L06	31	18.9	114	37.4	09:33	01/03/2000	22.0
156	D05	31	20.0	114	38.9	09:57	01/03/2000	21.0
157	L07	31	20.8	114	40.1	10:18	01/03/2000	19.6
158	L08	31	22.0	114	41.2	10:38	01/03/2000	17.5
159	L09	31	22.2	114	43.0	11:05	01/03/2000	15.2
160	C03	31	22.1	114	44.9	11:30	01/03/2000	12.0
161	L10	31	19.5	114	44.7	11:54	01/03/2000	12.0

### 3. INSTRUMENTACIÓN

#### 3.1 Calibración del CTD

El CTD *SBE-911 plus* fabricado por *Sea-Bird Electronics Inc.* consta de una unidad submarina y una unidad de control en cubierta comunicados por medio de un cable conductor en el malacate del CTD. La unidad de control permite además de la comunicación, control y monitoreo del lance. El CTD tiene las siguientes especificaciones de fábrica (Tabla II).

Tabla II. Especificaciones de los sensores del CTD *Sea Bird* proporcionadas por el fabricante.

PARÁMETRO	RANGO	PRECISIÓN	RESOLUCIÓN	ESTABILIDAD
Conductividad [Siemens/m]	0-7	0.0003	0.00004	0.0002
Temperatura [°C]	-5 a 35	0.002	0.0002	0.0003
Presión [psia]	0-15000 Dependiendo de la caja	0.015% de la escala completa	0.001% de la escala completa	0.0015% de la escala completa

Los sensores del CTD fueron calibrados en los laboratorios de *Sea-Bird Electronics Inc.* en diciembre del 1999, por lo que se realizó el procesamiento usando estas nuevas constantes de calibraciones. La tabla III muestra los resultados de sumergir los sensores de temperatura y conductividad en un baño de temperatura variable. El sensor de presión es calibrado con un pistón estándar del tipo de Ruska modelo 2485 (García *et al.*, 1995). Las frecuencias de salida de los sensores son usadas para tabular los coeficientes de calibración para las ecuaciones de conversión a unidades del Sistema Internacional de Unidades en Oceanografía (Unesco, 1985).

Tabla III. Experimentos de calibración para sensores de temperatura.

Temperatura Estándar [°C]	CTD [°C]	Residual [°C]
-1.51290	-1.51280	0.00010
1.04810	1.04802	-0.00008
4.62163	4.62150	-0.00013
8.12826	8.12820	-0.00006
11.63201	11.63210	0.00009
15.19207	15.19240	0.00033
18.65571	18.65560	-0.00011
22.15660	22.15641	-0.00019
25.68434	25.68430	-0.00004
29.15556	29.15560	0.00004
32.63026	32.63030	0.00004

Los sensores de conductividad del CTD también fueron comparados en laboratorio contra sus estándares, mediante 2 experimentos variando la temperatura y la salinidad, los resultados se muestran en la tabla IV.

Tabla IV. Resultados de la calibración de conductividad en laboratorio.

Temperatura Estándar [°C]	Salinidad Estándar	Conductividad Estándar [S/m]	CTD [S/m]	Residual [S/m]
0.0000	0.0000	0.00000	0.00000	0.00000
-1.31270	32.7912	2.63100	2.63099	-0.00001
1.1436	34.7914	2.83055	2.83056	0.00001
15.2729	32.7910	4.07352	4.07348	-0.00004
18.7428	32.7894	4.40010	4.40014	0.00004
29.1315	32.7863	5.41839	5.41839	0.00000

### 3.2 Adquisición de datos de CTD

Los datos provenientes del CTD en forma de frecuencias y con una razón de muestreo de 24 Hz, fueron convertidos en datos digitales por la unidad de grabación *SBE-11 plus*, la cual simultáneamente envía los datos digitalizados a una computadora personal donde son almacenados en el disco duro a la vez que son desplegados en forma gráfica. El único procesamiento en tiempo real es el submuestreo de datos crudos que son desplegados en la pantalla de la computadora para el monitoreo del lance.

## 4. PROCESAMIENTO Y PRESENTACIÓN DE DATOS DE CTD

El procesamiento de datos de CTD tiene como objetivo producir perfiles limpios de toda clase de errores (ruido y "spikes"); es realizado con las utilerías proporcionadas por el fabricante. Como primer paso, se identificaron y eliminaron datos con diferencias mayores a dos desviaciones estándar entre 48 datos sucesivos (2 segundos) de presión, temperatura y conductividad, esto se realiza con el módulo WILDEDIT. Después es necesario corregir el desfase de tiempo entre las señales de los sensores de temperatura y conductividad, el cual ocurre, debido a la posición que tienen los sensores en el ducto de bombeo de agua. Dicha corrección se realiza con el módulo ALIGNCTD. Si esto no se corrige, se obtienen saltos ("spikes") en el cálculo de la salinidad en las zonas de fuerte gradiente térmico. Posteriormente se necesita reducir el ruido de alta frecuencia que presentan los sensores de presión y conductividad mediante la aplicación de un filtro recursivo de paso bajo con una constante de tiempo de 0.20 s y 0.045 s para los sensores anteriormente mencionados. Esto se realiza con el módulo FILTER. Después se necesita realizar un ajuste por el flujo del agua a través del ducto de bombeo, lo cual produce anomalías térmicas en la celda de conductividad, sobre todo cuando el CTD pasa por gradientes de temperatura importantes. Se usa el módulo CELLM para corregir esta anomalía, y se requieren de dos parámetros ( $\alpha$  y  $\tau$ ) para minimizar las diferencias de salinidad entre el perfil de bajada y el perfil de subida, se utilizaron los valores recomendados por el fabricante (García *et al.*, 2001). Como última corrección se utiliza el módulo LOOPEDIT para corregir el error producido por el movimiento irregular del barco al descender o ascender el CTD.

Después de aplicar estos módulos, se tiene un perfil limpio que puede promediarse y calcular las diferentes variables oceanográficas de interés (UNESCO, 1988). Para calcular salinidad se usaron los algoritmos de Fofonoff y Millard (1983). Tomando en cuenta la recomendación de la UNESCO (1991) se reporta la anomalía de densidad ( $\gamma \text{kgm}^{-3}$ ) en substitución de  $\sigma_t$ .

En el apéndice A se presentan los datos de CTD en forma de perfiles verticales de temperatura ( $\Theta$ ), salinidad y anomalía de densidad ( $\gamma$ ), junto con un listado discretizado a profundidades seleccionadas y las variables meteorológicas obtenidas durante la estación. La simbología de los encabezados se da en la Tabla V. Cuando una variable no fue medida se reporta con 99.9, en el caso de la nubosidad con 9.

Tabla V. Simbología usada en los encabezados de los perfiles verticales de CTD.

ESTACIÓN	Nombre de la Estación
LANCE	Número de Lance
LATITUD	Posición geográfica ( $^{\circ}\text{N}$ )
LONGITUD	Posición geográfica ( $^{\circ}\text{W}$ )
DD/MM/AA	Fecha en día/mes/año
H	Tiempo universal (UT)
PROFTOT	Profundidad del fondo (m)
TEMSUP	Temperatura de superficie [ $^{\circ}\text{C}$ ]
SALSUP	Salinidad superficial
TEBUHU	Temperatura de bulbo húmedo [ $^{\circ}\text{C}$ ]
TEBUSE	Temperatura de bulbo seco [ $^{\circ}\text{C}$ ]
V-MAG	Rapidez del viento[m/s]
DIR	Dirección del viento [azimut]
NUBES	Nubosidad [octas]
BAROM	Presión atmosférica [mb]
PR	Presión de CTD [db]
$\Theta$	Temperatura de CTD [ $^{\circ}\text{C}$ ]
SA	Salinidad de CTD
$\gamma$	Densidad $-1000$ [ $\text{kg/m}^3$ ]



En la Figura 4 se presenta un diagrama  $\Theta$ -S de todos los lances de CTD, como seguimiento de la calidad de los datos.

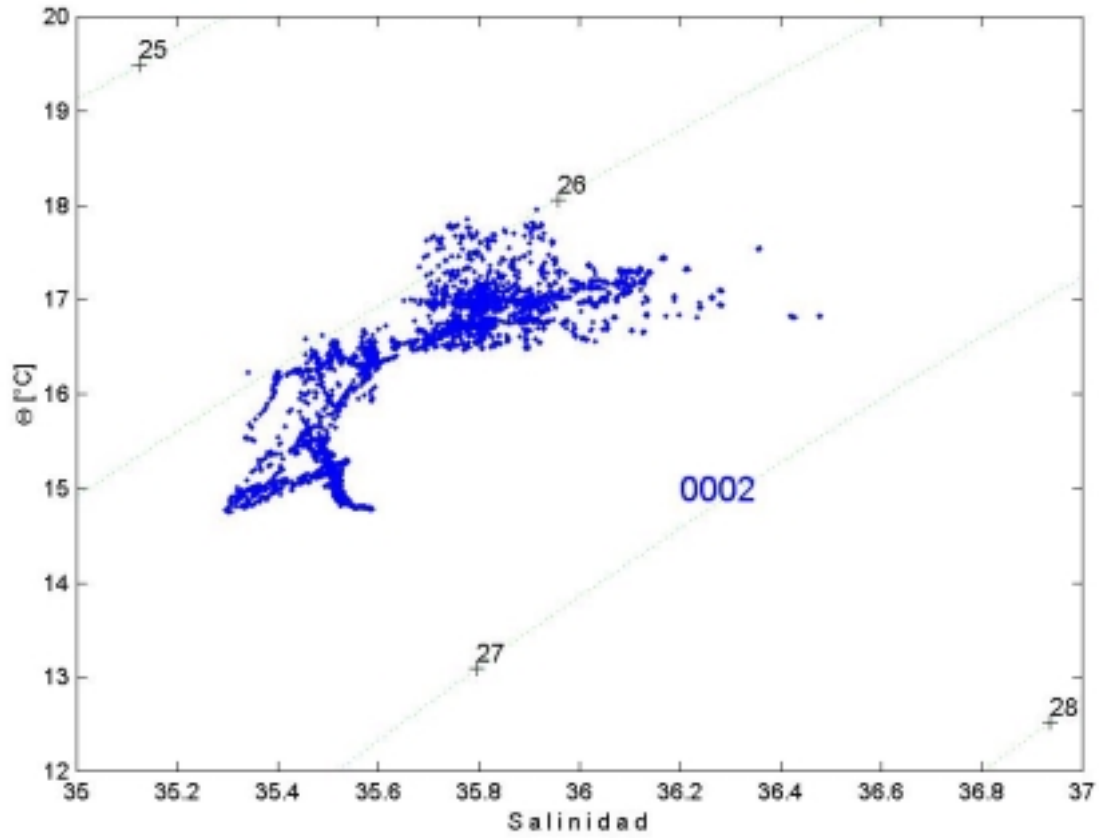


Figura 4. Diagrama  $\Theta$ -S de todas las estaciones de CTD en la campaña FU0002.

## 5 AGRADECIMIENTOS

Este trabajo es un producto de los Proyectos CONACyT *Circulación en el Alto Golfo de California (Contrato No. T9712)* y *Efectos de el Niño sobre la hidrografía del Alto Golfo de California (Contrato No. 026PÑ-1297)*. Se obtuvo apoyo adicional del Centro de Investigación Científica y Educación Superior de Ensenada a través del proyecto interno *Oceanografía Física del Alto Golfo de California*. Se brinda un reconocimiento especial al Capitán del B/O Francisco de Ulloa, Daniel Gómez y a su tripulación por la exitosa campaña de mediciones. A la delegada administrativa Julieta Castro Sandoval y a María Edith Medina Estrada por su valioso apoyo administrativo.

## 6 BIBLIOGRAFÍA

Fofonoff, N. P., and R. C. Millard. Algorithms for computation of fundamental properties of seawater. UNESCO Technical Papers in Marine Science, 44. 53 pp. 1983.

García Cordova, Joaquín, José Ma. Robles y Carlos F. Flores Cabrera. Datos de CTD obtenidos en la Bahía de Todos Santos, B.C. Campaña BATOS 4. B/O Francisco de Ulloa. Marzo 22-24 de 1994. Informe Técnico CTOFT9506. Comunicaciones Académicas. Serie Oceanografía Física, CICESE. 75 pp. 1995.

García Córdova, Joaquín, José Gómez Valdés, Miguel F. Lavín, Victor M. Godínez y José Ma. Robles Pacheco. Hidrografía en las costas del Pacífico Tropical Mexicano. Campaña PROCOMEX-0011. B/O Francisco de Ulloa. Noviembre 6-20 de 2000. Informe Técnico CTOFT200110. Comunicaciones Académicas. Serie Oceanografía Física, CICESE. 113 pp. 2001.

Godínez, Victor M., Miguel F. Lavín, Rafael Ramírez Mendoza y Salvador Sánchez Mancilla. Datos meteorológicos y de corrientes en el Alto Golfo de California: Experimento de invierno del 17 de enero al 2 de marzo del 2000. Informe Técnico CTOFT200011. Comunicaciones Académicas. Serie Oceanografía Física, CICESE. 53 pp. 2000.

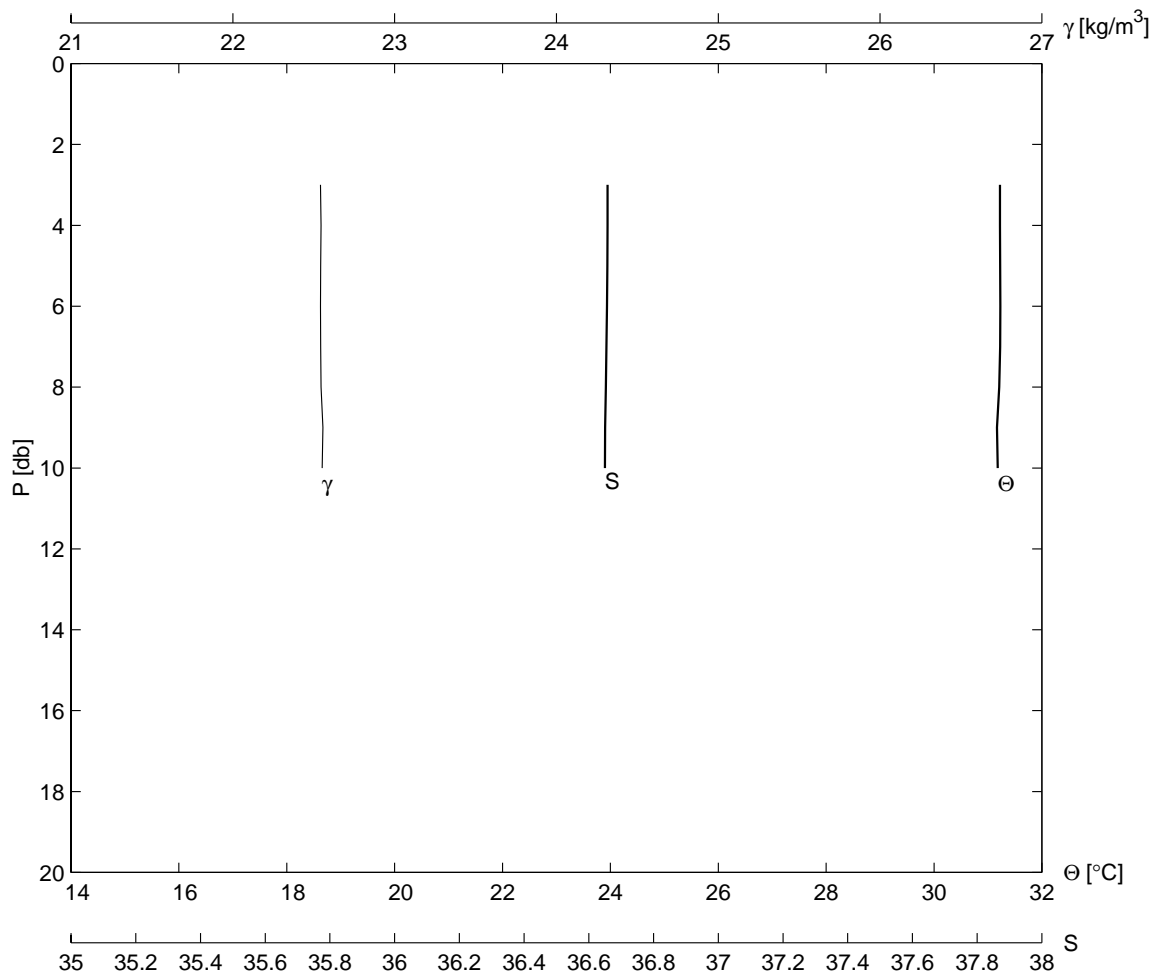
UNESCO. The international system of units (SI) in oceanography. Unesco technical papers in marine science. No 45. 124 pp. 1985

UNESCO. The acquisition, calibration, and analysis of CTD data. Unesco technical papers in marine science. No 54. 94 pp. 1988

UNESCO. Processing of oceanographic station data. Unesco technical papers in marine science. 138 pp. 1991

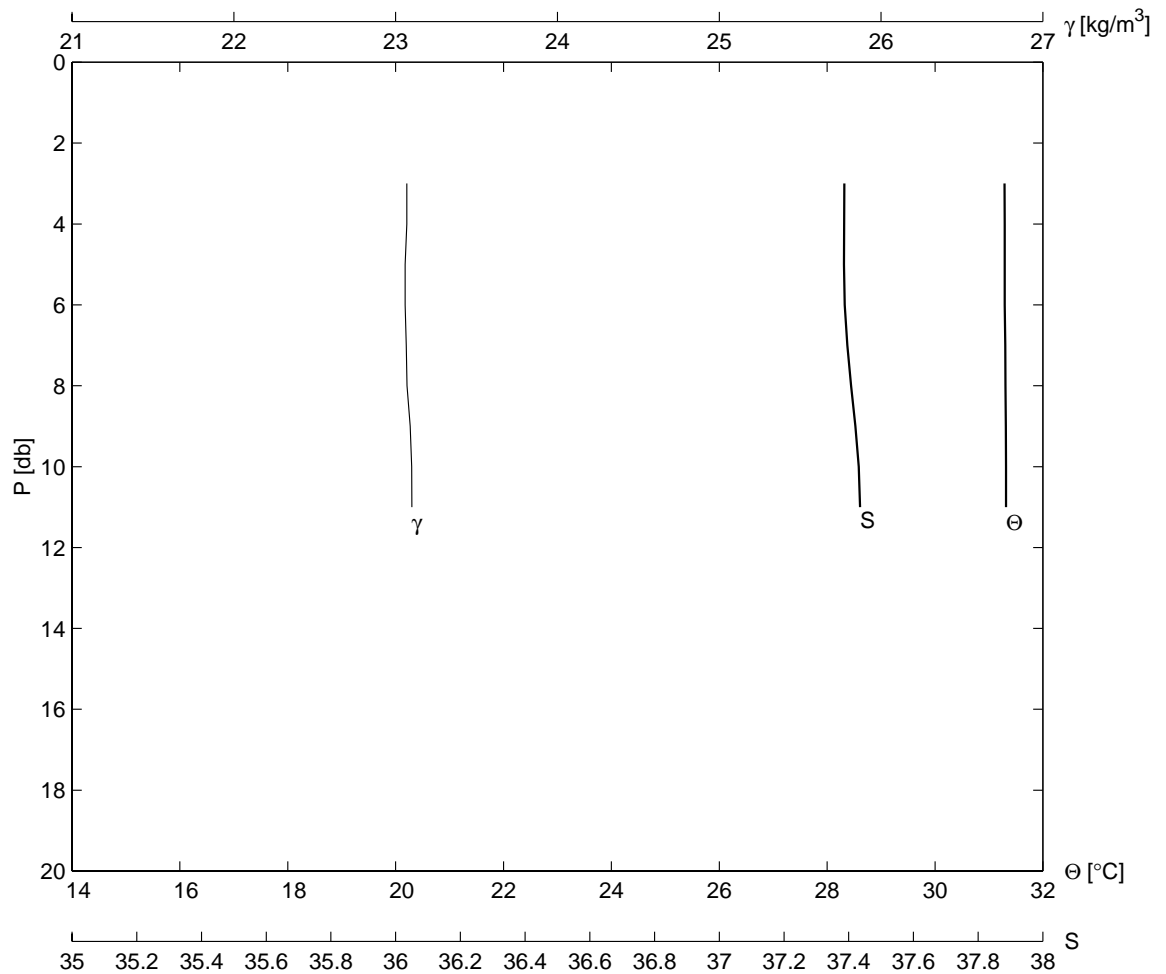
APÉNDICE A: Perfiles verticales de temperatura ( $\Theta$  °C),  
salinidad y anomalía de densidad ( $\gamma$  kgm<sup>-3</sup>) obtenidos con el CTD

ESTACION	LANCE	LATITUD	LONGITUD	DD	MM	AA	H[UT]		
A06	1	31 34.7	114 34.7	9	8	2000	0038		
PROFTOT	TEMSUP	SALSUP	TEBUHU	TEBUSE	V-MAG	DIR	NUBES	BAROM	
[m]	[°C]	[ups]	[°C]	[°C]	[m/s]	[AZM]	[1/8]	[bar]	
11.0	31.6	36.63	27.0	30.4	2.8	180	9	1002.0	
PR	Θ	SA	γ	OX	PR	Θ	SA	γ	OX
[db]	[°C]		[kg/m <sup>3</sup> ]	[ml/l]	[db]	[°C]		[kg/m <sup>3</sup> ]	[ml/l]
3.0	31.224	36.655	22.542	99.900	7.0	31.228	36.658	22.543	99.900
4.0	31.224	36.659	22.545	99.900	8.0	31.208	36.651	22.545	99.900
5.0	31.228	36.658	22.543	99.900	9.0	31.167	36.648	22.557	99.900
6.0	31.230	36.657	22.541	99.900	10.0	31.181	36.648	22.552	99.900
10.0	31.181	36.648	22.552	99.900					



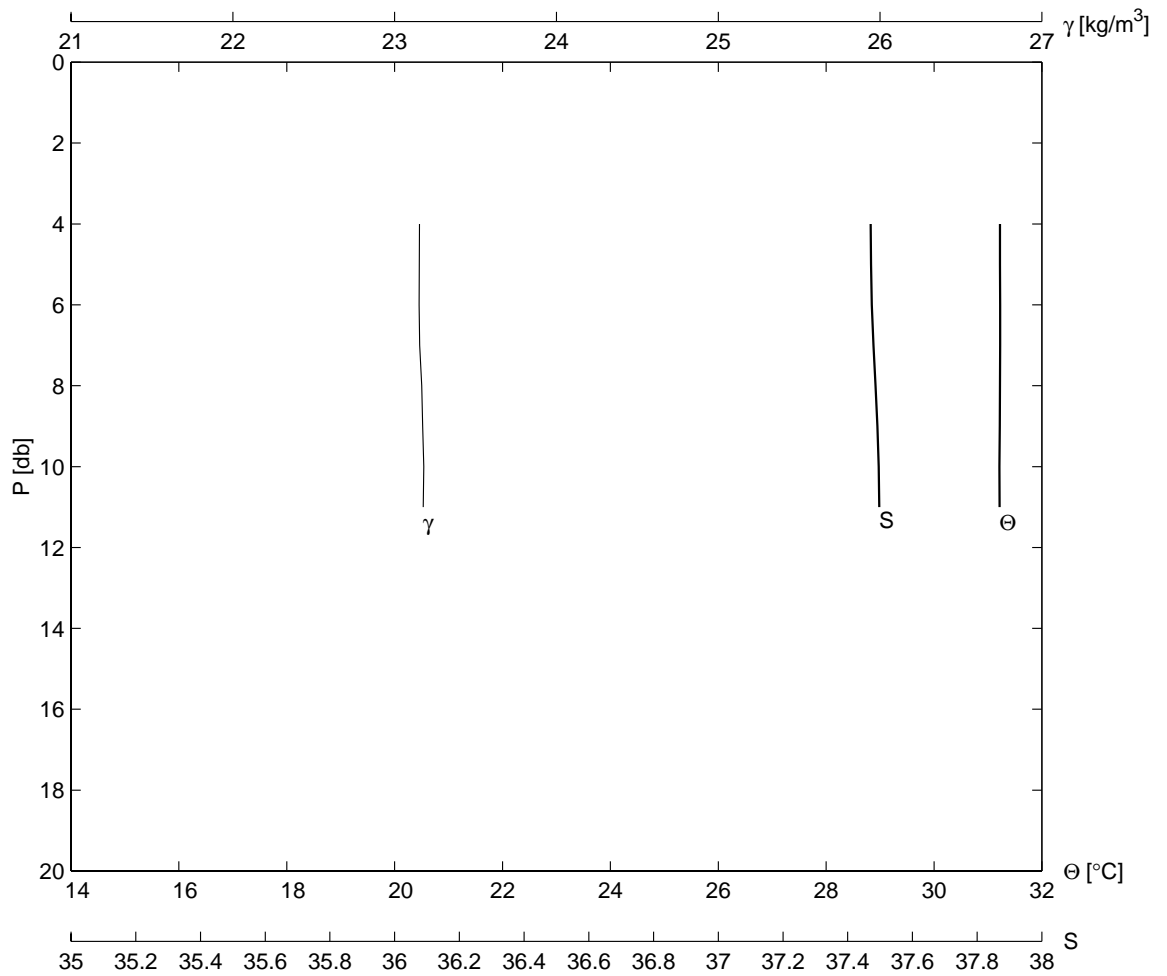
# A.2

ESTACION	LANCE	LATITUD	LONGITUD	DD	MM	AA	H[UT]		
A05	2	31 33.2	114 37.7	9	8	2000	0108		
PROFTOT	TEMSUP	SALSUP	TEBUHU	TEBUSE	V-MAG	DIR	NUBES	BAROM	
[m]	[°C]	[ups]	[°C]	[°C]	[m/s]	[AZM]	[1/8]	[bar]	
12.0	31.5	99.90	27.0	30.0	2.6	79	9	1003.0	
PR	Θ	SA	γ	OX	PR	Θ	SA	γ	OX
[db]	[°C]		[kg/m <sup>3</sup> ]	[ml/l]	[db]	[°C]		[kg/m <sup>3</sup> ]	[ml/l]
3.0	31.288	37.389	23.069	99.900	7.0	31.304	37.391	23.065	99.900
4.0	31.293	37.392	23.070	99.900	8.0	31.307	37.399	23.070	99.900
5.0	31.292	37.377	23.059	99.900	9.0	31.313	37.429	23.090	99.900
6.0	31.293	37.377	23.059	99.900	10.0	31.316	37.443	23.099	99.900
11.0	31.317	37.445	23.101	99.900					



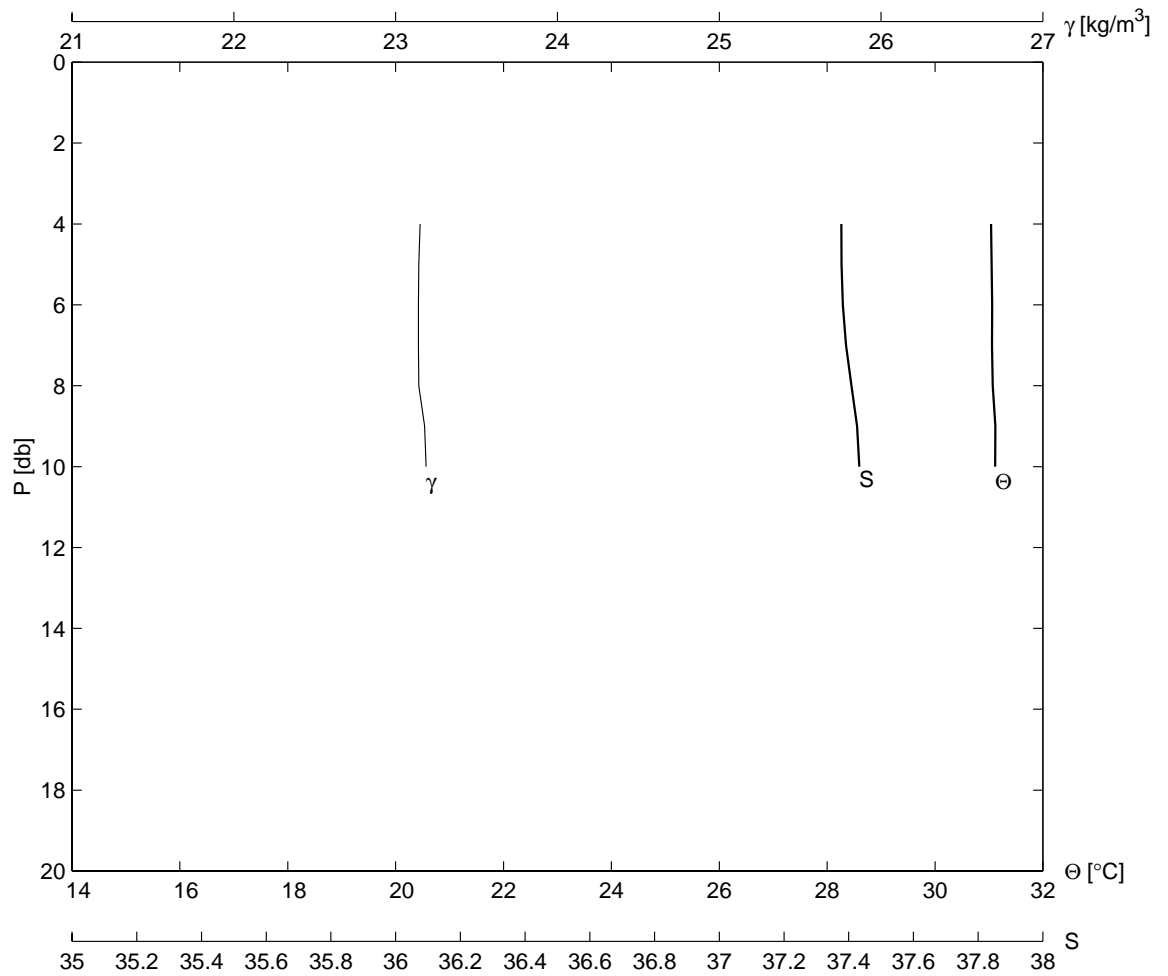
# A.3

ESTACION	LANCE	LATITUD	LONGITUD	DD	MM	AA	H[UT]		
A04	3	31 32.2	114 39.9	9	8	2000	0132		
PROFTOT	TEMSUP	SALSUP	TEBUHU	TEBUSE	V-MAG	DIR	NUBES	BAROM	
[m]	[°C]	[ups]	[°C]	[°C]	[m/s]	[AZM]	[1/8]	[bar]	
11.0	29.8	99.90	24.5	29.0	2.3	80	9	1002.0	
PR	Θ	SA	γ	OX	PR	Θ	SA	γ	OX
[db]	[°C]		[kg/m <sup>3</sup> ]	[ml/l]	[db]	[°C]		[kg/m <sup>3</sup> ]	[ml/l]
4.0	31.224	37.472	23.154	99.900	8.0	31.221	37.489	23.168	99.900
5.0	31.224	37.470	23.152	99.900	9.0	31.219	37.494	23.173	99.900
6.0	31.227	37.469	23.151	99.900	10.0	31.214	37.501	23.180	99.900
7.0	31.228	37.474	23.154	99.900	11.0	31.216	37.499	23.177	99.900



# A.4

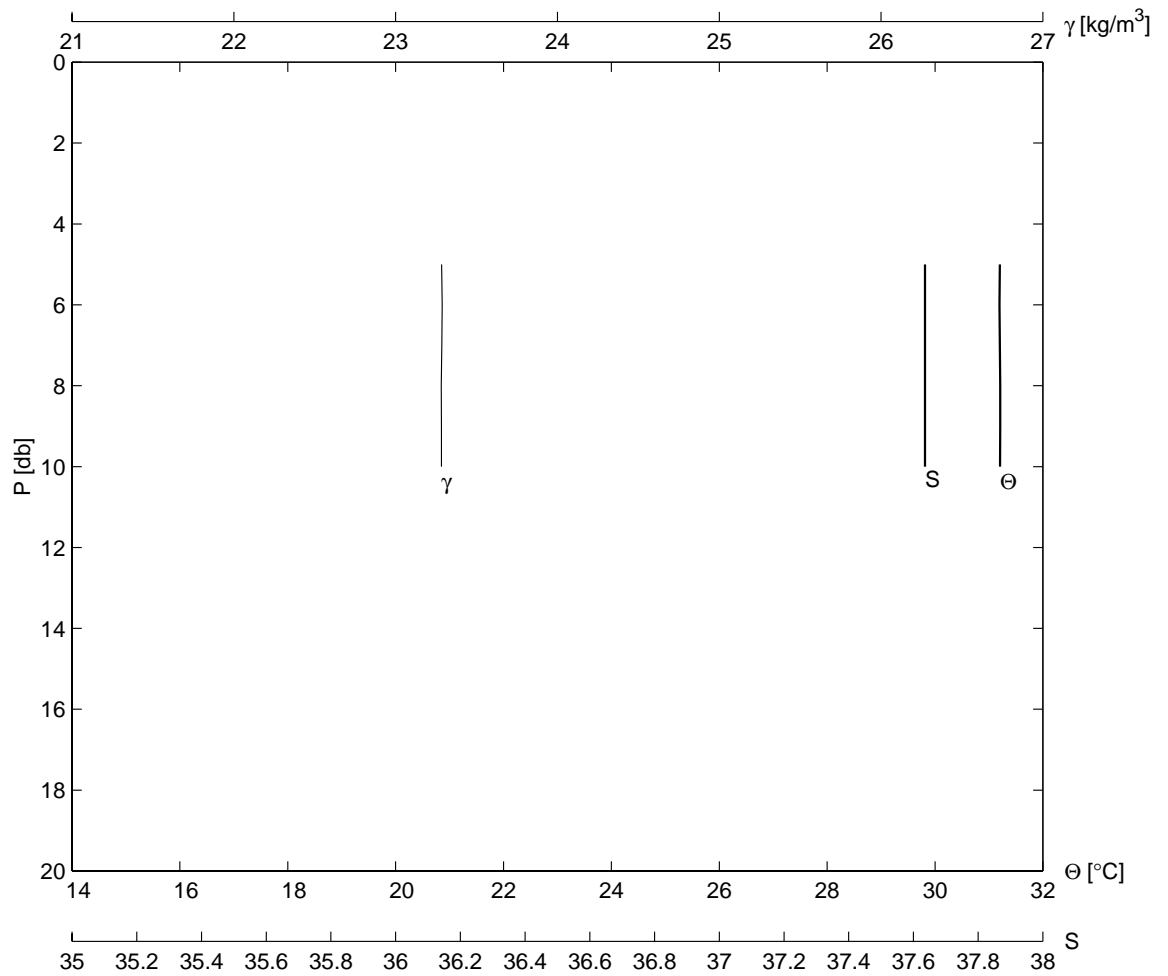
ESTACION	LANCE	LATITUD	LONGITUD	DD	MM	AA	H[UT]		
A03	4	31 31.1	114 42.7	9	8	2000	0205		
PROFTOT	TEMSUP	SALSUP	TEBUHU	TEBUSE	V-MAG	DIR	NUBES	BAROM	
[m]	[°C]	[ups]	[°C]	[°C]	[m/s]	[AZM]	[1/8]	[bar]	
10.0	31.4	37.34	27.5	30.5	2.6	89	9	1002.0	
PR	Θ	SA	γ	OX	PR	Θ	SA	γ	OX
[db]	[°C]		[kg/m <sup>3</sup> ]	[ml/l]	[db]	[°C]		[kg/m <sup>3</sup> ]	[ml/l]
4.0	31.038	37.381	23.151	99.900	8.0	31.069	37.384	23.143	99.900
5.0	31.048	37.375	23.144	99.900	9.0	31.119	37.456	23.179	99.900
6.0	31.059	37.377	23.141	99.900	10.0	31.116	37.467	23.189	99.900
7.0	31.055	37.375	23.141	99.900	10.0	31.116	37.467	23.189	99.900





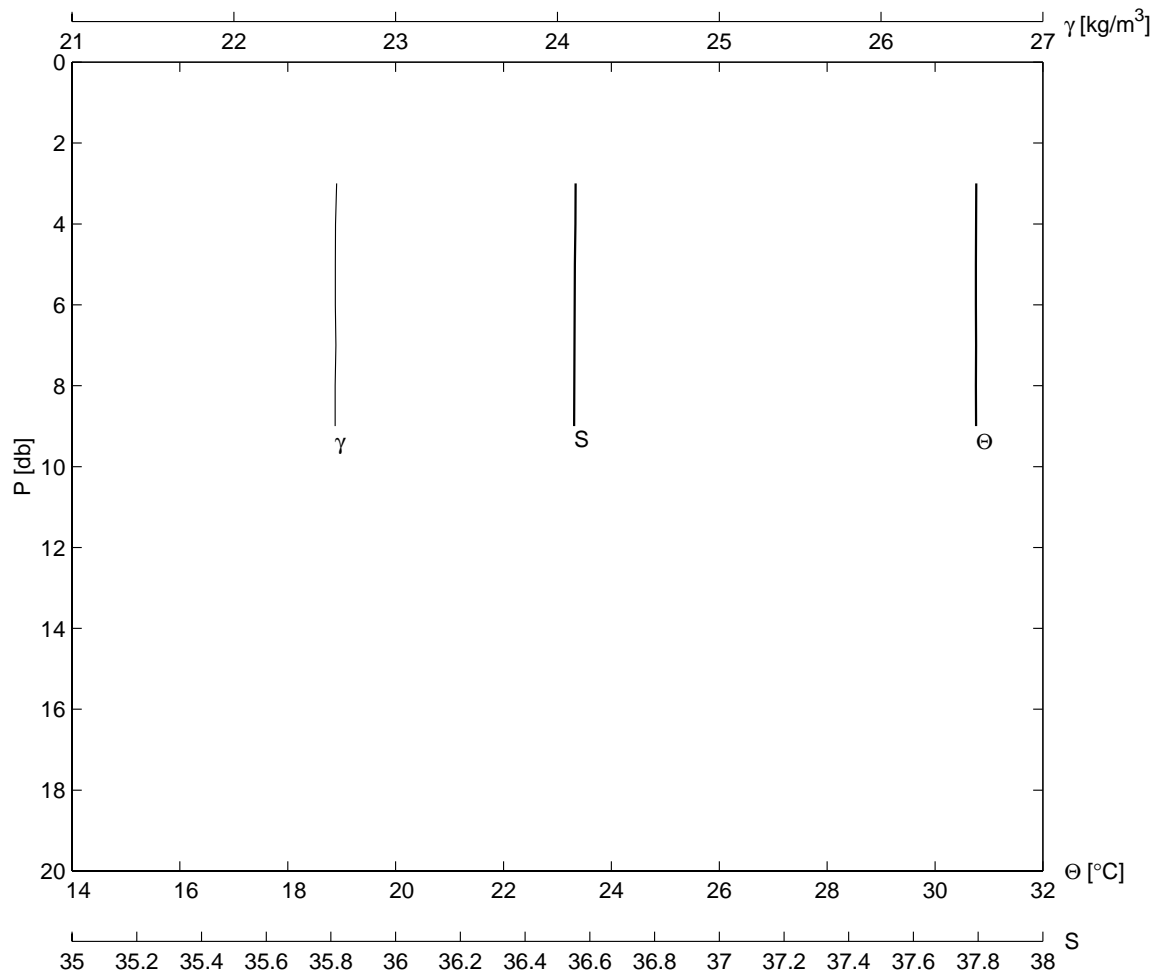
# A.5

ESTACION	LANCE	LATITUD	LONGITUD	DD	MM	AA	H[UT]		
A02	5	31 30.0	114 45.0	9	8	2000	0235		
PROFTOT	TEMSUP	SALSUP	TEBUHU	TEBUSE	V-MAG	DIR	NUBES	BAROM	
[m]	[°C]	[ups]	[°C]	[°C]	[m/s]	[AZM]	[1/8]	[bar]	
10.0	31.2	37.60	27.0	30.5	3.2	80	9	1003.0	
PR	Θ	SA	γ	OX	PR	Θ	SA	γ	OX
[db]	[°C]		[kg/m <sup>3</sup> ]	[ml/l]	[db]	[°C]		[kg/m <sup>3</sup> ]	[ml/l]
5.0	31.201	37.635	23.285	99.900	8.0	31.209	37.635	23.281	99.900
6.0	31.195	37.637	23.288	99.900	9.0	31.208	37.636	23.282	99.900
7.0	31.202	37.636	23.285	99.900	10.0	31.207	37.636	23.283	99.900
10.0	31.207	37.636	23.283	99.900					

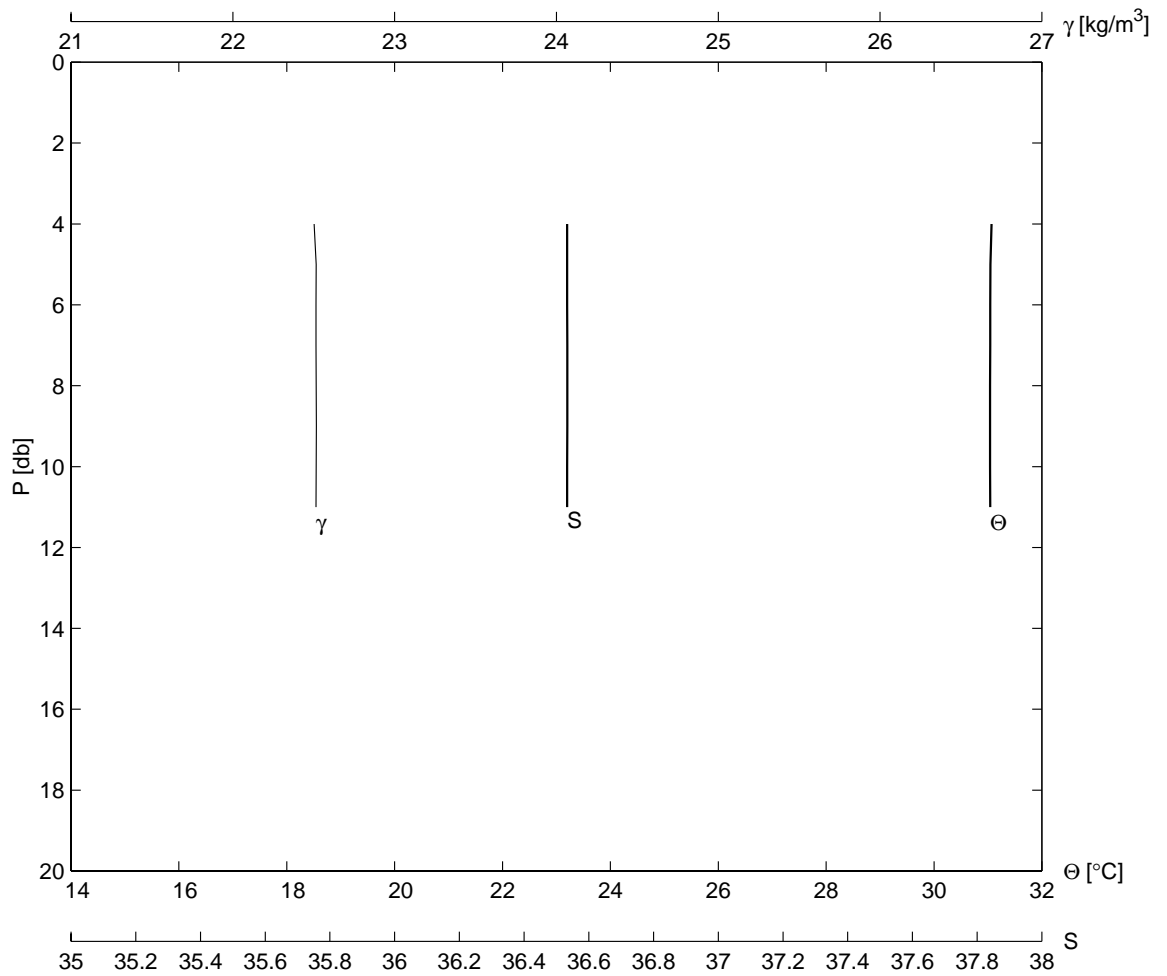


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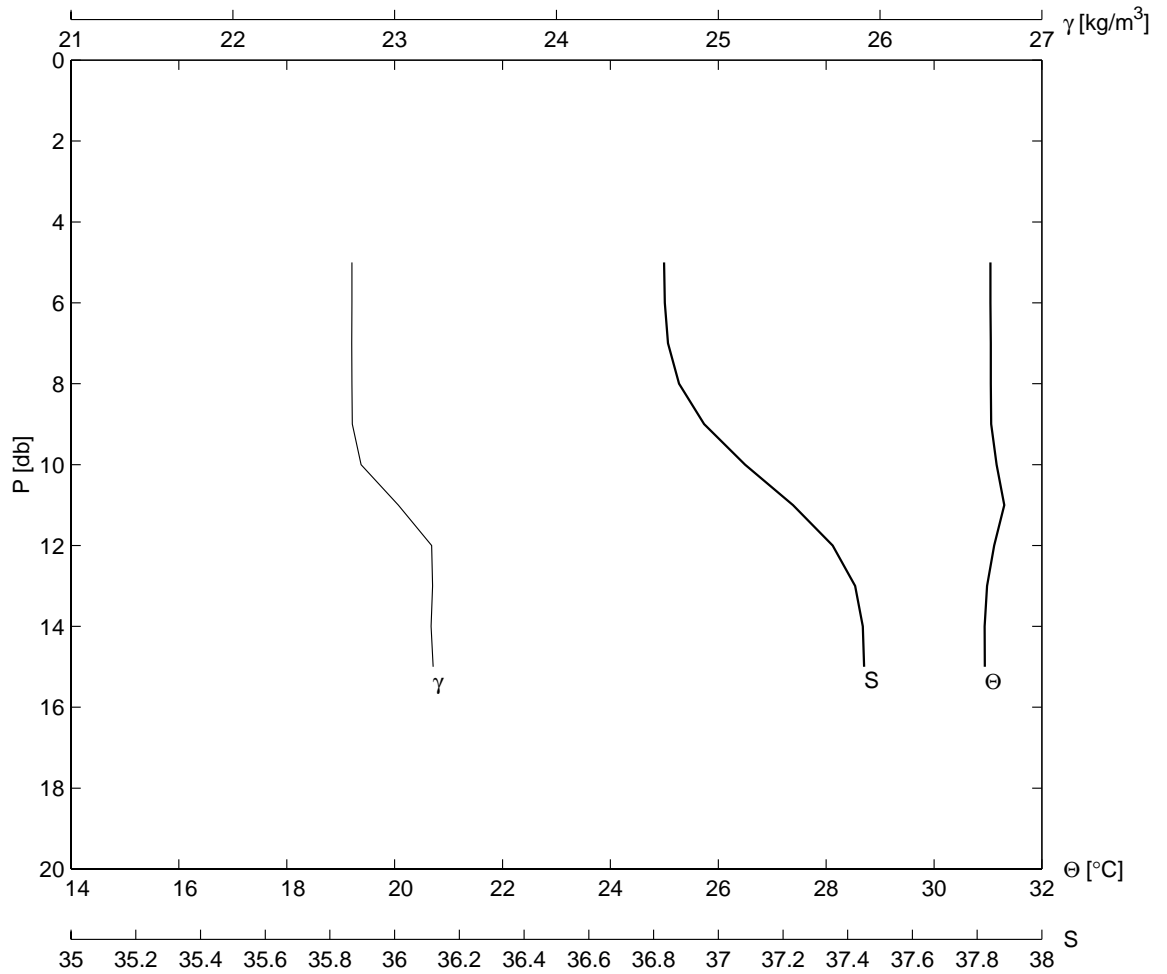
ESTACION	LANCE	LATITUD	LONGITUD	DD	MM	AA	H[UT]		
A01	6	31 28.7	114 47.5	9	8	2000	0303		
PROFTOT	TEMSUP	SALSUP	TEBUHU	TEBUSE	V-MAG	DIR	NUBES	BAROM	
[m]	[°C]	[ups]	[°C]	[°C]	[m/s]	[AZM]	[1/8]	[bar]	
9.0	31.1	36.55	27.3	30.6	3.2	81	9	1004.0	
PR	$\Theta$	SA	$\gamma$	OX	PR	$\Theta$	SA	$\gamma$	OX
[db]	[°C]		[kg/m <sup>3</sup> ]	[ml/l]	[db]	[°C]		[kg/m <sup>3</sup> ]	[ml/l]
3.0	30.765	36.564	22.635	99.900	7.0	30.762	36.557	22.631	99.900
4.0	30.763	36.555	22.629	99.900	8.0	30.759	36.550	22.626	99.900
5.0	30.757	36.551	22.627	99.900	9.0	30.760	36.550	22.626	99.900
6.0	30.758	36.550	22.627	99.900	9.0	30.760	36.550	22.626	99.900



ESTACION	LANCE	LATITUD	LONGITUD	DD	MM	AA	H[UT]		
B01	7	31 24.8	114 48.3	9	8	2000	0349		
PROFTOT	TEMSUP	SALSUP	TEBUHU	TEBUSE	V-MAG	DIR	NUBES	BAROM	
[m]	[°C]	[ups]	[°C]	[°C]	[m/s]	[AZM]	[1/8]	[bar]	
11.0	31.4	36.52	26.5	30.0	3.5	87	9	1003.0	
PR	Θ	SA	γ	OX	PR	Θ	SA	γ	OX
[db]	[°C]		[kg/m <sup>3</sup> ]	[ml/l]	[db]	[°C]		[kg/m <sup>3</sup> ]	[ml/l]
4.0	31.065	36.528	22.503	99.900	8.0	31.040	36.533	22.515	99.900
5.0	31.045	36.535	22.515	99.900	9.0	31.040	36.534	22.516	99.900
6.0	31.043	36.533	22.514	99.900	10.0	31.040	36.533	22.515	99.900
7.0	31.043	36.533	22.514	99.900	11.0	31.043	36.532	22.514	99.900

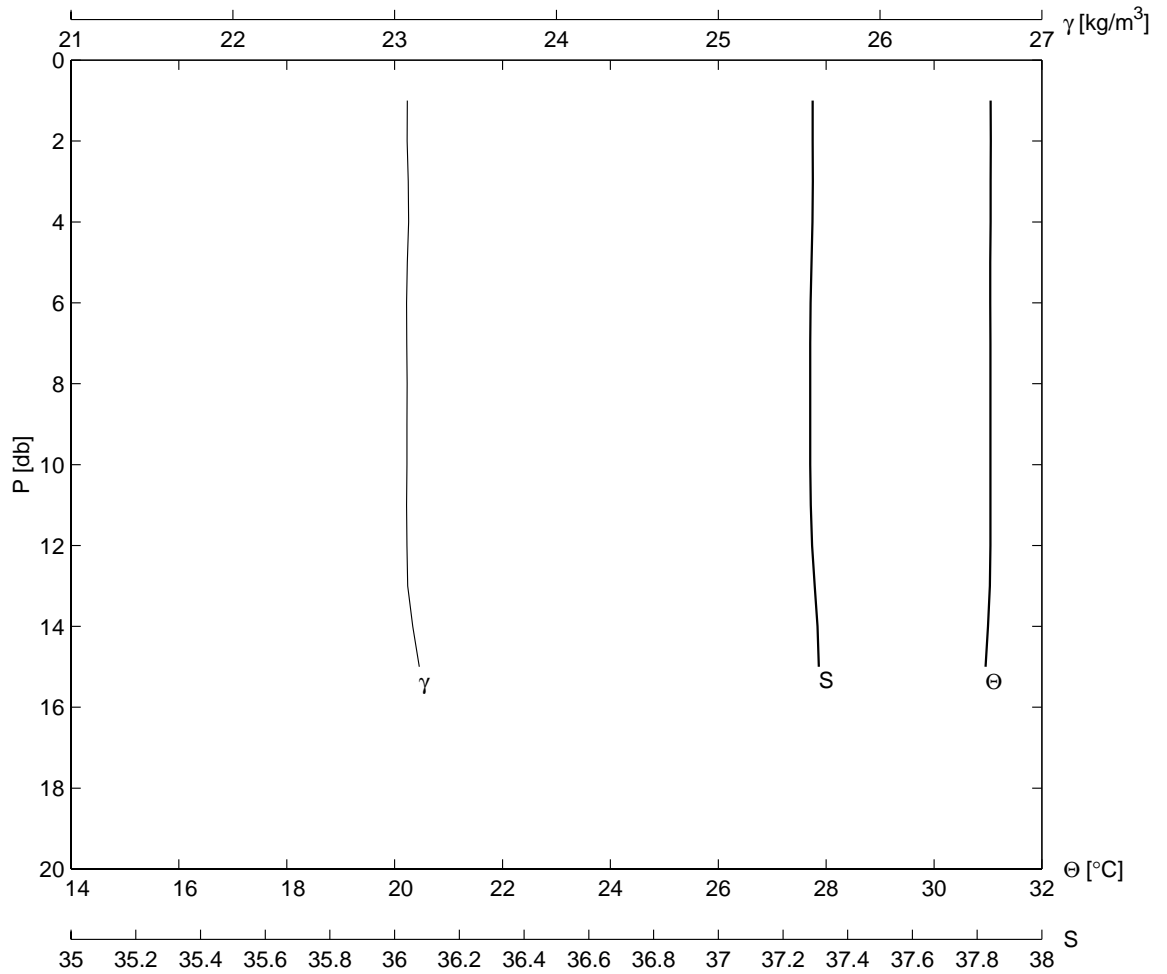


ESTACION	LANCE	LATITUD	LONGITUD	DD	MM	AA	H[UT]		
B02	8	31 25.9	114 47.2	9	8	2000	0411		
PROFTOT	TEMSUP	SALSUP	TEBUHU	TEBUSE	V-MAG	DIR	NUBES	BAROM	
[m]	[°C]	[ups]	[°C]	[°C]	[m/s]	[AZM]	[1/8]	[bar]	
15.0	31.4	36.82	27.5	31.0	2.8	84	9	1004.0	
PR	Θ	SA	γ	OX	PR	Θ	SA	γ	OX
[db]	[°C]		[kg/m <sup>3</sup> ]	[ml/l]	[db]	[°C]		[kg/m <sup>3</sup> ]	[ml/l]
5.0	31.047	36.832	22.736	99.900	9.0	31.059	36.840	22.738	99.900
6.0	31.047	36.832	22.736	99.900	10.0	31.161	36.960	22.792	99.900
7.0	31.055	36.833	22.735	99.900	15.0	30.944	37.452	23.238	99.900
8.0	31.054	36.834	22.736	99.900	15.0	30.944	37.452	23.238	99.900



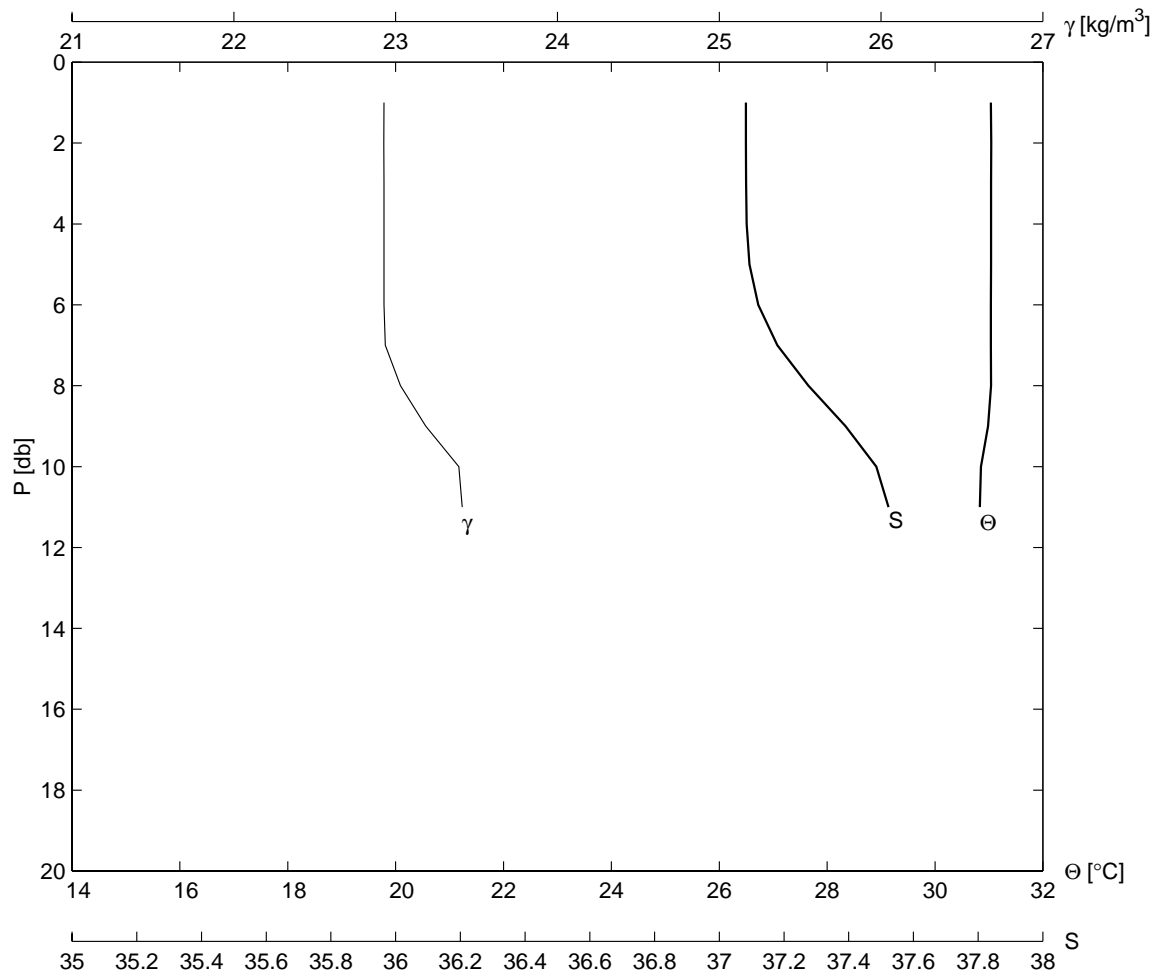
# A.9

ESTACION	LANCE	LATITUD	LONGITUD	DD	MM	AA	H[UT]		
B03	9	31 27.0	114 45.0	9	8	2000	0438		
PROFTOT	TEMSUP	SALSUP	TEBUHU	TEBUSE	V-MAG	DIR	NUBES	BAROM	
[m]	[°C]	[ups]	[°C]	[°C]	[m/s]	[AZM]	[1/8]	[bar]	
15.5	31.4	37.26	99.9	99.9	3.1	70	9	1003.0	
PR	Θ	SA	γ	OX	PR	Θ	SA	γ	OX
[db]	[°C]		[kg/m <sup>3</sup> ]	[ml/l]	[db]	[°C]		[kg/m <sup>3</sup> ]	[ml/l]
2.0	31.054	37.289	23.077	99.900	7.0	31.046	37.282	23.075	99.900
3.0	31.048	37.297	23.085	99.900	8.0	31.046	37.285	23.077	99.900
4.0	31.049	37.298	23.086	99.900	9.0	31.047	37.285	23.076	99.900
5.0	31.044	37.286	23.078	99.900	10.0	31.047	37.284	23.076	99.900
6.0	31.043	37.280	23.074	99.900	15.0	30.957	37.345	23.153	99.900
15.0	30.957	37.345	23.153	99.900					



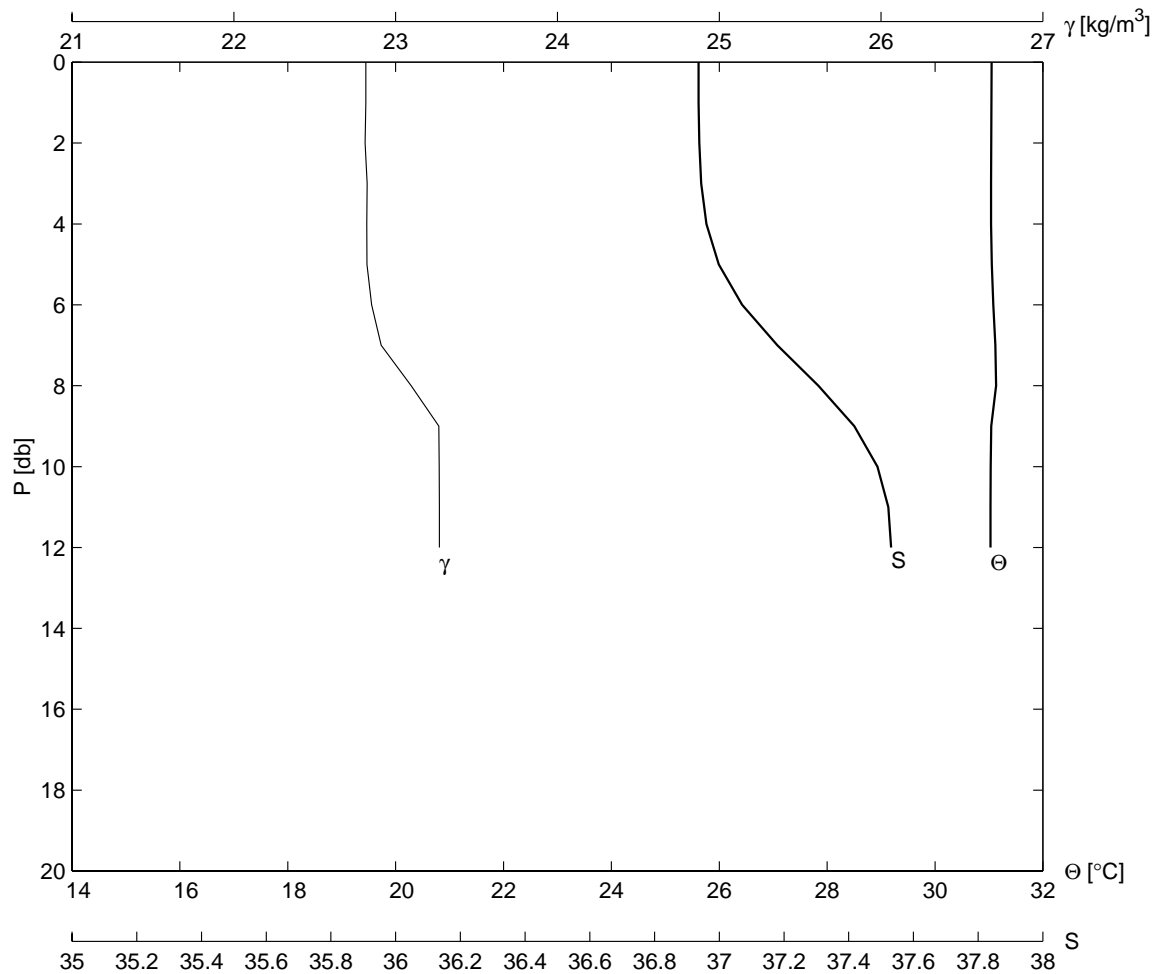
# A.10

ESTACION	LANCE	LATITUD	LONGITUD	DD	MM	AA	H[UT]		
B04	10	31 28.1	114 42.0	9	8	2000	0513		
PROFTOT	TEMSUP	SALSUP	TEBUHU	TEBUSE	V-MAG	DIR	NUBES	BAROM	
[m]	[°C]	[ups]	[°C]	[°C]	[m/s]	[AZM]	[1/8]	[bar]	
12.0	31.4	37.07	27.0	30.0	2.6	61	9	1004.0	
PR	Θ	SA	γ	OX	PR	Θ	SA	γ	OX
[db]	[°C]		[kg/m³]	[ml/l]	[db]	[°C]		[kg/m³]	[ml/l]
2.0	31.041	37.082	22.926	99.900	7.0	31.036	37.093	22.936	99.900
3.0	31.040	37.083	22.927	99.900	8.0	31.038	37.219	23.030	99.900
4.0	31.038	37.083	22.928	99.900	9.0	30.984	37.402	23.186	99.900
5.0	31.038	37.082	22.927	99.900	10.0	30.853	37.614	23.391	99.900
6.0	31.037	37.082	22.928	99.900	11.0	30.831	37.632	23.412	99.900

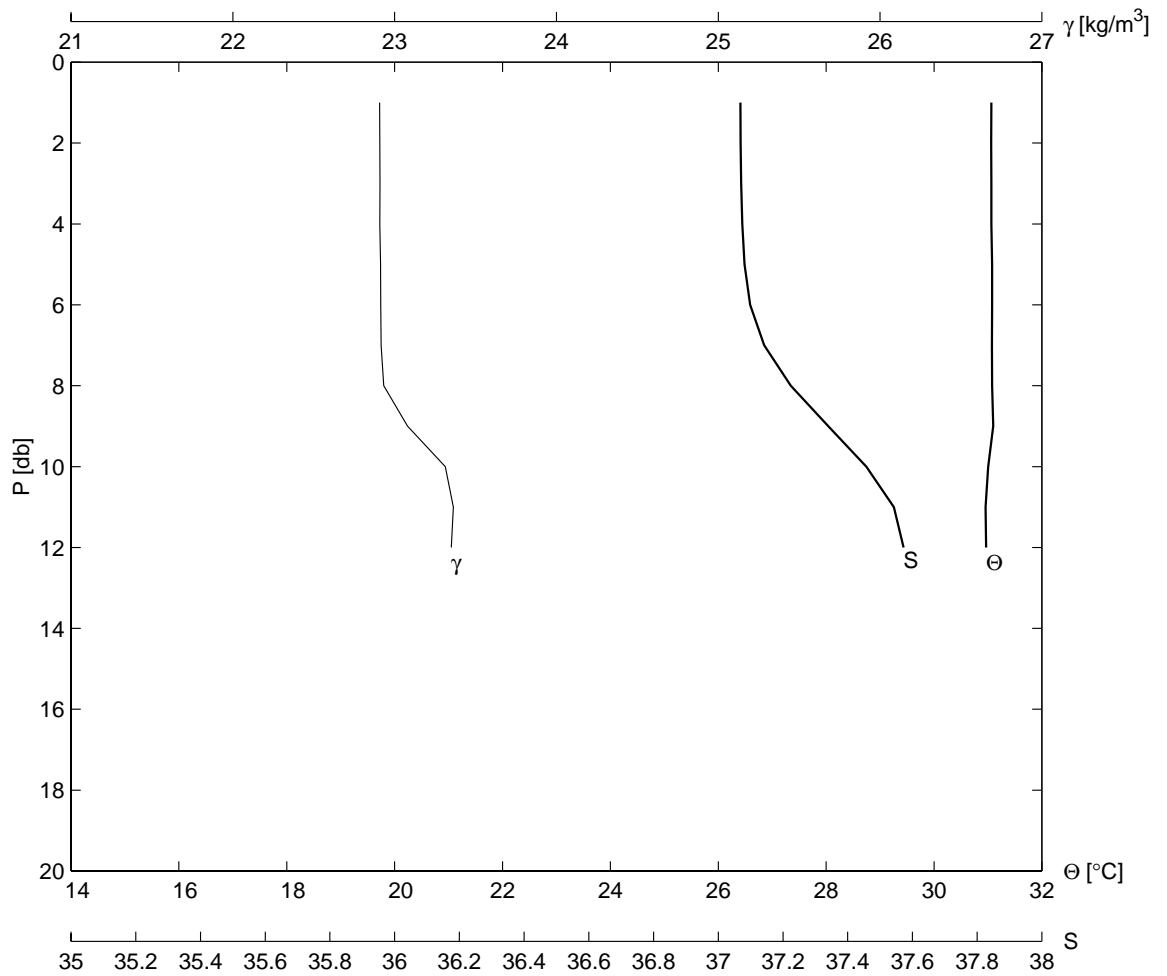


# A.11

ESTACION	LANCE	LATITUD	LONGITUD	DD	MM	AA	H[UT]		
B05	11	31 30.2	114 38.8	9	8	2000	0550		
PROFTOT	TEMSUP	SALSUP	TEBUHU	TEBUSE	V-MAG	DIR	NUBES	BAROM	
[m]	[°C]	[ups]	[°C]	[°C]	[m/s]	[AZM]	[1/8]	[bar]	
12.0	31.4	36.91	27.0	30.5	1.4	42	9	1004.0	
PR	Θ	SA	γ	OX	PR	Θ	SA	γ	OX
[db]	[°C]		[kg/m <sup>3</sup> ]	[ml/l]	[db]	[°C]		[kg/m <sup>3</sup> ]	[ml/l]
2.0	31.042	36.928	22.811	99.900	7.0	31.120	37.098	22.911	99.900
3.0	31.040	36.944	22.823	99.900	8.0	31.134	37.351	23.095	99.900
4.0	31.040	36.942	22.822	99.900	9.0	31.042	37.536	23.267	99.900
5.0	31.052	36.949	22.823	99.900	10.0	31.033	37.535	23.269	99.900
6.0	31.082	37.002	22.852	99.900	12.0	31.029	37.536	23.271	99.900

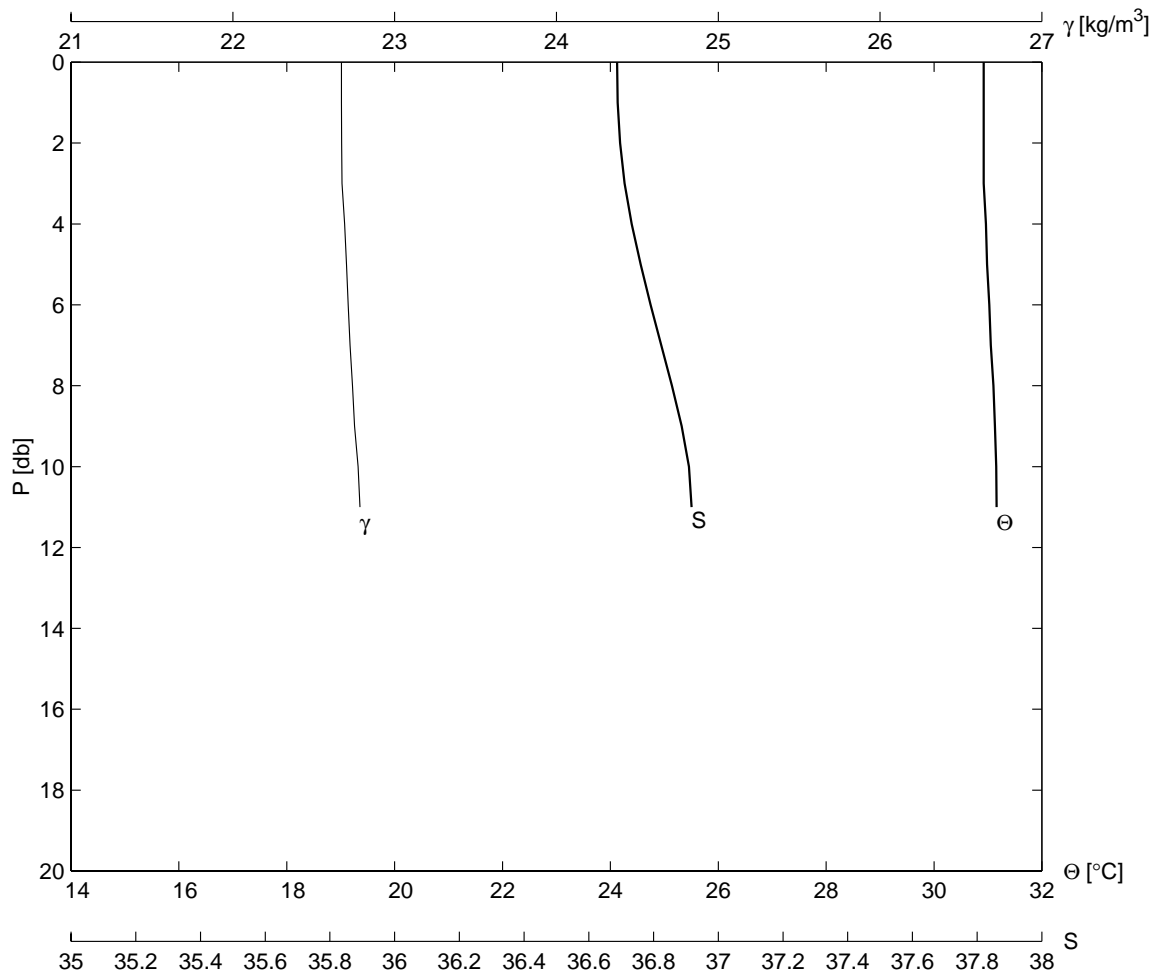


ESTACION	LANCE	LATITUD	LONGITUD	DD	MM	AA	H[UT]		
B06	12	31 31.1	114 37.2	9	8	2000	0614		
PROFTOT	TEMSUP	SALSUP	TEBUHU	TEBUSE	V-MAG	DIR	NUBES	BAROM	
[m]	[°C]	[ups]	[°C]	[°C]	[m/s]	[AZM]	[1/8]	[bar]	
12.0	31.4	37.04	27.5	30.5	2.2	77	9	1004.0	
PR	Θ	SA	γ	OX	PR	Θ	SA	γ	OX
[db]	[°C]		[kg/m <sup>3</sup> ]	[ml/l]	[db]	[°C]		[kg/m <sup>3</sup> ]	[ml/l]
2.0	31.059	37.067	22.909	99.900	7.0	31.075	37.084	22.916	99.900
3.0	31.062	37.069	22.909	99.900	8.0	31.077	37.108	22.933	99.900
4.0	31.064	37.070	22.909	99.900	9.0	31.099	37.314	23.080	99.900
5.0	31.076	37.081	22.913	99.900	10.0	31.003	37.580	23.313	99.900
6.0	31.076	37.082	22.914	99.900	12.0	30.967	37.612	23.350	99.900

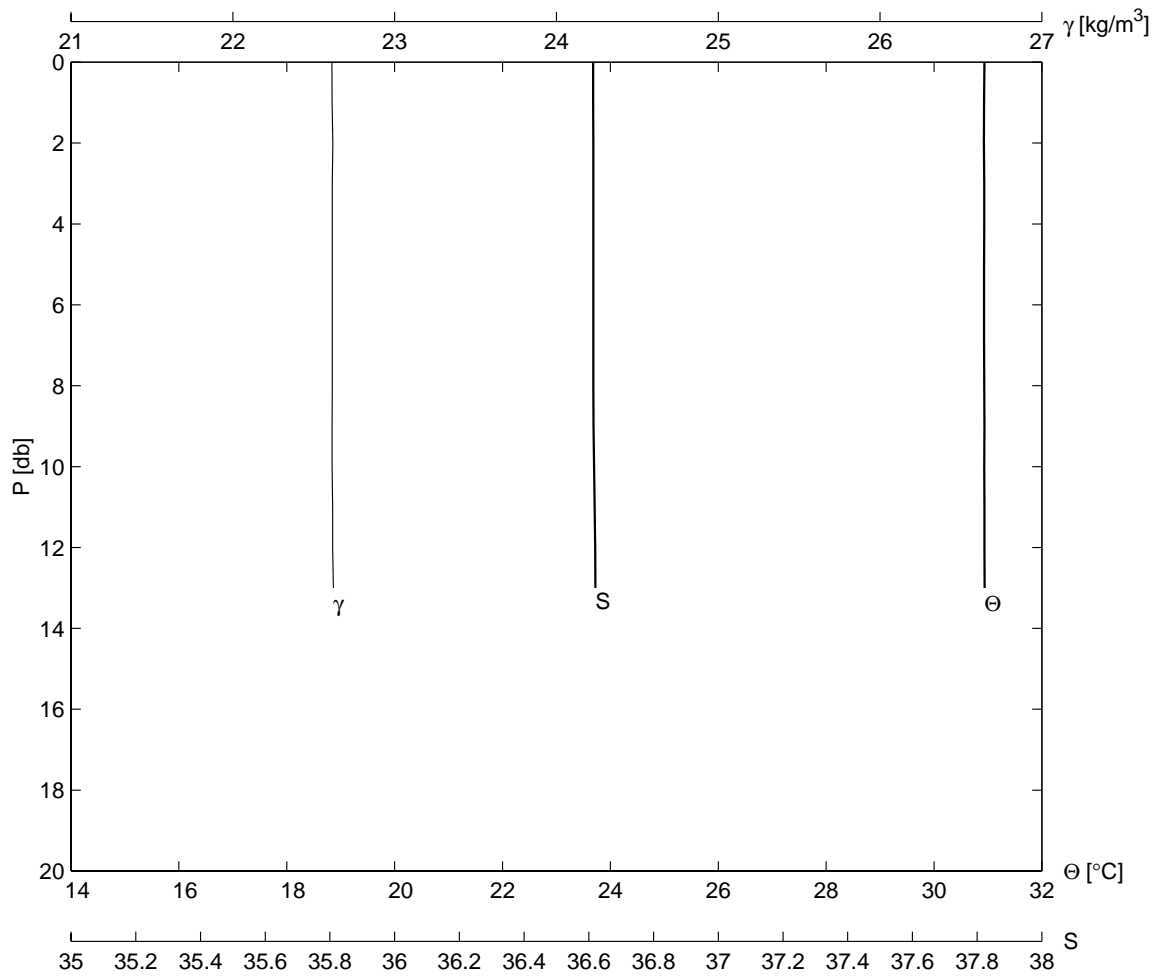




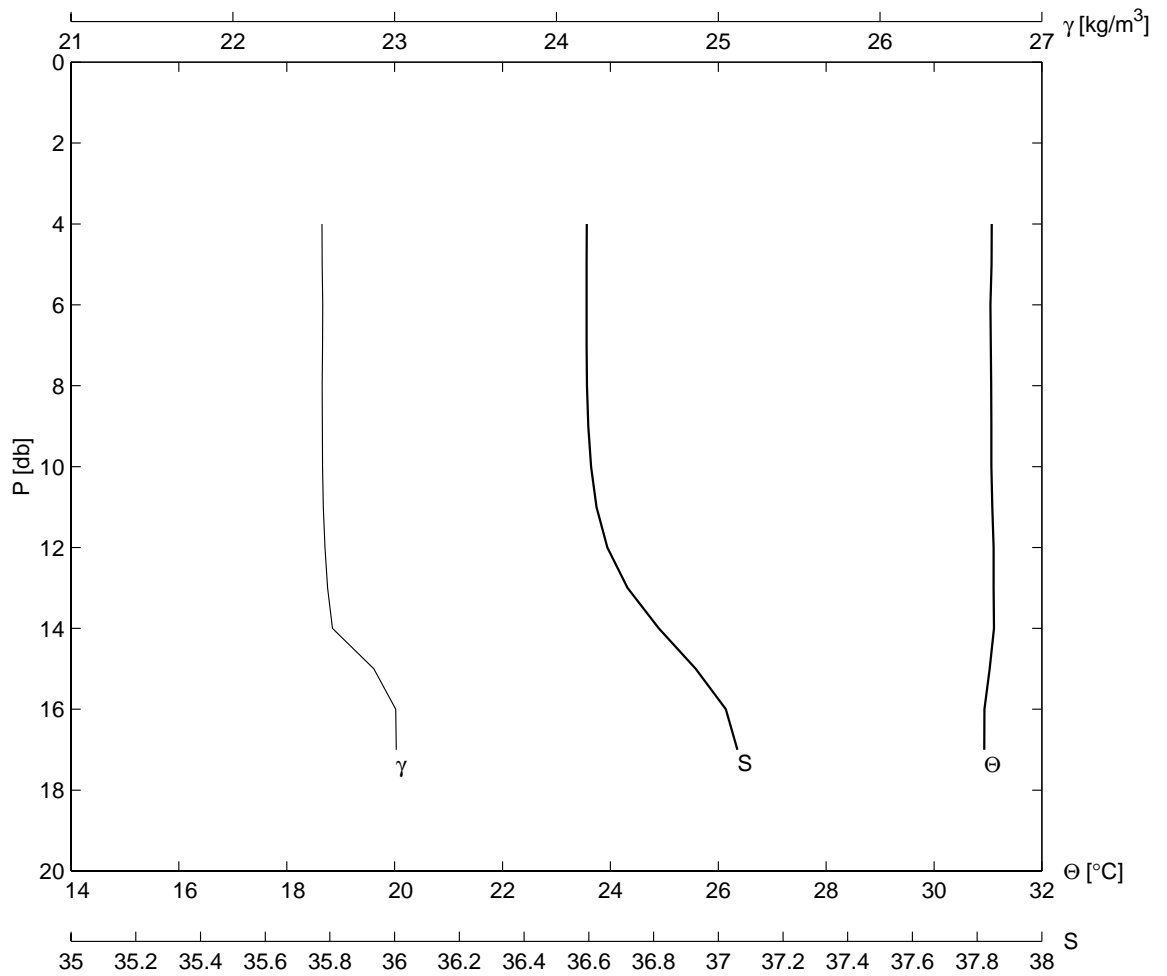
ESTACION	LANCE	LATITUD	LONGITUD	DD	MM	AA	H[UT]		
B07	13	31 32.0	114 34.0	9	8	2000	0647		
PROFTOT	TEMSUP	SALSUP	TEBUHU	TEBUSE	V-MAG	DIR	NUBES	BAROM	
[m]	[°C]	[ups]	[°C]	[°C]	[m/s]	[AZM]	[1/8]	[bar]	
12.5	31.3	30.66	99.9	99.9	2.0	116	9	994.0	
PR	Θ	SA	γ	OX	PR	Θ	SA	γ	OX
[db]	[°C]		[kg/m <sup>3</sup> ]	[ml/l]	[db]	[°C]		[kg/m <sup>3</sup> ]	[ml/l]
2.0	30.920	36.687	22.672	99.900	7.0	31.054	36.819	22.724	99.900
3.0	30.923	36.691	22.674	99.900	8.0	31.100	36.861	22.740	99.900
4.0	30.962	36.731	22.691	99.900	9.0	31.129	36.890	22.752	99.900
5.0	30.985	36.758	22.703	99.900	10.0	31.153	36.931	22.774	99.900
6.0	31.025	36.789	22.713	99.900	11.0	31.160	36.950	22.786	99.900



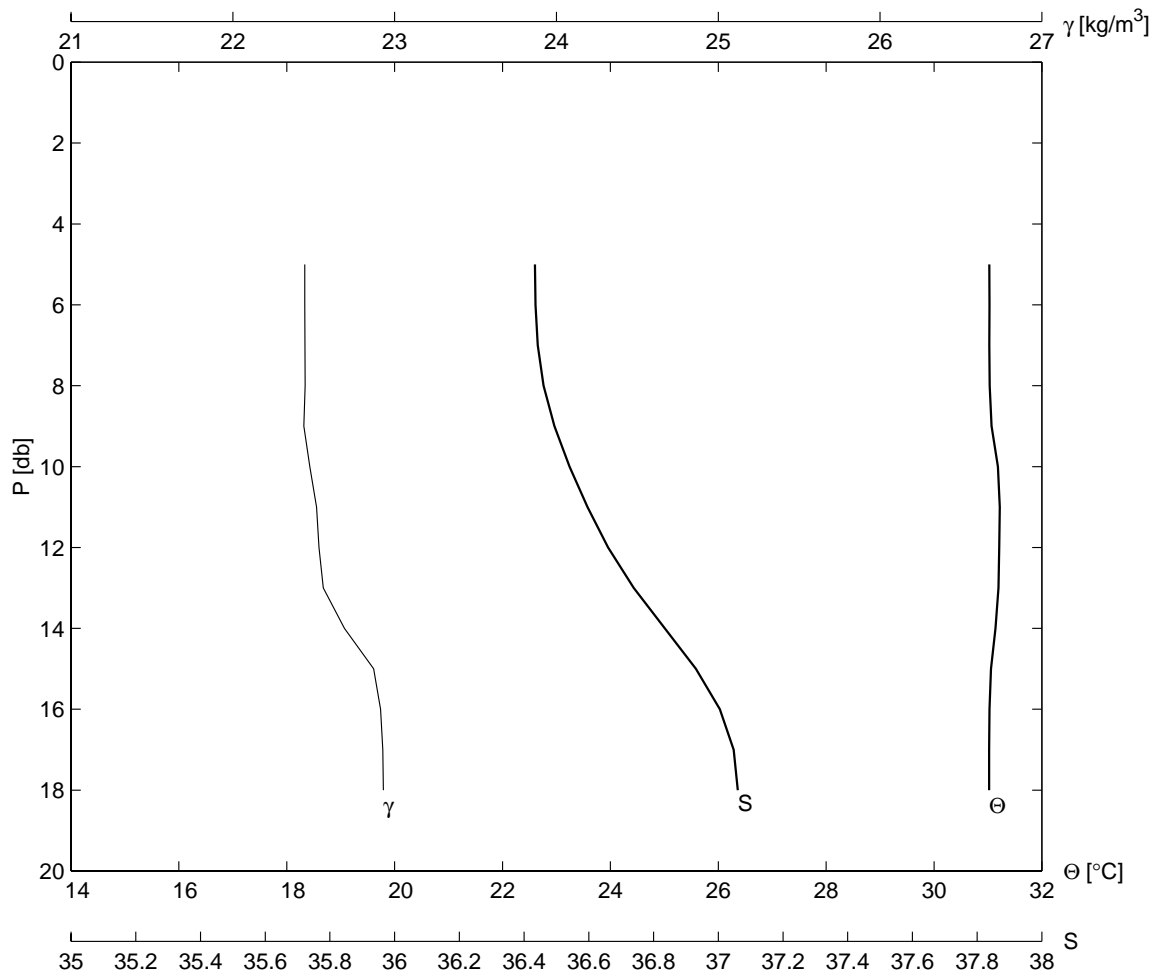
ESTACION	LANCE	LATITUD	LONGITUD	DD	MM	AA	H[UT]		
B08	14	31 33.0	114 31.9	9	8	2000	0713		
PROFTOT	TEMSUP	SALSUP	TEBUHU	TEBUSE	V-MAG	DIR	NUBES	BAROM	
[m]	[°C]	[ups]	[°C]	[°C]	[m/s]	[AZM]	[1/8]	[bar]	
14.1	31.3	36.59	27.5	31.5	2.0	35	9	1005.0	
PR	Θ	SA	γ	OX	PR	Θ	SA	γ	OX
[db]	[°C]		[kg/m <sup>3</sup> ]	[ml/l]	[db]	[°C]		[kg/m <sup>3</sup> ]	[ml/l]
2.0	30.923	36.615	22.618	99.900	7.0	30.928	36.613	22.615	99.900
3.0	30.931	36.615	22.615	99.900	8.0	30.930	36.614	22.614	99.900
4.0	30.931	36.615	22.615	99.900	9.0	30.934	36.614	22.613	99.900
5.0	30.928	36.614	22.615	99.900	10.0	30.930	36.614	22.614	99.900
6.0	30.928	36.614	22.615	99.900	13.0	30.939	36.627	22.621	99.900



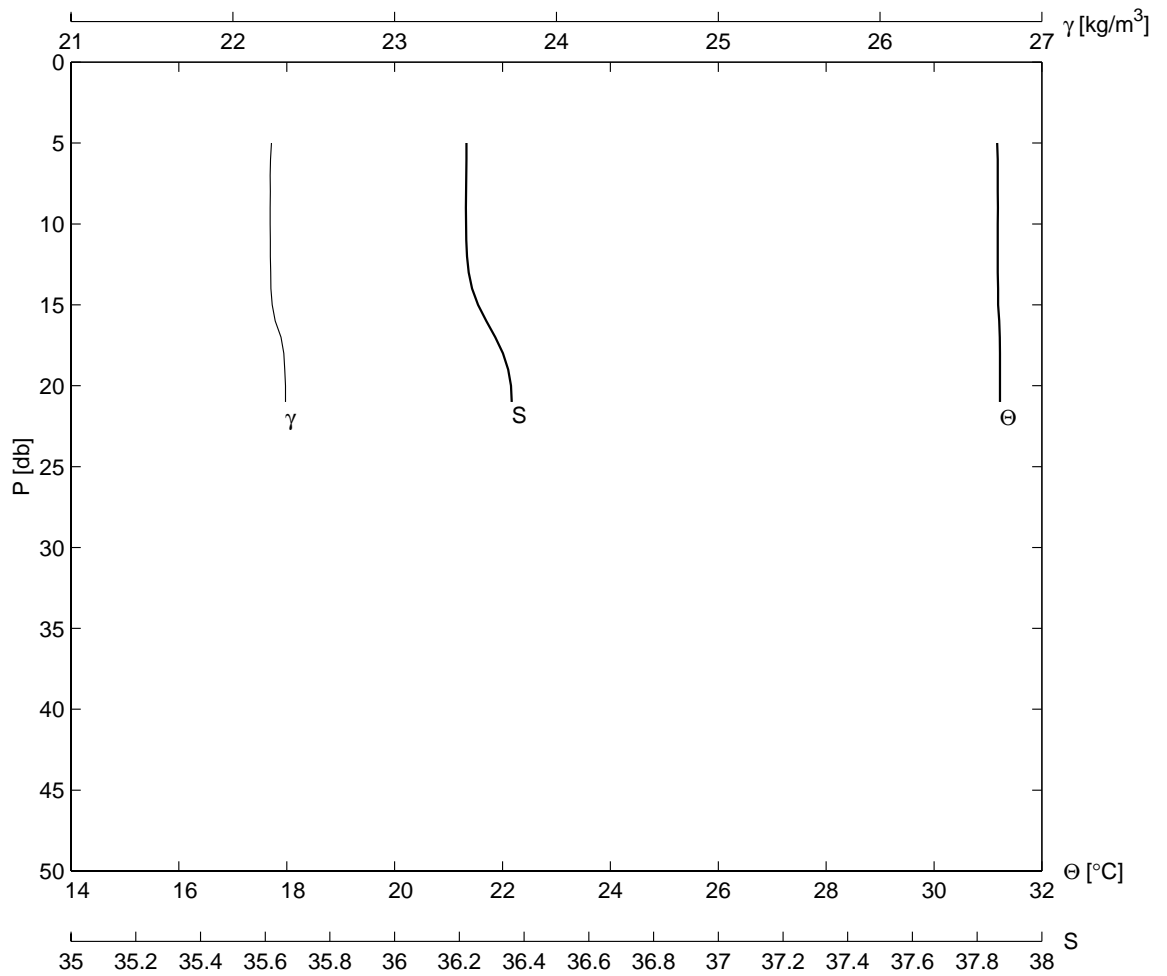
ESTACION	LANCE	LATITUD	LONGITUD	DD	MM	AA	H[UT]		
B09	15	31 35.0	114 29.9	9	8	2000	0746		
PROFTOT	TEMSUP	SALSUP	TEBUHU	TEBUSE	V-MAG	DIR	NUBES	BAROM	
[m]	[°C]	[ups]	[°C]	[°C]	[m/s]	[AZM]	[1/8]	[bar]	
17.9	31.4	36.56	27.5	30.5	2.3	57	9	1004.0	
PR	Θ	SA	γ	OX	PR	Θ	SA	γ	OX
[db]	[°C]		[kg/m <sup>3</sup> ]	[ml/l]	[db]	[°C]		[kg/m <sup>3</sup> ]	[ml/l]
4.0	31.069	36.594	22.551	99.900	8.0	31.059	36.592	22.553	99.900
5.0	31.066	36.595	22.552	99.900	9.0	31.062	36.594	22.553	99.900
6.0	31.047	36.591	22.556	99.900	10.0	31.063	36.597	22.555	99.900
7.0	31.054	36.592	22.555	99.900	15.0	31.031	37.005	22.872	99.900
17.0	30.930	37.143	23.011	99.900					



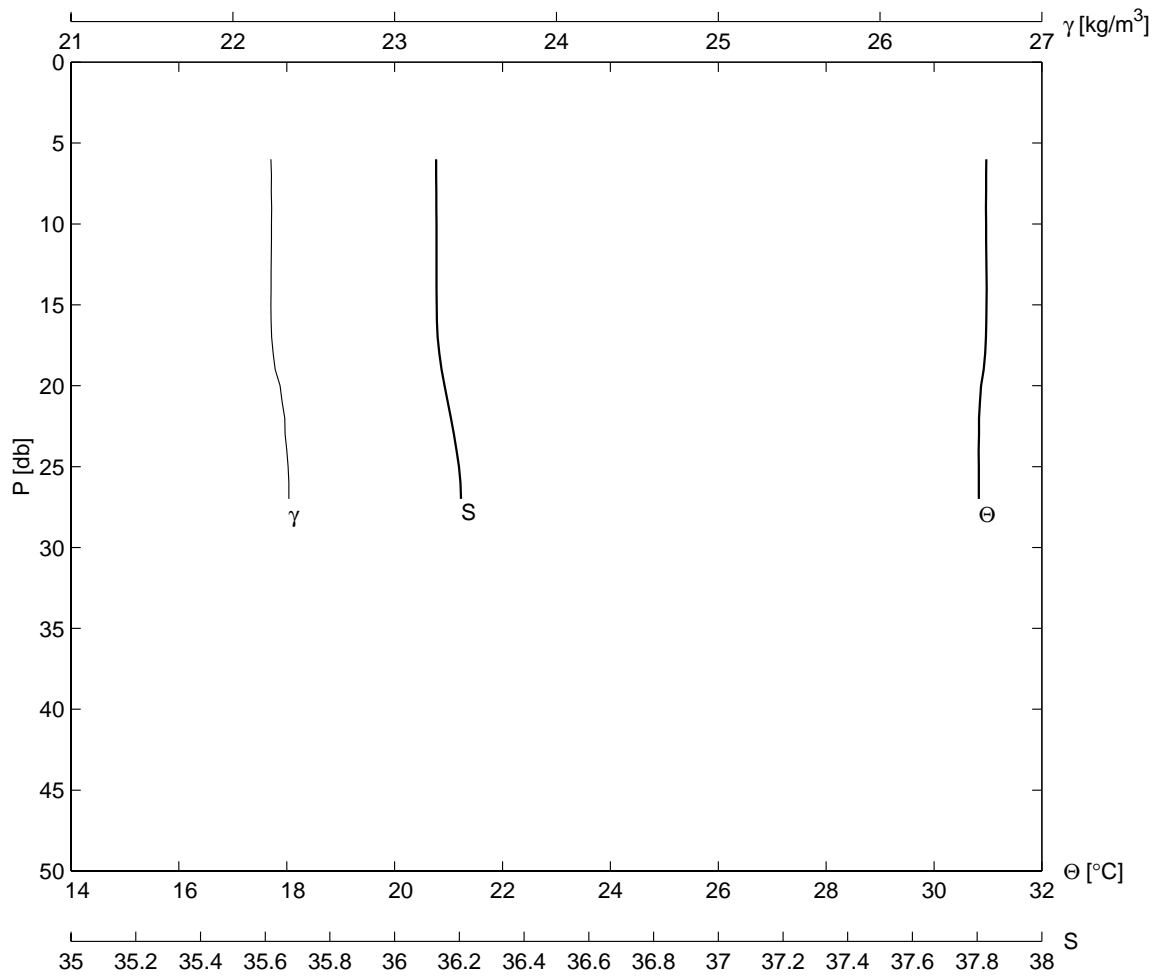
ESTACION	LANCE	LATITUD	LONGITUD	DD	MM	AA	H[UT]		
B10	16	31 35.9	114 27.1	9	8	2000	0819		
PROFTOT	TEMSUP	SALSUP	TEBUHU	TEBUSE	V-MAG	DIR	NUBES	BAROM	
[m]	[°C]	[ups]	[°C]	[°C]	[m/s]	[AZM]	[1/8]	[bar]	
18.2	31.4	36.41	27.0	30.3	2.9	350	9	1003.0	
PR	Θ	SA	γ	OX	PR	Θ	SA	γ	OX
[db]	[°C]		[kg/m <sup>3</sup> ]	[ml/l]	[db]	[°C]		[kg/m <sup>3</sup> ]	[ml/l]
5.0	31.024	36.431	22.444	99.900	9.0	31.065	36.443	22.439	99.900
6.0	31.027	36.433	22.445	99.900	10.0	31.186	36.548	22.475	99.900
7.0	31.026	36.434	22.446	99.900	15.0	31.057	37.015	22.871	99.900
8.0	31.033	36.438	22.447	99.900	18.0	31.021	37.078	22.930	99.900



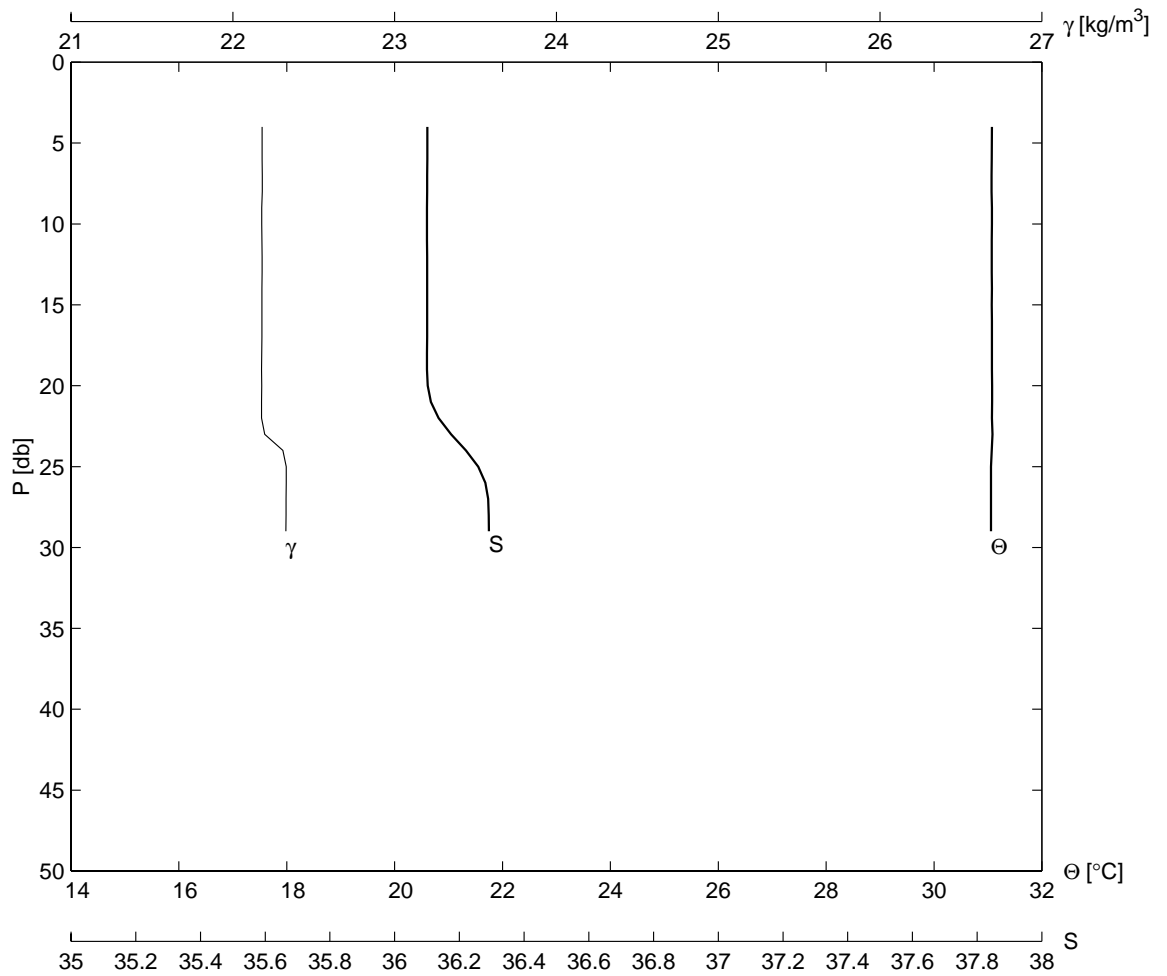
ESTACION	LANCE	LATITUD	LONGITUD	DD	MM	AA	H[UT]		
C12	17	31 33.0	114 21.9	9	8	2000	0912		
PROFTOT	TEMSUP	SALSUP	TEBUHU	TEBUSE	V-MAG	DIR	NUBES	BAROM	
[m]	[°C]	[ups]	[°C]	[°C]	[m/s]	[AZM]	[1/8]	[bar]	
21.5	31.5	36.20	27.0	29.5	3.2	49	9	1003.0	
PR	Θ	SA	γ	OX	PR	Θ	SA	γ	OX
[db]	[°C]		[kg/m <sup>3</sup> ]	[ml/l]	[db]	[°C]		[kg/m <sup>3</sup> ]	[ml/l]
5.0	31.171	36.225	22.239	99.900	9.0	31.183	36.220	22.230	99.900
6.0	31.180	36.222	22.233	99.900	10.0	31.183	36.220	22.231	99.900
7.0	31.182	36.219	22.230	99.900	15.0	31.187	36.238	22.243	99.900
8.0	31.182	36.221	22.231	99.900	20.0	31.223	36.365	22.326	99.900
21.0	31.223	36.365	22.325	99.900					



ESTACION	LANCE	LATITUD	LONGITUD	DD	MM	AA	H[UT]		
D13	18	31 29.9	114 19.0	9	8	2000	0955		
PROFTOT	TEMSUP	SALSUP	TEBUHU	TEBUSE	V-MAG	DIR	NUBES	BAROM	
[m]	[°C]	[ups]	[°C]	[°C]	[m/s]	[AZM]	[1/8]	[bar]	
27.3	31.3	36.11	27.7	30.3	2.6	110	9	1004.0	
PR	Θ	SA	γ	OX	PR	Θ	SA	γ	OX
[db]	[°C]		[kg/m <sup>3</sup> ]	[ml/l]	[db]	[°C]		[kg/m <sup>3</sup> ]	[ml/l]
6.0	30.969	36.126	22.236	99.900	10.0	30.965	36.129	22.239	99.900
7.0	30.966	36.129	22.238	99.900	15.0	30.972	36.127	22.235	99.900
8.0	30.967	36.129	22.238	99.900	20.0	30.872	36.156	22.291	99.900
9.0	30.964	36.130	22.240	99.900	25.0	30.829	36.203	22.341	99.900
27.0	30.829	36.209	22.346	99.900					

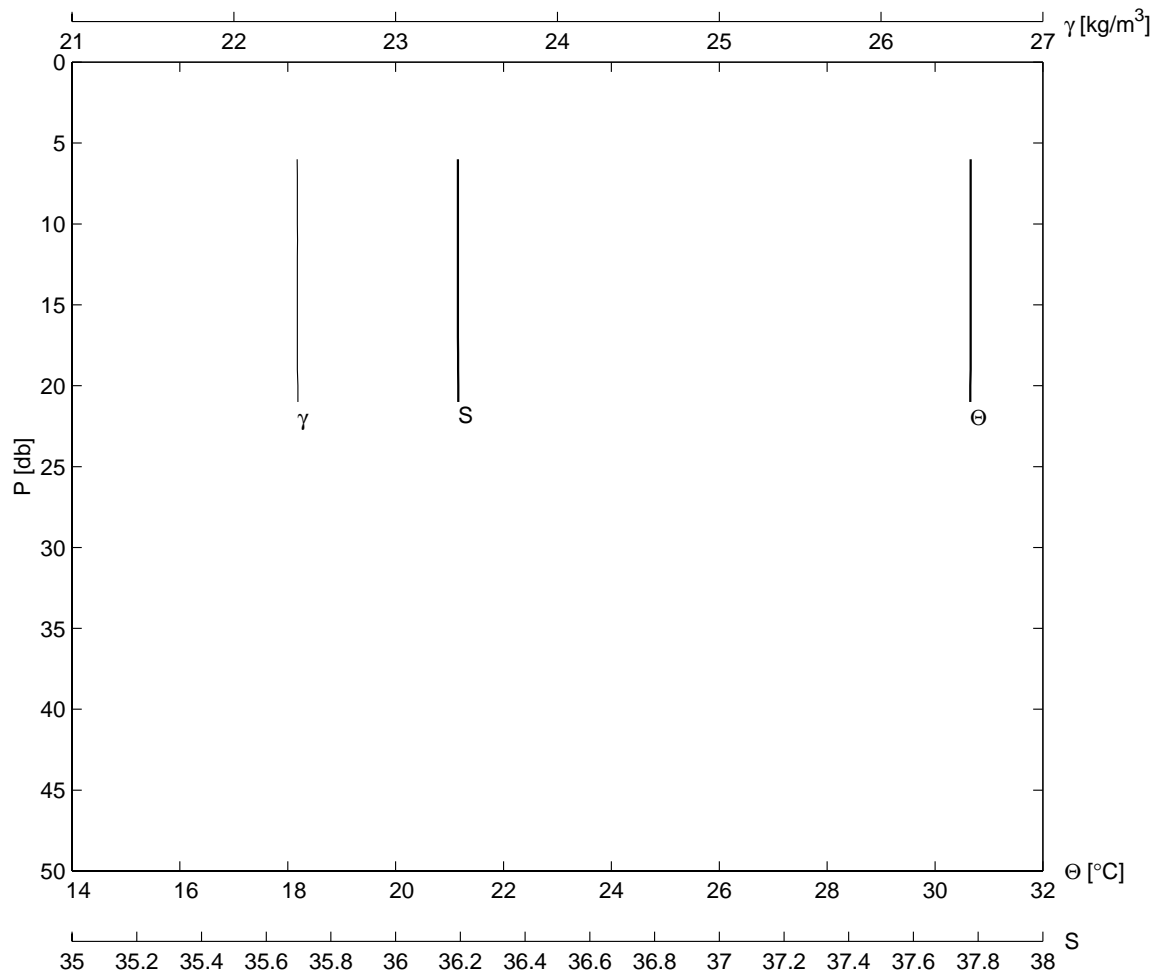


ESTACION	LANCE	LATITUD	LONGITUD	DD	MM	AA	H[UT]		
D11	19	31 26.9	114 23.9	9	8	2000	1053		
PROFTOT	TEMSUP	SALSUP	TEBUHU	TEBUSE	V-MAG	DIR	NUBES	BAROM	
[m]	[°C]	[ups]	[°C]	[°C]	[m/s]	[AZM]	[1/8]	[bar]	
29.0	31.4	36.08	27.0	30.5	2.5	59	9	1004.0	
PR	Θ	SA	γ	OX	PR	Θ	SA	γ	OX
[db]	[°C]		[kg/m <sup>3</sup> ]	[ml/l]	[db]	[°C]		[kg/m <sup>3</sup> ]	[ml/l]
4.0	31.075	36.102	22.180	99.900	10.0	31.072	36.099	22.179	99.900
6.0	31.071	36.101	22.180	99.900	15.0	31.072	36.101	22.180	99.900
7.0	31.066	36.100	22.182	99.900	20.0	31.076	36.100	22.178	99.900
8.0	31.067	36.101	22.182	99.900	25.0	31.055	36.293	22.331	99.900
9.0	31.073	36.099	22.179	99.900	29.0	31.055	36.291	22.328	99.900



# A.20

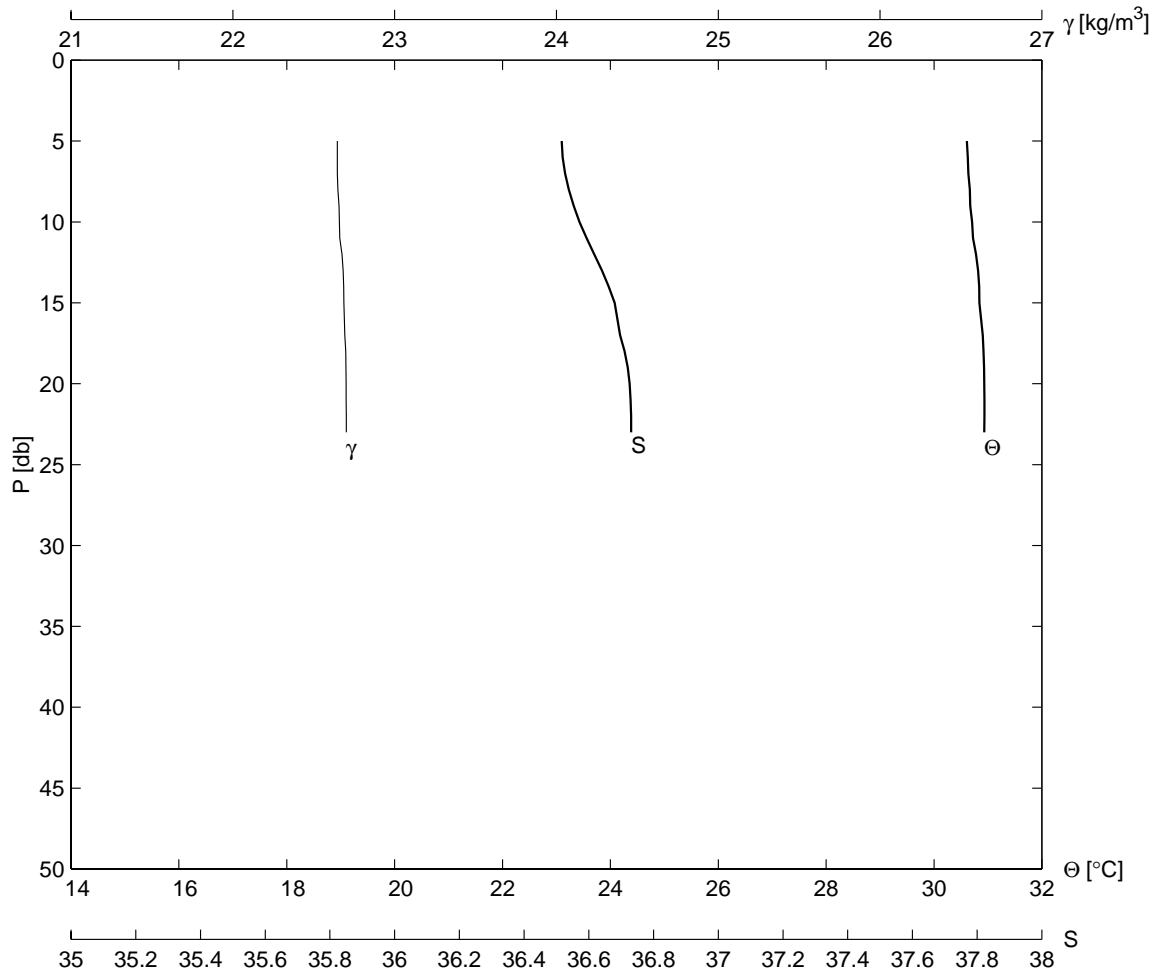
ESTACION	LANCE	LATITUD	LONGITUD	DD	MM	AA	H[UT]		
D09	20	31 23.9	114 30.1	9	8	2000	1159		
PROFTOT	TEMSUP	SALSUP	TEBUHU	TEBUSE	V-MAG	DIR	NUBES	BAROM	
[m]	[°C]	[ups]	[°C]	[°C]	[m/s]	[AZM]	[1/8]	[bar]	
21.1	31.0	31.17	27.7	30.5	2.5	18	9	964.0	
PR	Θ	SA	γ	OX	PR	Θ	SA	γ	OX
[db]	[°C]		[kg/m <sup>3</sup> ]	[ml/l]	[db]	[°C]		[kg/m <sup>3</sup> ]	[ml/l]
6.0	30.661	36.192	22.392	99.900	10.0	30.660	36.193	22.393	99.900
7.0	30.661	36.193	22.392	99.900	15.0	30.661	36.192	22.392	99.900
8.0	30.661	36.192	22.392	99.900	20.0	30.655	36.194	22.396	99.900
9.0	30.660	36.192	22.392	99.900	21.0	30.655	36.194	22.396	99.900



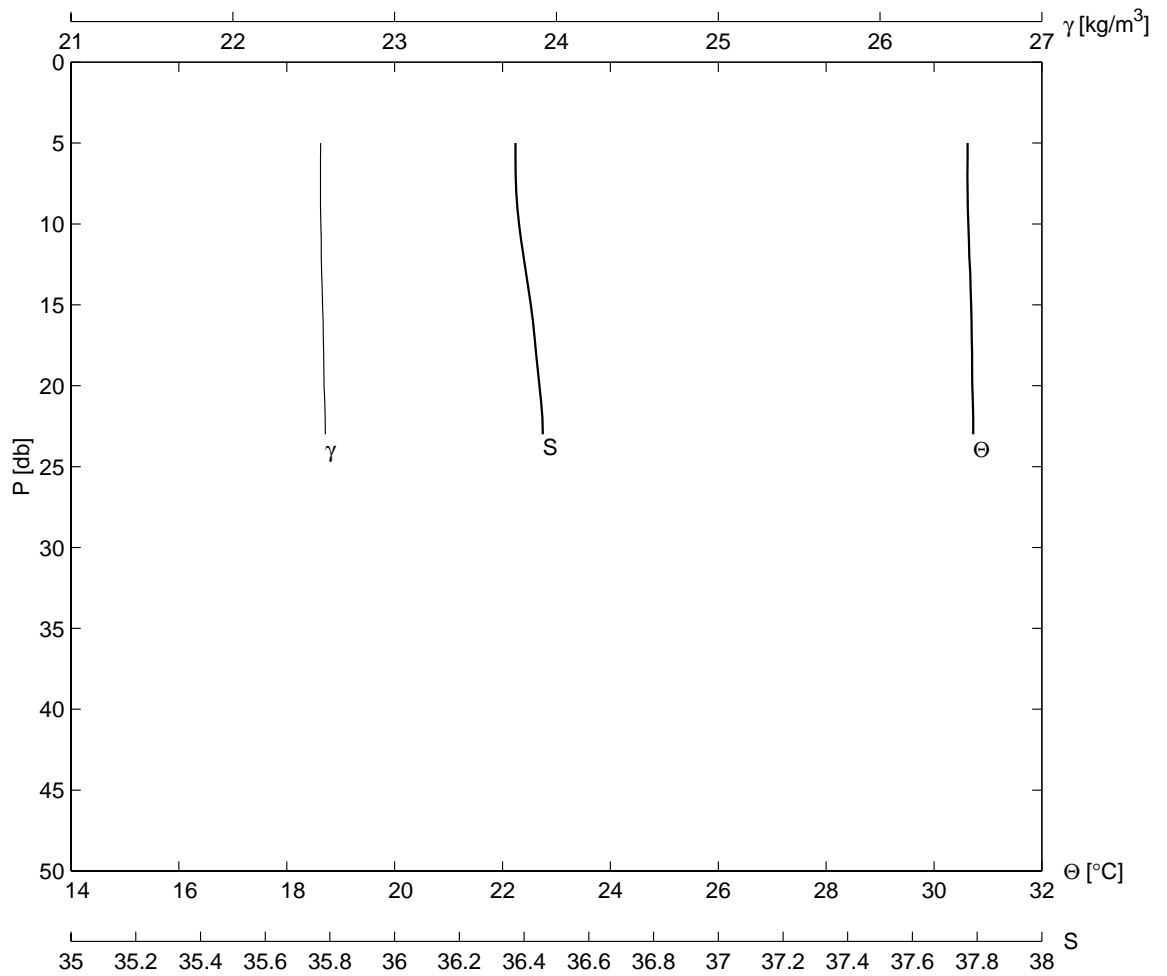


# A.21

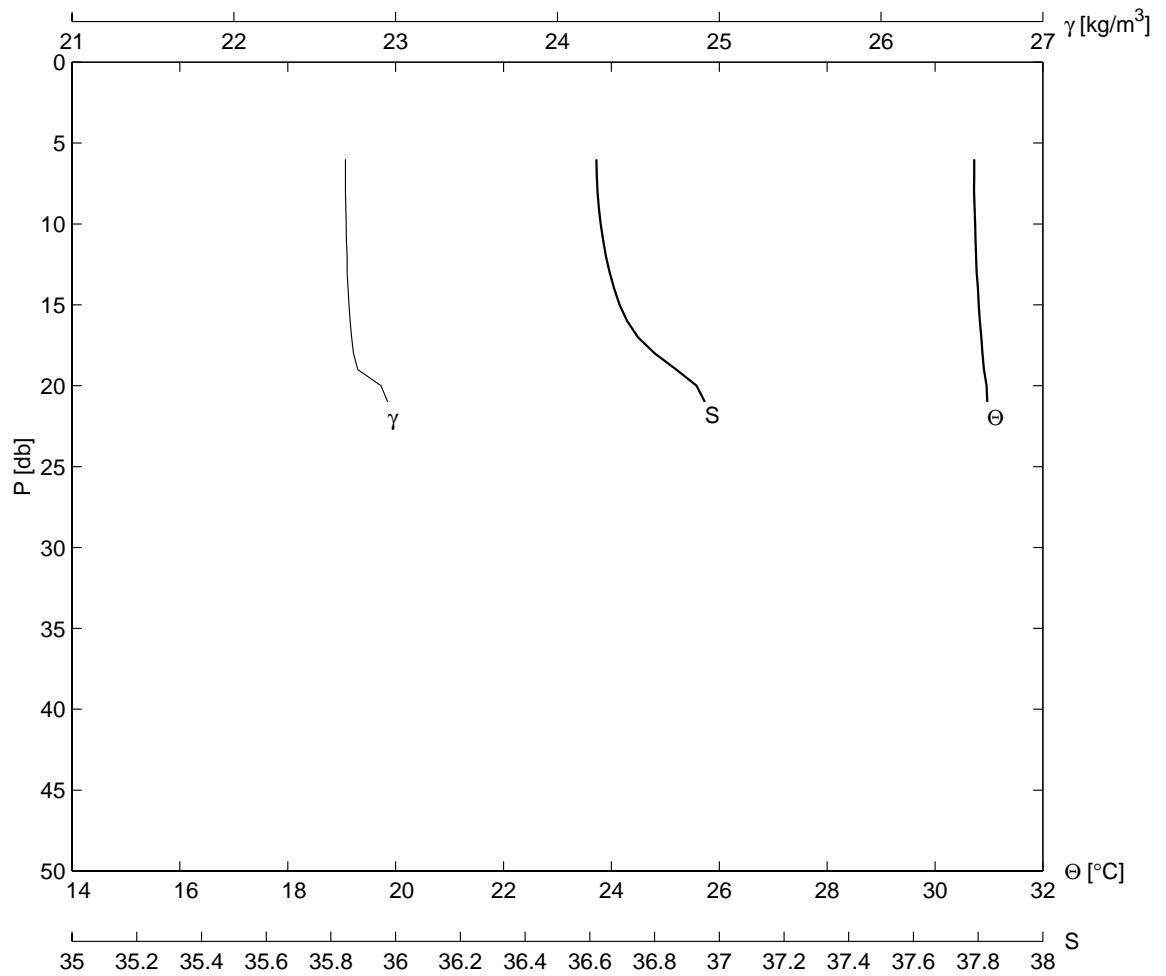
ESTACION	LANCE	LATITUD	LONGITUD	DD	MM	AA	H[UT]		
D07	21	31 22.0	114 33.9	9	8	2000	1236		
PROFTOT	TEMSUP	SALSUP	TEBUHU	TEBUSE	V-MAG	DIR	NUBES	BAROM	
[m]	[°C]	[ups]	[°C]	[°C]	[m/s]	[AZM]	[1/8]	[bar]	
23.0	31.0	36.48	27.6	31.0	2.5	18	9	964.0	
PR	Θ	SA	γ	OX	PR	Θ	SA	γ	OX
[db]	[°C]		[kg/m <sup>3</sup> ]	[ml/l]	[db]	[°C]		[kg/m <sup>3</sup> ]	[ml/l]
5.0	30.610	36.508	22.646	99.900	9.0	30.672	36.549	22.656	99.900
6.0	30.627	36.514	22.645	99.900	10.0	30.707	36.569	22.659	99.900
7.0	30.637	36.519	22.645	99.900	15.0	30.843	36.669	22.686	99.900
8.0	30.663	36.537	22.650	99.900	20.0	30.933	36.730	22.700	99.900
23.0	30.933	36.732	22.702	99.900					



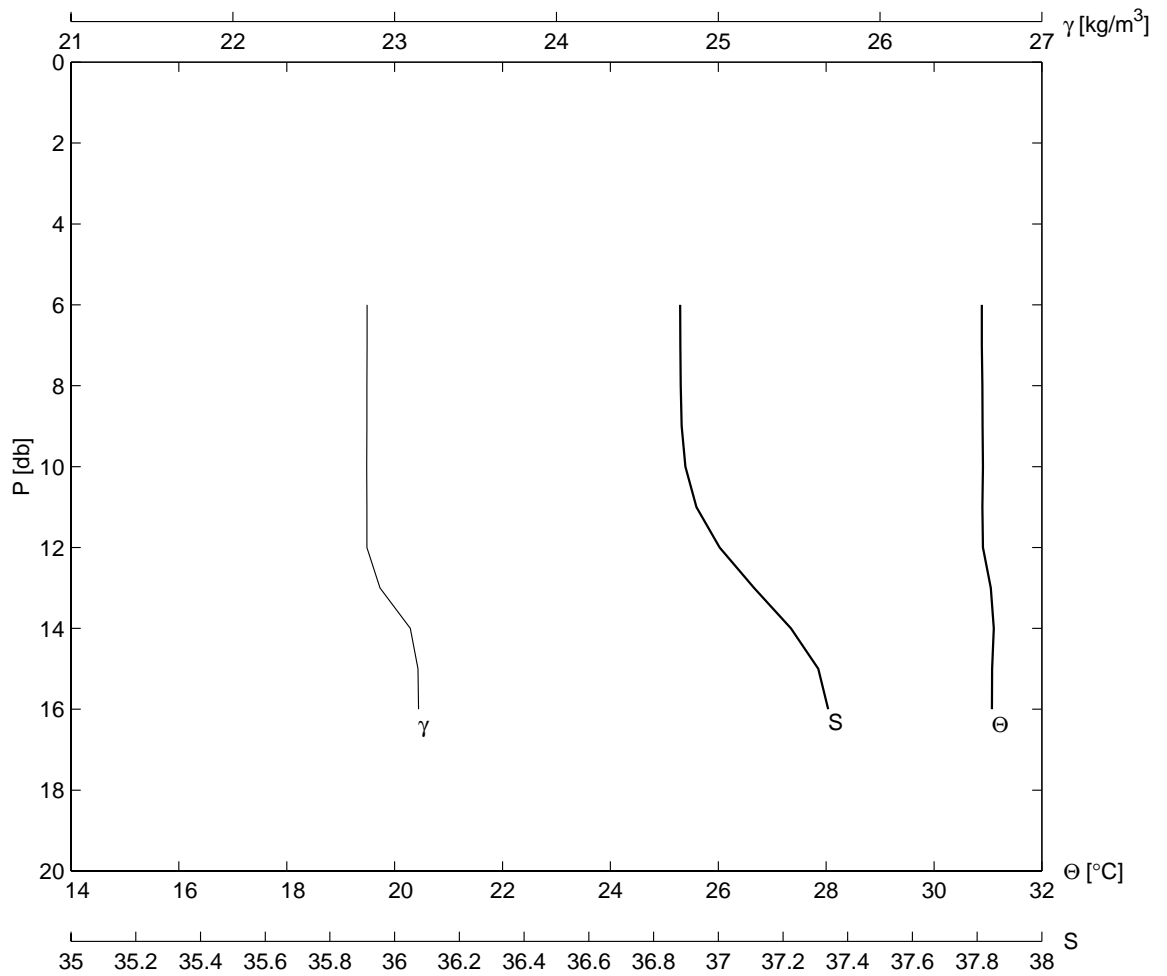
ESTACION	LANCE	LATITUD	LONGITUD	DD	MM	AA	H[UT]		
D06	22	31 21.0	114 37.1	9	8	2000	1306		
PROFTOT	TEMSUP	SALSUP	TEBUHU	TEBUSE	V-MAG	DIR	NUBES	BAROM	
[m]	[°C]	[ups]	[°C]	[°C]	[m/s]	[AZM]	[1/8]	[bar]	
23.0	31.0	36.35	27.6	30.3	0.0	999	9	1003.0	
PR	Θ	SA	γ	OX	PR	Θ	SA	γ	OX
[db]	[°C]		[kg/m³]	[ml/l]	[db]	[°C]		[kg/m³]	[ml/l]
5.0	30.621	36.374	22.543	99.900	9.0	30.626	36.375	22.541	99.900
6.0	30.621	36.373	22.542	99.900	10.0	30.637	36.383	22.544	99.900
7.0	30.621	36.373	22.542	99.900	15.0	30.688	36.421	22.554	99.900
8.0	30.621	36.373	22.541	99.900	20.0	30.711	36.445	22.564	99.900
23.0	30.726	36.462	22.572	99.900					



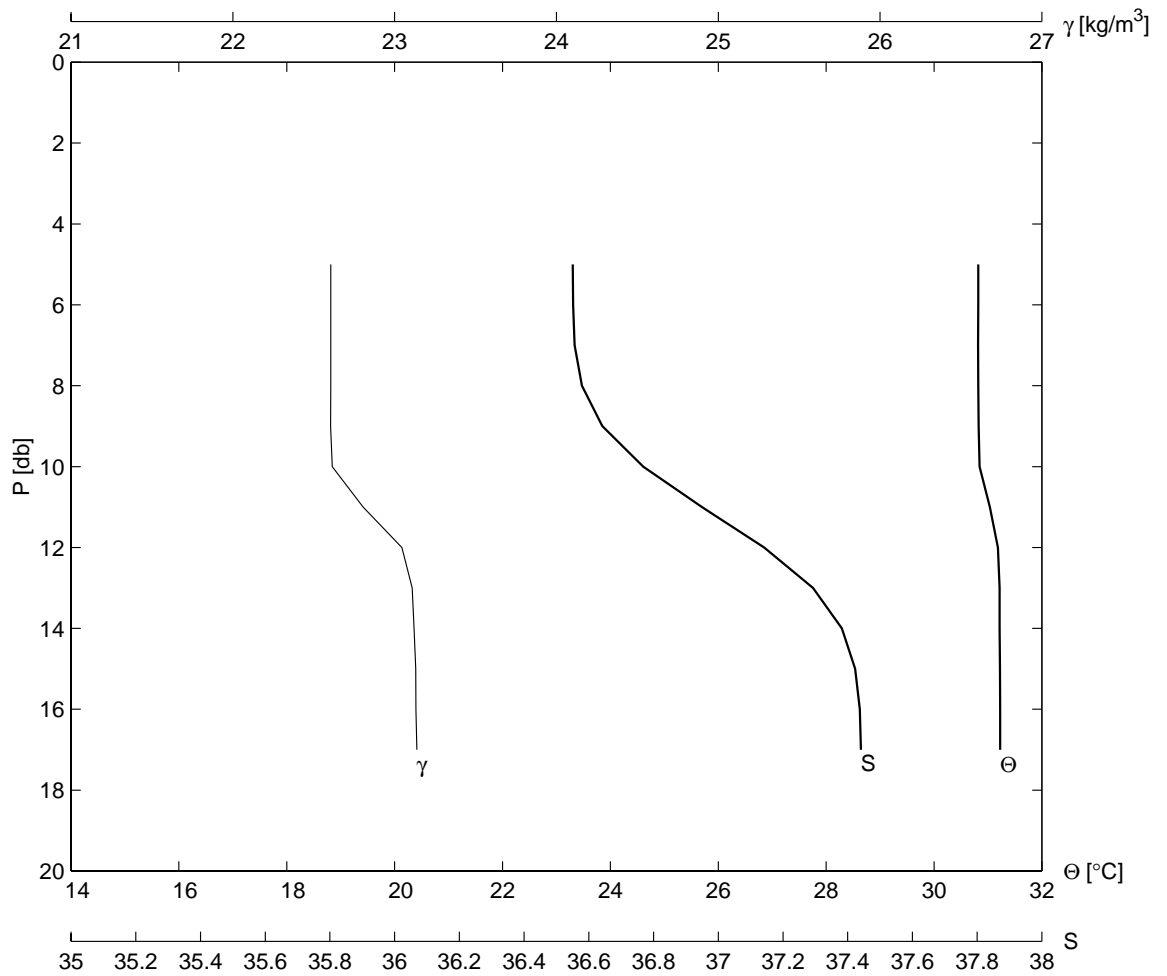
ESTACION	LANCE	LATITUD	LONGITUD	DD	MM	AA	H[UT]		
D05	23	31 20.0	114 39.0	9	8	2000	1329		
PROFTOT	TEMSUP	SALSUP	TEBUHU	TEBUSE	V-MAG	DIR	NUBES	BAROM	
[m]	[°C]	[ups]	[°C]	[°C]	[m/s]	[AZM]	[1/8]	[bar]	
22.0	31.1	36.60	28.2	31.2	0.0	999	9	1004.0	
PR	Θ	SA	γ	OX	PR	Θ	SA	γ	OX
[db]	[°C]		[kg/m <sup>3</sup> ]	[ml/l]	[db]	[°C]		[kg/m <sup>3</sup> ]	[ml/l]
6.0	30.726	36.620	22.690	99.900	10.0	30.744	36.633	22.694	99.900
7.0	30.726	36.620	22.690	99.900	15.0	30.809	36.687	22.711	99.900
8.0	30.725	36.619	22.690	99.900	20.0	30.956	37.020	22.910	99.900
9.0	30.735	36.627	22.692	99.900	21.0	30.969	37.081	22.951	99.900



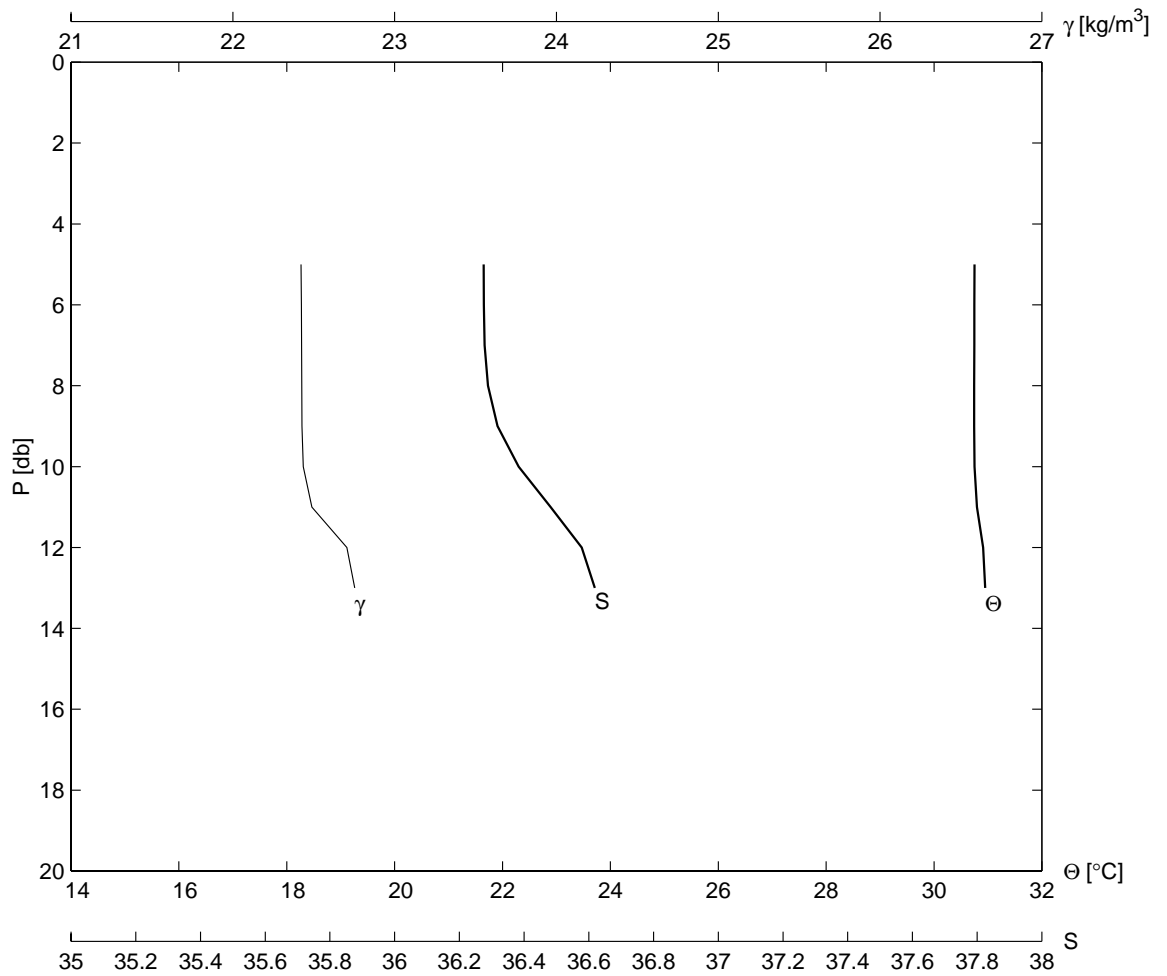
ESTACION	LANCE	LATITUD	LONGITUD	DD	MM	AA	H[UT]		
D04	24	31 17.9	114 42.0	9	8	2000	1400		
PROFTOT	TEMSUP	SALSUP	TEBUHU	TEBUSE	V-MAG	DIR	NUBES	BAROM	
[m]	[°C]	[ups]	[°C]	[°C]	[m/s]	[AZM]	[1/8]	[bar]	
16.2	31.2	36.86	28.8	31.5	0.2	265	9	100.0	
PR	Θ	SA	γ	OX	PR	Θ	SA	γ	OX
[db]	[°C]		[kg/m <sup>3</sup> ]	[ml/l]	[db]	[°C]		[kg/m <sup>3</sup> ]	[ml/l]
6.0	30.887	36.881	22.830	99.900	9.0	30.901	36.886	22.828	99.900
7.0	30.886	36.881	22.830	99.900	10.0	30.906	36.886	22.827	99.900
8.0	30.895	36.883	22.828	99.900	15.0	31.077	37.389	23.144	99.900
16.0	31.074	37.393	23.147	99.900					



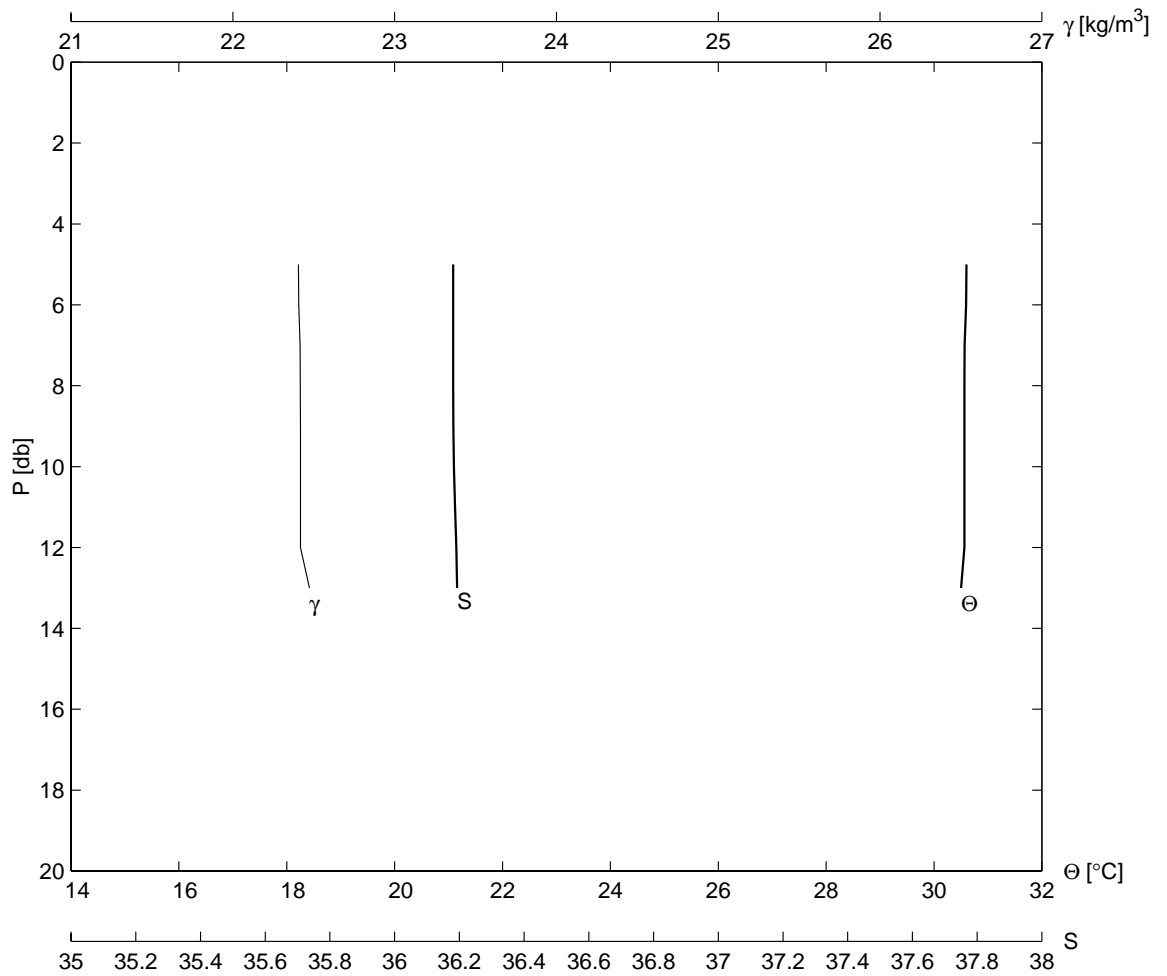
ESTACION	LANCE	LATITUD	LONGITUD	DD	MM	AA	H[UT]		
D03	25	31 17.0	114 45.0	9	8	2000	1429		
PROFTOT	TEMSUP	SALSUP	TEBUHU	TEBUSE	V-MAG	DIR	NUBES	BAROM	
[m]	[°C]	[ups]	[°C]	[°C]	[m/s]	[AZM]	[1/8]	[bar]	
17.3	31.2	36.53	30.0	32.8	1.7	248	9	1004.0	
PR	Θ	SA	γ	OX	PR	Θ	SA	γ	OX
[db]	[°C]		[kg/m <sup>3</sup> ]	[ml/l]	[db]	[°C]		[kg/m <sup>3</sup> ]	[ml/l]
5.0	30.821	36.550	22.605	99.900	9.0	30.829	36.553	22.604	99.900
6.0	30.820	36.550	22.605	99.900	10.0	30.845	36.575	22.615	99.900
7.0	30.819	36.550	22.606	99.900	15.0	31.224	37.440	23.130	99.900
8.0	30.821	36.552	22.606	99.900	17.0	31.227	37.450	23.137	99.900



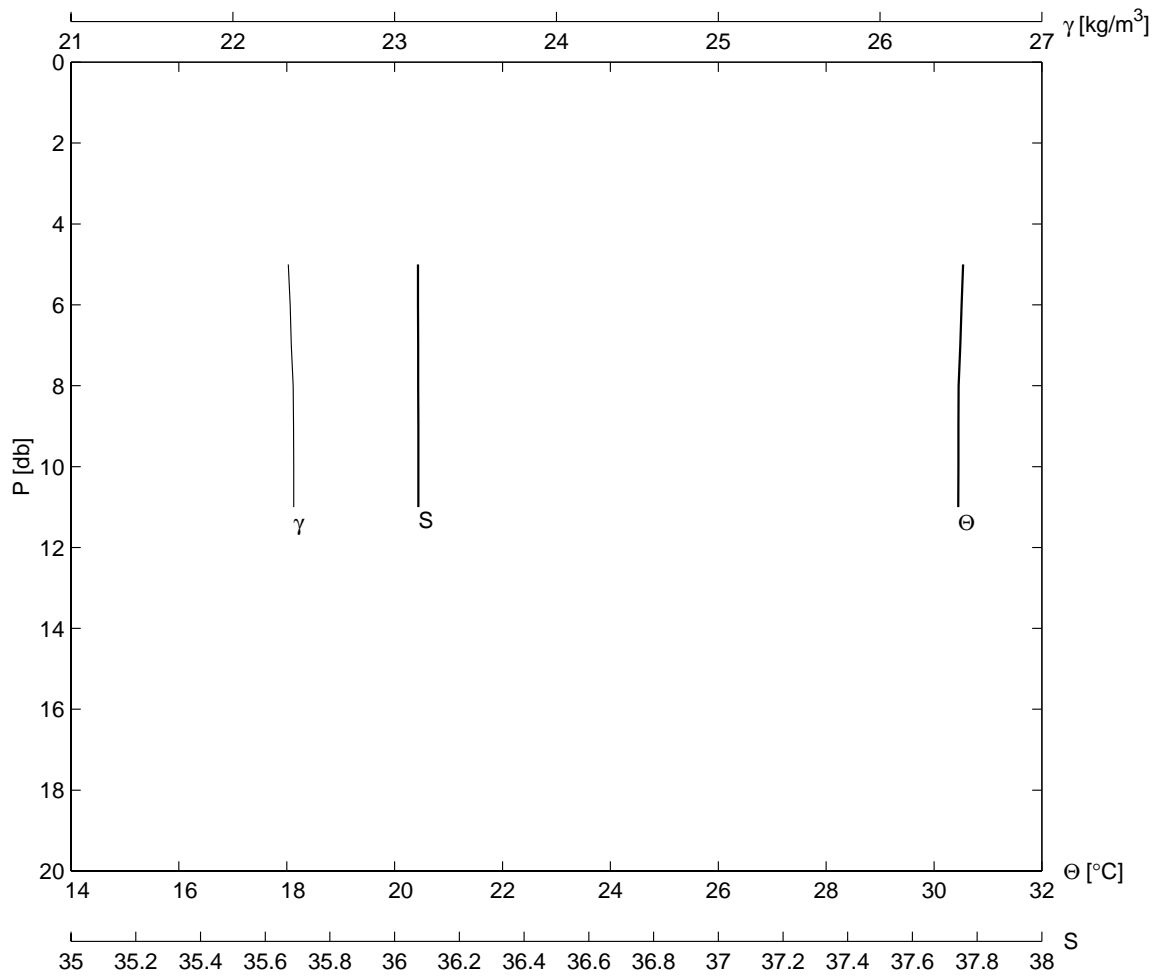
ESTACION	LANCE	LATITUD	LONGITUD	DD	MM	AA	H[UT]		
D02	26	31 16.1	114 47.1	9	8	2000	1452		
PROFTOT	TEMSUP	SALSUP	TEBUHU	TEBUSE	V-MAG	DIR	NUBES	BAROM	
[m]	[°C]	[ups]	[°C]	[°C]	[m/s]	[AZM]	[1/8]	[bar]	
14.0	31.1	36.26	28.2	31.2	1.6	244	9	1005.0	
PR	Θ	SA	γ	OX	PR	Θ	SA	γ	OX
[db]	[°C]		[kg/m <sup>3</sup> ]	[ml/l]	[db]	[°C]		[kg/m <sup>3</sup> ]	[ml/l]
5.0	30.751	36.274	22.422	99.900	8.0	30.745	36.277	22.426	99.900
6.0	30.748	36.275	22.424	99.900	9.0	30.745	36.279	22.427	99.900
7.0	30.747	36.276	22.425	99.900	10.0	30.751	36.292	22.436	99.900
13.0	30.949	36.809	22.754	99.900					



ESTACION	LANCE	LATITUD	LONGITUD	DD	MM	AA	H[UT]		
D01	27	31 15.1	114 49.0	9	8	2000	1519		
PROFTOT	TEMSUP	SALSUP	TEBUHU	TEBUSE	V-MAG	DIR	NUBES	BAROM	
[m]	[°C]	[ups]	[°C]	[°C]	[m/s]	[AZM]	[1/8]	[bar]	
13.0	31.0	36.26	28.0	31.0	1.7	260	9	1005.0	
PR	Θ	SA	γ	OX	PR	Θ	SA	γ	OX
[db]	[°C]		[kg/m <sup>3</sup> ]	[ml/l]	[db]	[°C]		[kg/m <sup>3</sup> ]	[ml/l]
5.0	30.601	36.182	22.405	99.900	8.0	30.565	36.181	22.417	99.900
6.0	30.594	36.181	22.407	99.900	9.0	30.564	36.181	22.417	99.900
7.0	30.566	36.180	22.416	99.900	10.0	30.563	36.181	22.418	99.900
13.0	30.502	36.227	22.473	99.900					

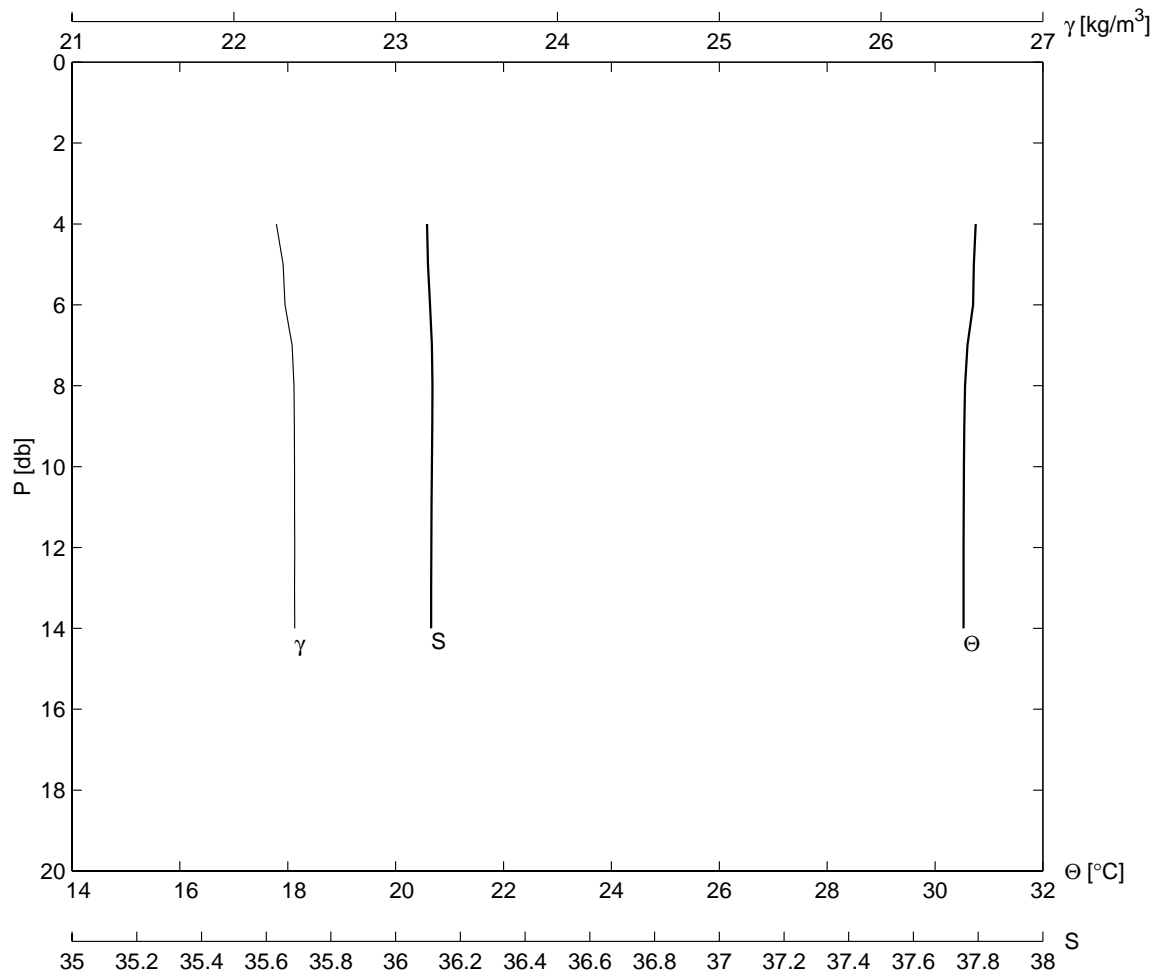


ESTACION	LANCE	LATITUD		LONGITUD		DD	MM	AA	H[UT]
E01	28	31	9.1	114	50.9	9	8	2000	1619
PROFTOT	TEMSUP	SALSUP	TEBUHU	TEBUSE	V-MAG	DIR	NUBES	BAROM	
[m]	[°C]	[ups]	[°C]	[°C]	[m/s]	[AZM]	[1/8]	[bar]	
11.8	30.9	31.50	29.0	31.5	0.9	63	9	1005.0	
PR	$\Theta$	SA	$\gamma$	OX	PR	$\Theta$	SA	$\gamma$	OX
[db]	[°C]		[kg/m <sup>3</sup> ]	[ml/l]	[db]	[°C]		[kg/m <sup>3</sup> ]	[ml/l]
5.0	30.541	36.071	22.343	99.900	8.0	30.457	36.073	22.373	99.900
6.0	30.513	36.073	22.354	99.900	9.0	30.452	36.073	22.375	99.900
7.0	30.488	36.072	22.362	99.900	10.0	30.451	36.074	22.376	99.900
11.0	30.450	36.074	22.376	99.900					

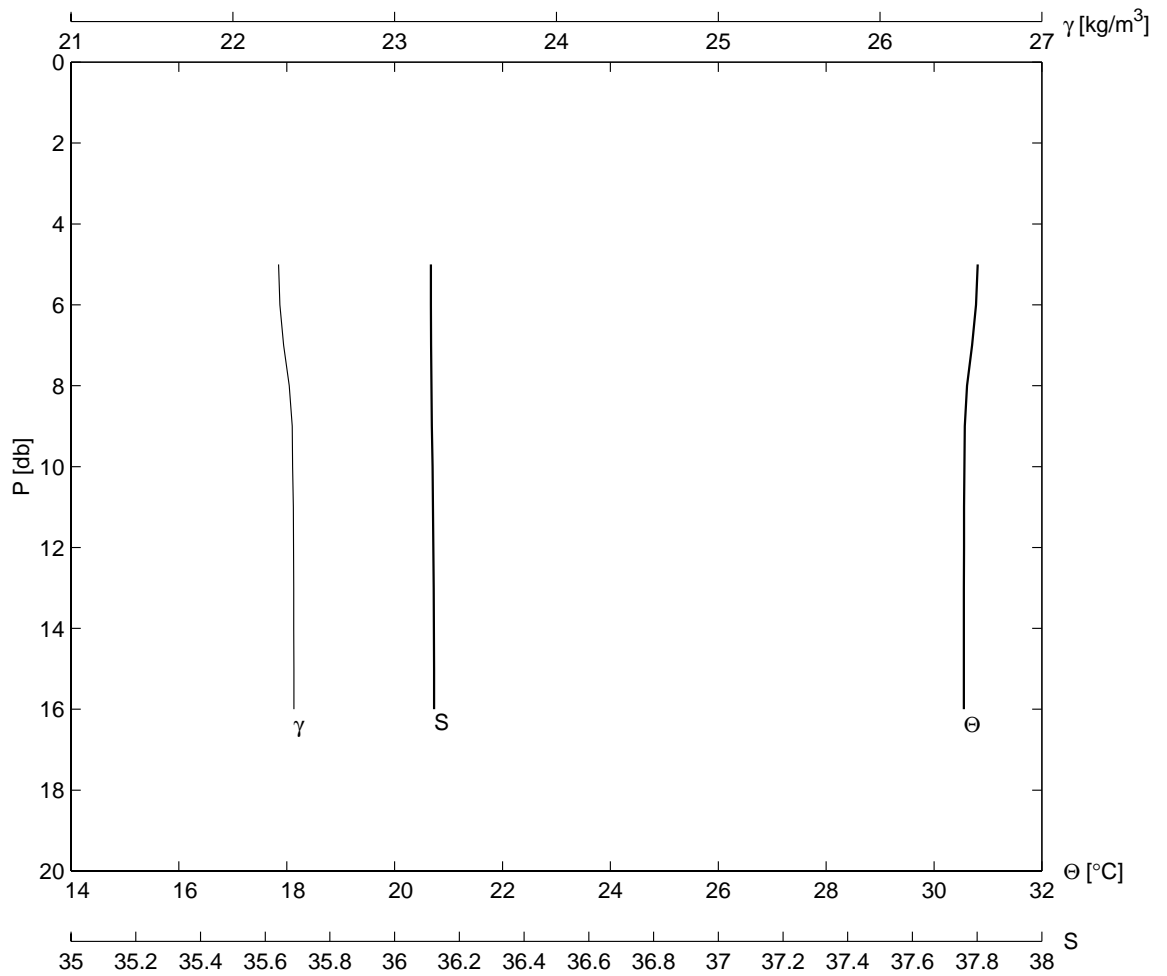




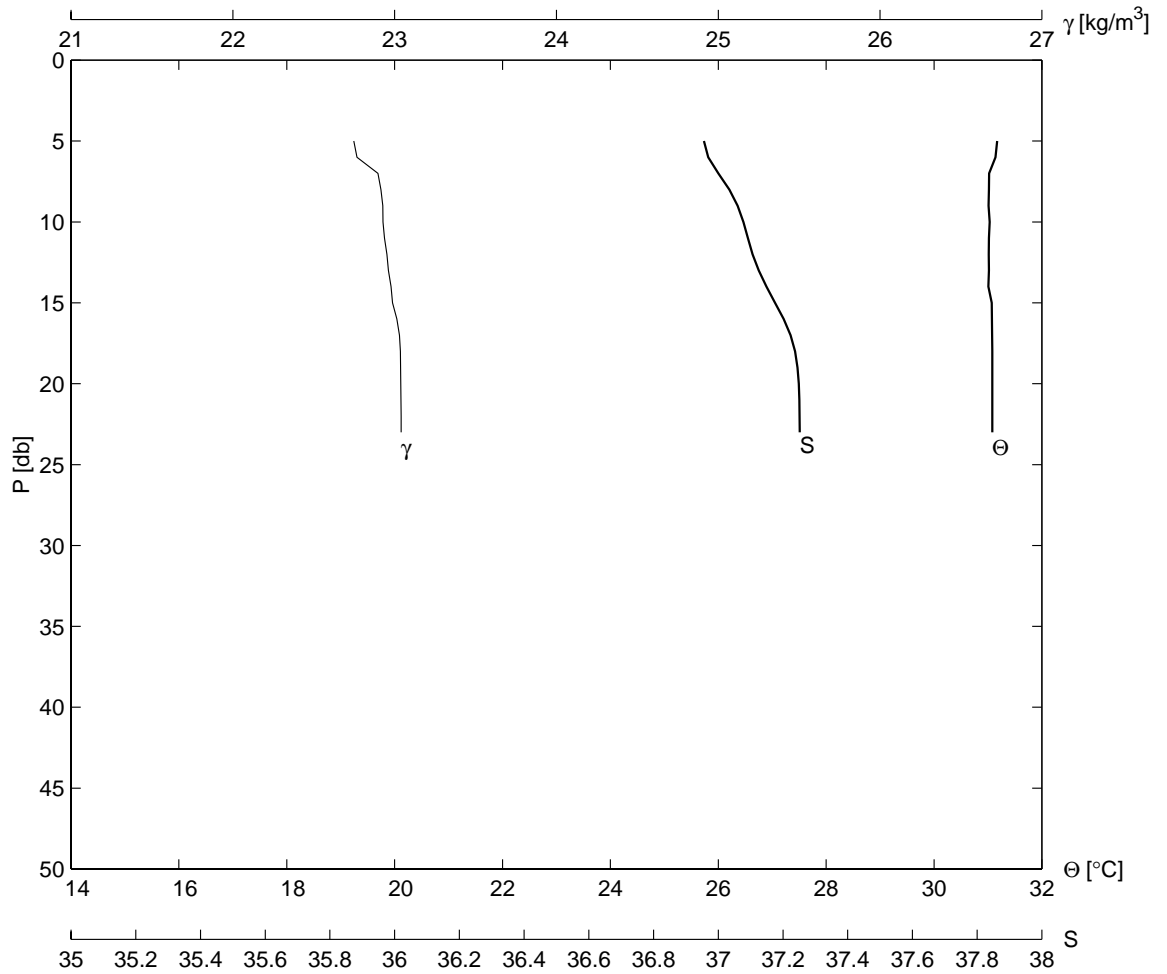
ESTACION E1A	LANCE 29	LATITUD 31 10.1	LONGITUD 114 49.2	DD MM 9 8	AA 2000	H[UT] 1643			
PROFTOT [m]	TEMSUP [°C]	SALSUP [ups]	TEBUHU [°C]	TEBUSE [°C]	V-MAG [m/s]	DIR [AZM]	NUBES [1/8]	BAROM [bar]	
15.0	31.0	36.08	29.0	32.0	1.6	344	9	1005.0	
PR [db]	Θ [°C]	SA	γ [kg/m³]	OX [ml/l]	PR [db]	Θ [°C]	SA	γ [kg/m³]	OX [ml/l]
4.0	30.754	36.062	22.262	99.900	8.0	30.557	36.116	22.371	99.900
5.0	30.721	36.103	22.305	99.900	9.0	30.542	36.112	22.374	99.900
6.0	30.704	36.111	22.317	99.900	10.0	30.535	36.111	22.375	99.900
7.0	30.602	36.122	22.360	99.900	14.0	30.529	36.109	22.376	99.900



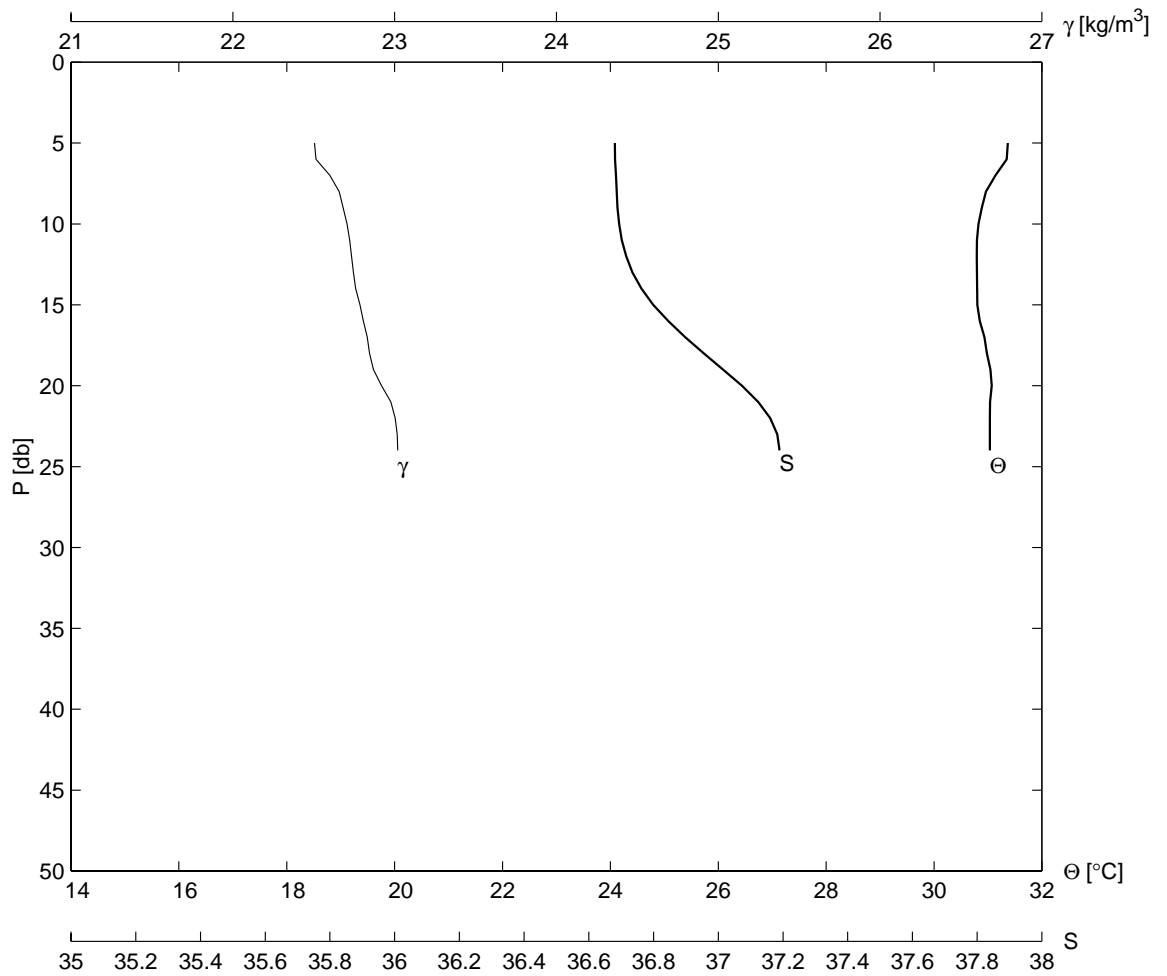
ESTACION	LANCE	LATITUD	LONGITUD	DD	MM	AA	H[UT]		
E02	30	31 11.2	114 47.5	9	8	2000	1708		
PROFTOT	TEMSUP	SALSUP	TEBUHU	TEBUSE	V-MAG	DIR	NUBES	BAROM	
[m]	[°C]	[ups]	[°C]	[°C]	[m/s]	[AZM]	[1/8]	[bar]	
17.0	31.1	36.09	29.0	32.0	0.5	130	9	1006.0	
PR	Θ	SA	γ	OX	PR	Θ	SA	γ	OX
[db]	[°C]		[kg/m <sup>3</sup> ]	[ml/l]	[db]	[°C]		[kg/m <sup>3</sup> ]	[ml/l]
5.0	30.808	36.115	22.283	99.900	9.0	30.569	36.117	22.367	99.900
6.0	30.779	36.111	22.291	99.900	10.0	30.564	36.117	22.370	99.900
7.0	30.707	36.110	22.314	99.900	15.0	30.553	36.122	22.377	99.900
8.0	30.612	36.111	22.349	99.900	16.0	30.552	36.122	22.377	99.900



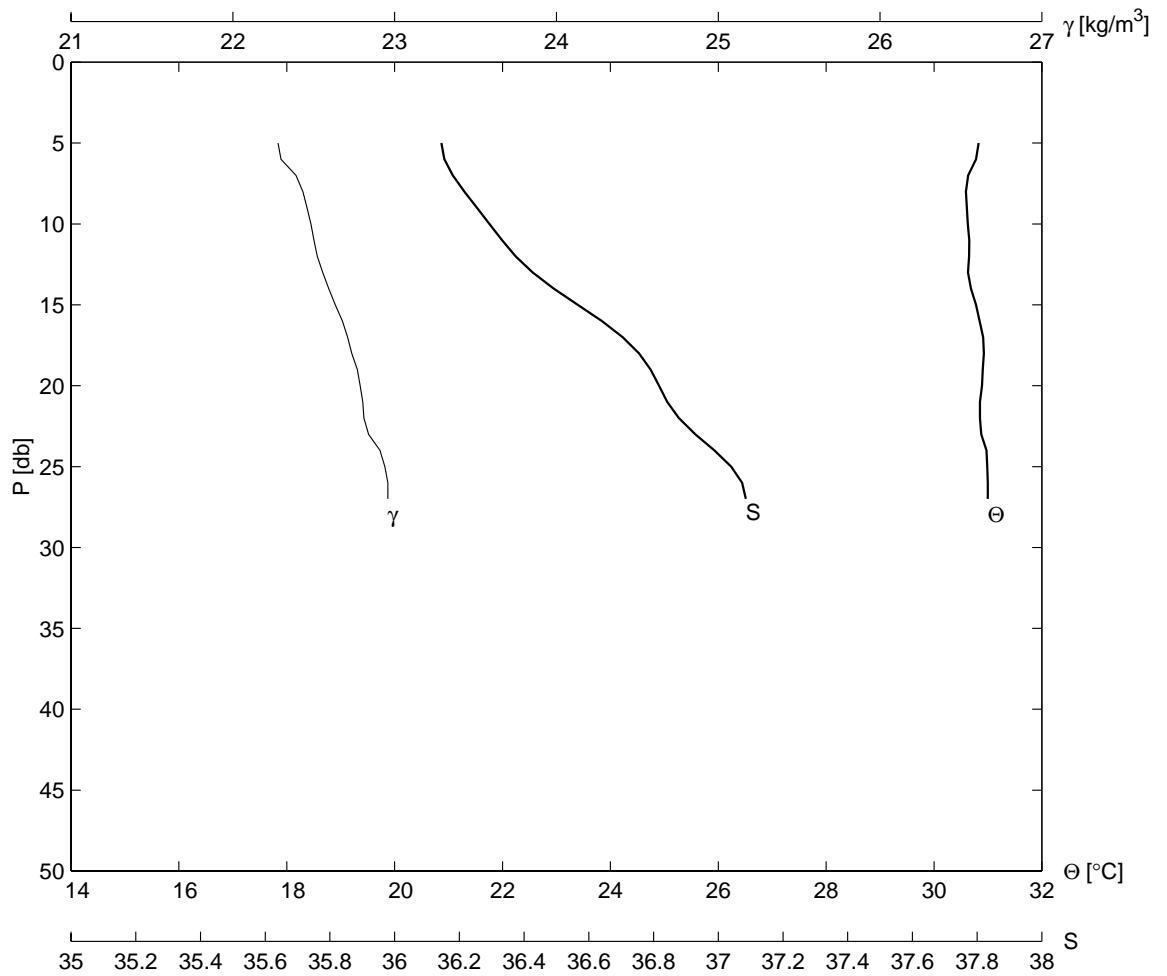
ESTACION	LANCE	LATITUD	LONGITUD	DD	MM	AA	H[UT]		
E04	31	31 13.8	114 42.2	9	8	2000	1803		
PROFTOT	TEMSUP	SALSUP	TEBUHU	TEBUSE	V-MAG	DIR	NUBES	BAROM	
[m]	[°C]	[ups]	[°C]	[°C]	[m/s]	[AZM]	[1/8]	[bar]	
23.1	31.5	36.89	29.0	32.0	1.5	48	9	974.0	
PR	Θ	SA	γ	OX	PR	Θ	SA	γ	OX
[db]	[°C]		[kg/m <sup>3</sup> ]	[ml/l]	[db]	[°C]		[kg/m <sup>3</sup> ]	[ml/l]
5.0	31.169	36.904	22.747	99.900	9.0	31.012	37.069	22.926	99.900
6.0	31.139	36.916	22.767	99.900	10.0	31.033	37.080	22.927	99.900
7.0	31.021	37.032	22.896	99.900	15.0	31.070	37.176	22.986	99.900
8.0	31.019	37.057	22.915	99.900	20.0	31.081	37.250	23.038	99.900
23.0	31.082	37.252	23.040	99.900					



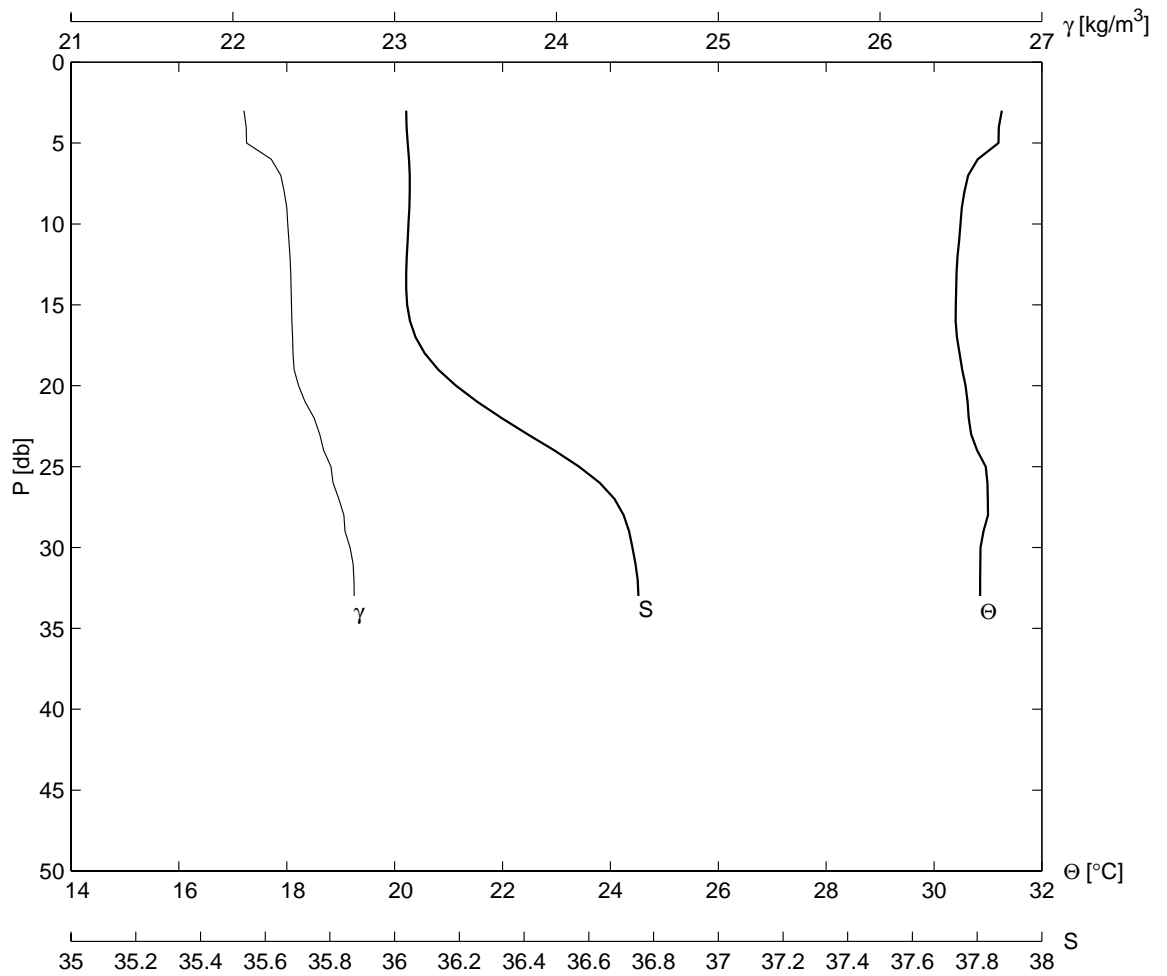
ESTACION	LANCE	LATITUD	LONGITUD	DD	MM	AA	H[UT]		
E05	32	31 15.0	114 39.9	9	8	2000	1833		
PROFTOT	TEMSUP	SALSUP	TEBUHU	TEBUSE	V-MAG	DIR	NUBES	BAROM	
[m]	[°C]	[ups]	[°C]	[°C]	[m/s]	[AZM]	[1/8]	[bar]	
24.6	31.6	36.69	29.0	32.0	1.4	10	9	986.0	
PR	Θ	SA	γ	OX	PR	Θ	SA	γ	OX
[db]	[°C]		[kg/m <sup>3</sup> ]	[ml/l]	[db]	[°C]		[kg/m <sup>3</sup> ]	[ml/l]
5.0	31.370	36.674	22.504	99.900	9.0	30.888	36.683	22.681	99.900
6.0	31.348	36.676	22.514	99.900	10.0	30.825	36.687	22.706	99.900
7.0	31.141	36.692	22.599	99.900	15.0	30.804	36.783	22.786	99.900
8.0	30.964	36.688	22.658	99.900	20.0	31.070	37.085	22.919	99.900
24.0	31.035	37.204	23.020	99.900					



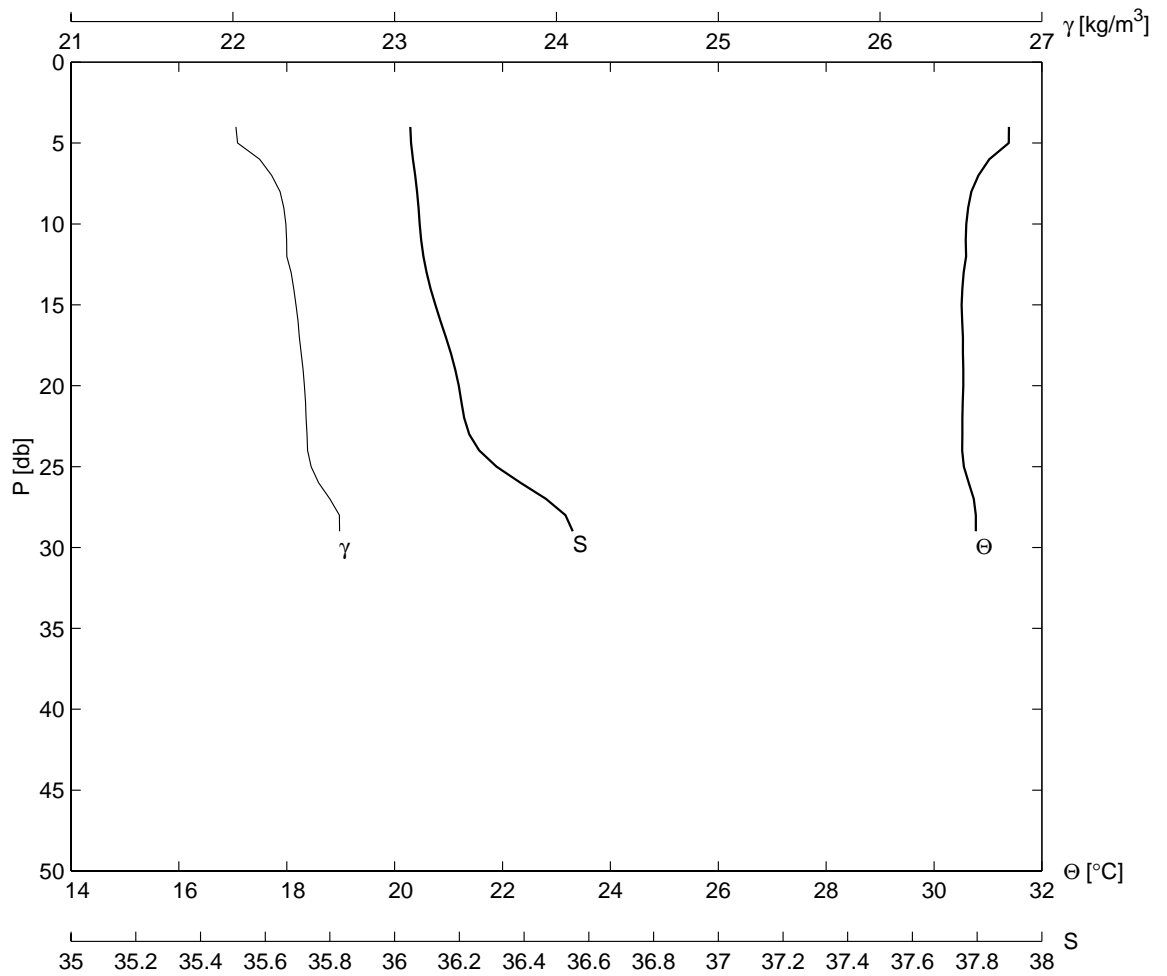
ESTACION	LANCE	LATITUD	LONGITUD	DD	MM	AA	H[UT]		
E06	33	31 16.2	114 37.5	9	8	2000	1902		
PROFTOT	TEMSUP	SALSUP	TEBUHU	TEBUSE	V-MAG	DIR	NUBES	BAROM	
[m]	[°C]	[ups]	[°C]	[°C]	[m/s]	[AZM]	[1/8]	[bar]	
27.5	31.3	36.08	29.0	32.0	1.2	234	9	1005.0	
PR	Θ	SA	γ	OX	PR	Θ	SA	γ	OX
[db]	[°C]		[kg/m <sup>3</sup> ]	[ml/l]	[db]	[°C]		[kg/m <sup>3</sup> ]	[ml/l]
5.0	30.826	36.118	22.279	99.900	10.0	30.627	36.297	22.483	99.900
6.0	30.780	36.121	22.297	99.900	15.0	30.779	36.568	22.633	99.900
7.0	30.633	36.176	22.390	99.900	20.0	30.888	36.824	22.787	99.900
8.0	30.590	36.214	22.433	99.900	25.0	30.987	37.074	22.939	99.900
9.0	30.607	36.256	22.459	99.900	27.0	30.997	37.104	22.958	99.900



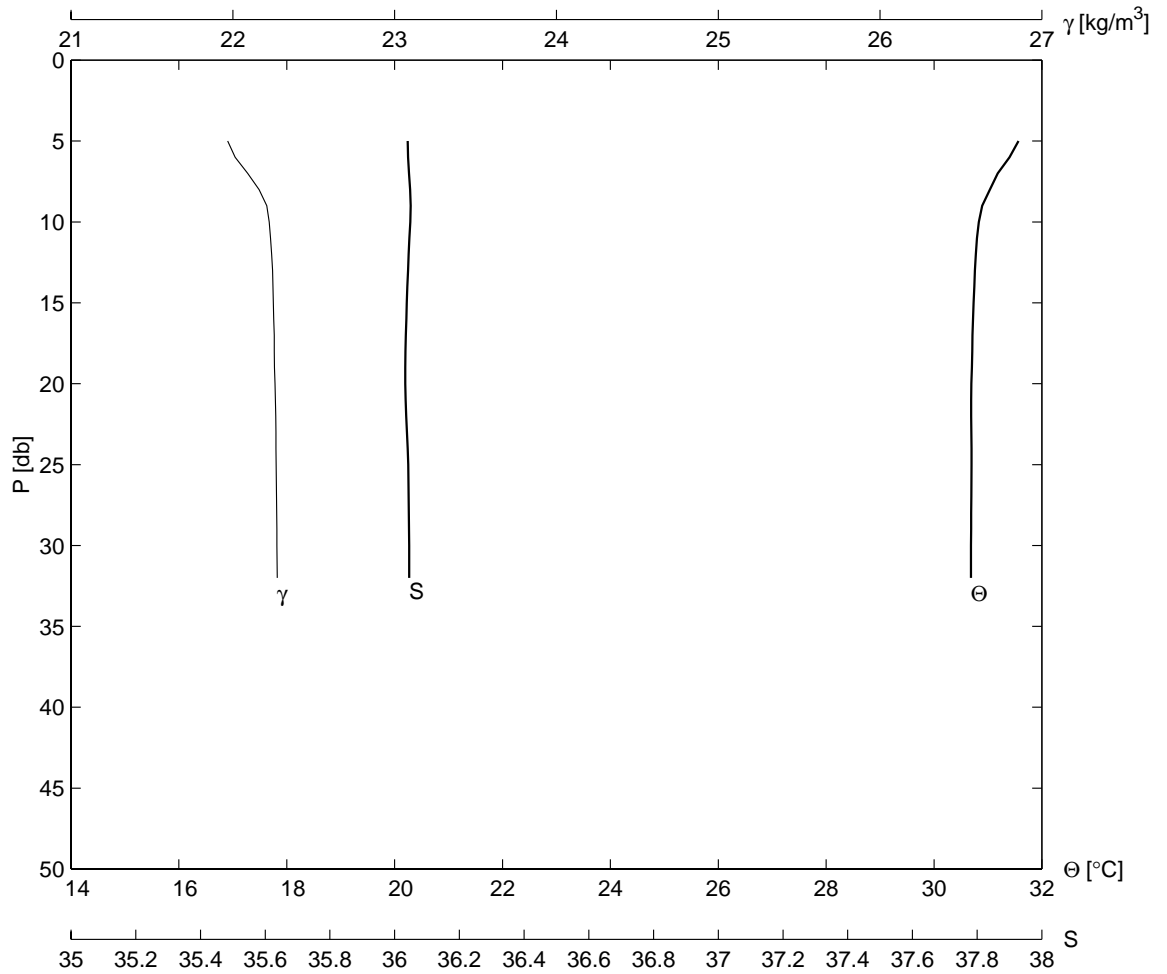
ESTACION	LANCE	LATITUD	LONGITUD	DD	MM	AA	H[UT]		
E07	34	31 17.4	114 34.8	9	8	2000	1936		
PROFTOT	TEMSUP	SALSUP	TEBUHU	TEBUSE	V-MAG	DIR	NUBES	BAROM	
[m]	[°C]	[ups]	[°C]	[°C]	[m/s]	[AZM]	[1/8]	[bar]	
34.0	31.2	36.03	28.0	33.3	1.9	53	9	979.0	
PR	Θ	SA	γ	OX	PR	Θ	SA	γ	OX
[db]	[°C]		[kg/m <sup>3</sup> ]	[ml/l]	[db]	[°C]		[kg/m <sup>3</sup> ]	[ml/l]
3.0	31.258	36.039	22.069	99.900	9.0	30.515	36.046	22.333	99.900
4.0	31.203	36.031	22.082	99.900	10.0	30.489	36.043	22.340	99.900
5.0	31.197	36.031	22.084	99.900	15.0	30.403	36.033	22.362	99.900
6.0	30.811	36.056	22.238	99.900	20.0	30.583	36.175	22.406	99.900
7.0	30.634	36.051	22.296	99.900	25.0	30.961	36.617	22.606	99.900
8.0	30.563	36.047	22.317	99.900	30.0	30.864	36.729	22.724	99.900
33.0	30.854	36.759	22.750	99.900					



ESTACION E08	LANCE 35	LATITUD 31 18.8	LONGITUD 114 32.3	DD MM 9 8	AA 2000	H[UT] 2004			
PROFTOT [m] 29.1	TEMSUP [°C] 31.6	SALSUP [ups] 36.03	TEBUHU [°C] 27.7	TEBUSE [°C] 32.5	V-MAG [m/s] 1.6	DIR [AZM] 69	NUBES [1/8] 9	BAROM [bar] 1002.0	
PR [db] 4.0 5.0 6.0 7.0 8.0 29.0	Θ [°C] 31.390 31.387 31.025 30.823 30.693 30.774	SA 36.034 36.047 36.059 36.065 36.073 36.601	γ [kg/m³] 22.019 22.029 22.165 22.240 22.291 22.659	OX [ml/l] 99.900 99.900 99.900 99.900 99.900 99.900	PR [db] 9.0 10.0 15.0 20.0 25.0	Θ [°C] 30.633 30.597 30.512 30.541 30.554	SA 36.077 36.076 36.121 36.204 36.265	γ [kg/m³] 22.315 22.327 22.390 22.442 22.484	OX [ml/l] 99.900 99.900 99.900 99.900 99.900

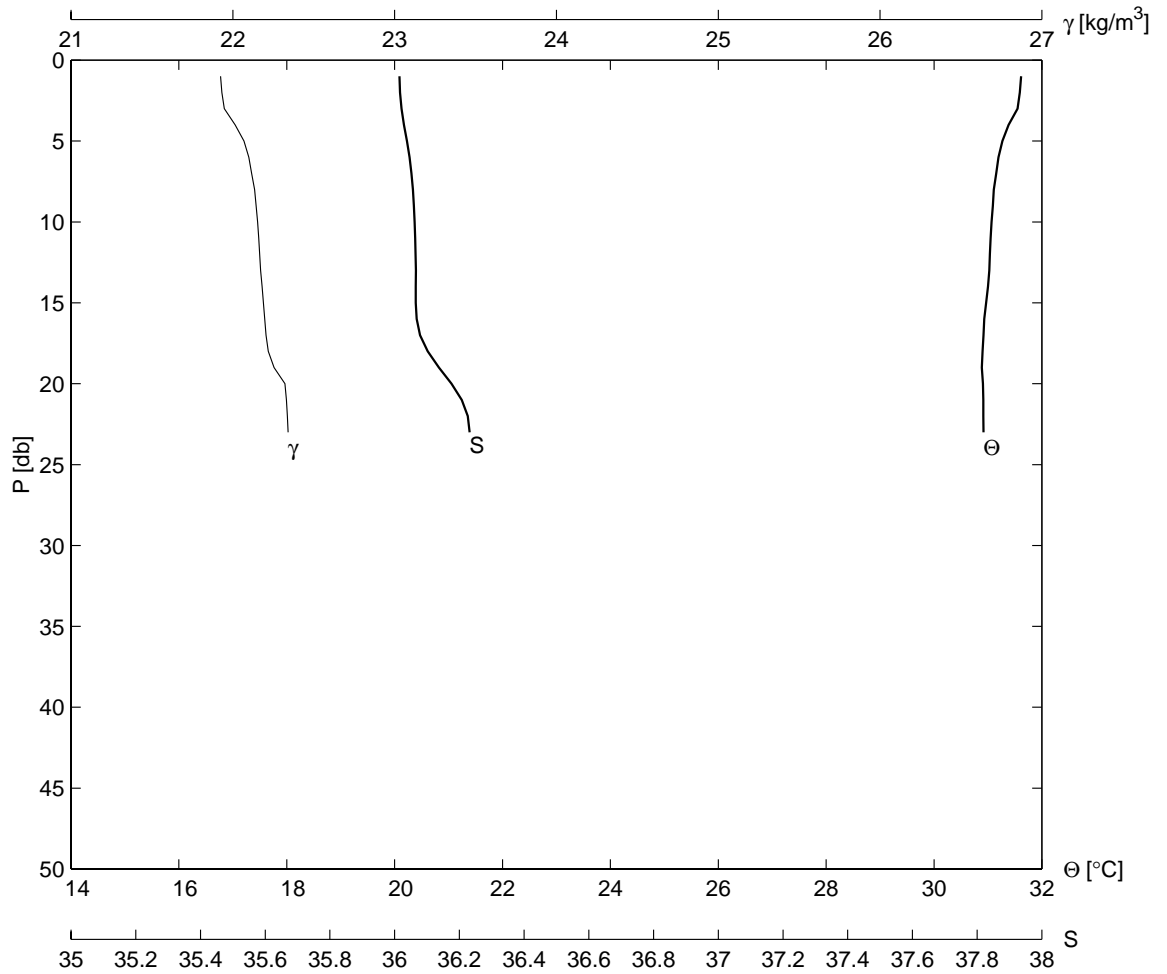


ESTACION	LANCE	LATITUD	LONGITUD	DD	MM	AA	H[UT]		
E09	36	31 21.0	114 27.0	9	8	2000	2055		
PROFTOT	TEMSUP	SALSUP	TEBUHU	TEBUSE	V-MAG	DIR	NUBES	BAROM	
[m]	[°C]	[ups]	[°C]	[°C]	[m/s]	[AZM]	[1/8]	[bar]	
33.0	31.7	36.00	27.5	31.7	51.4	999	9	99.9	
PR	$\Theta$	SA	$\gamma$	OX	PR	$\Theta$	SA	$\gamma$	OX
[db]	[°C]		[kg/m <sup>3</sup> ]	[ml/l]	[db]	[°C]		[kg/m <sup>3</sup> ]	[ml/l]
5.0	31.566	36.050	21.968	99.900	10.0	30.831	36.048	22.225	99.900
6.0	31.399	36.033	22.015	99.900	15.0	30.734	36.037	22.251	99.900
7.0	31.180	36.034	22.092	99.900	20.0	30.693	36.031	22.261	99.900
8.0	31.037	36.061	22.163	99.900	25.0	30.697	36.043	22.268	99.900
9.0	30.893	36.057	22.209	99.900	30.0	30.686	36.045	22.273	99.900
32.0	30.683	36.046	22.275	99.900					

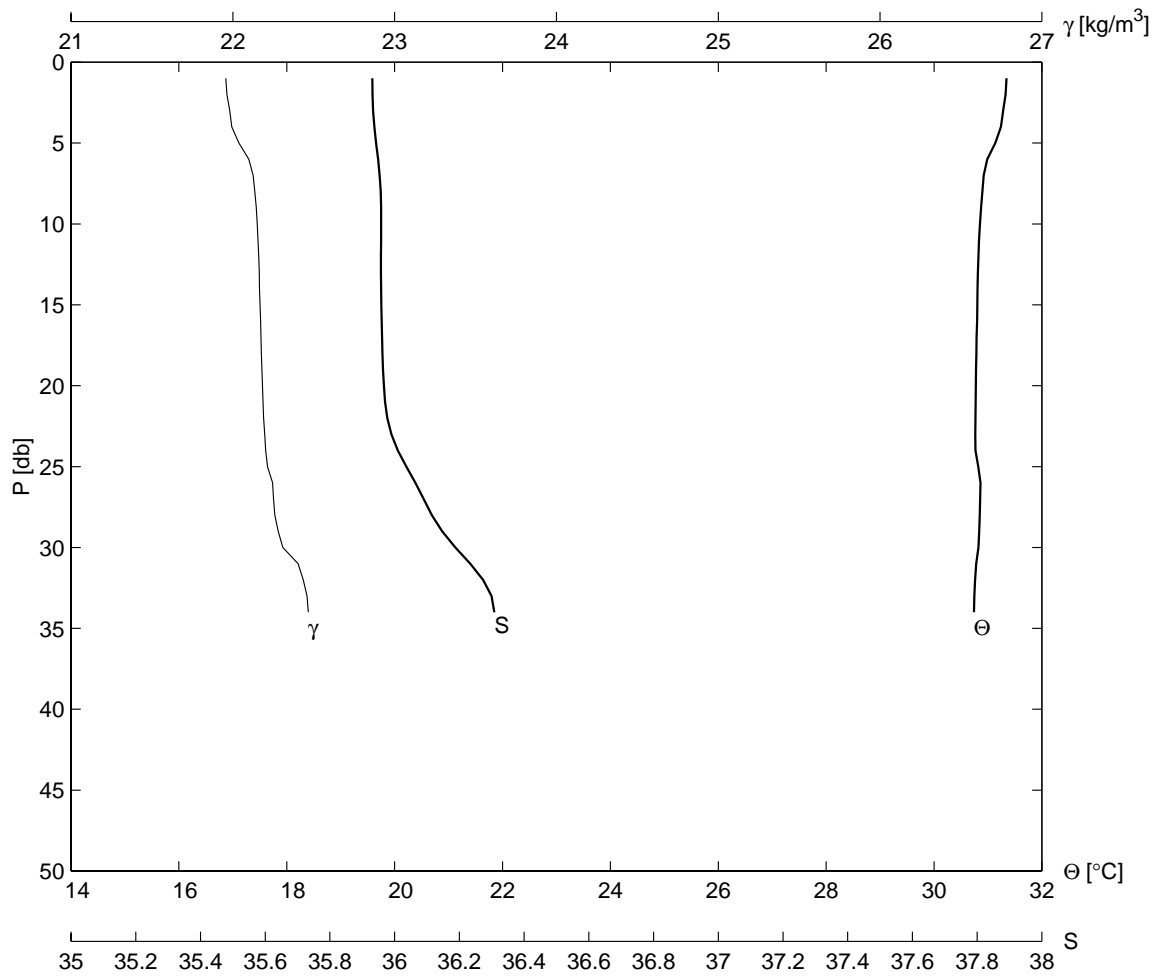




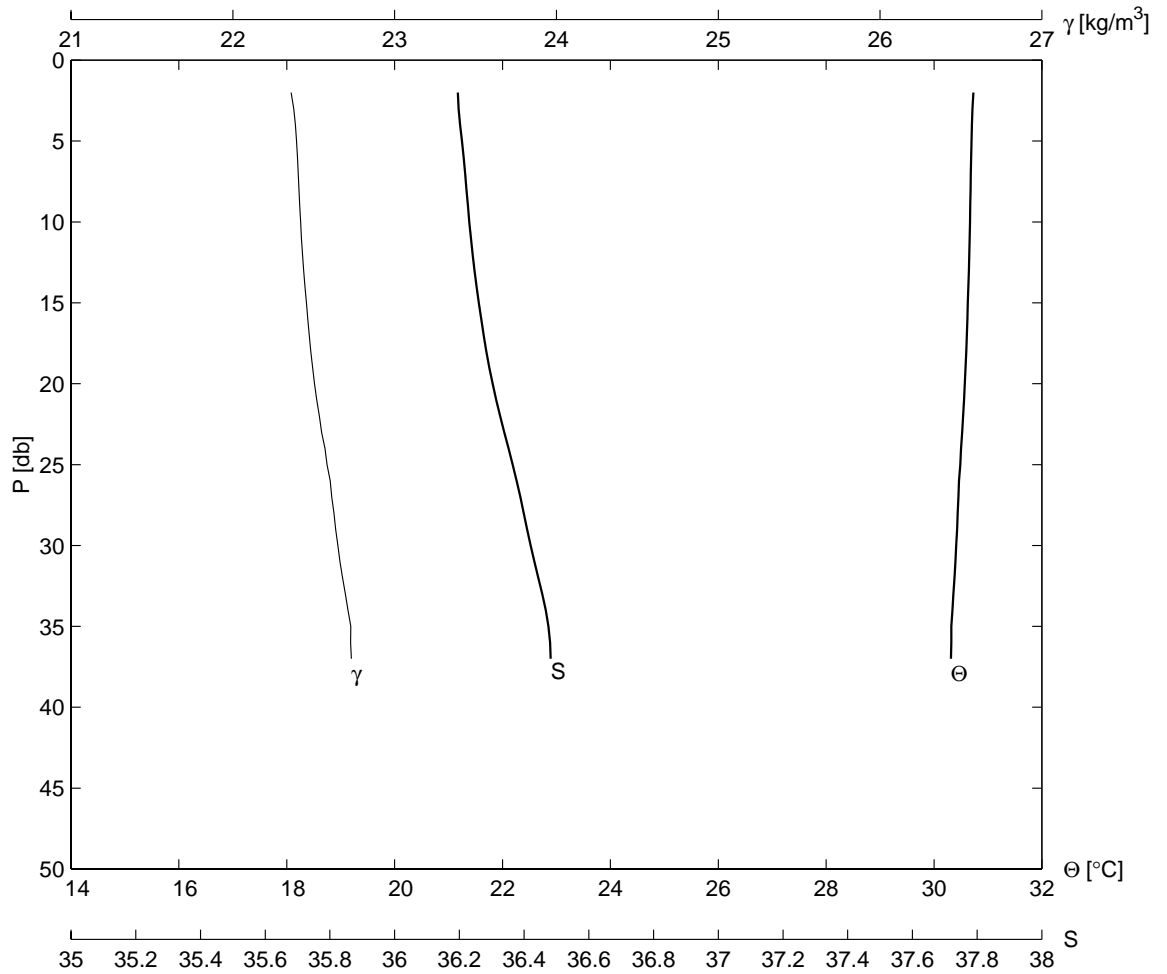
ESTACION	LANCE	LATITUD	LONGITUD	DD	MM	AA	H[UT]		
E10	37	31 23.1	114 21.8	9	8	2000	2145		
PROFTOT	TEMSUP	SALSUP	TEBUHU	TEBUSE	V-MAG	DIR	NUBES	BAROM	
[m]	[°C]	[ups]	[°C]	[°C]	[m/s]	[AZM]	[1/8]	[bar]	
24.3	31.8	35.91	99.9	99.9	51.4	999	9	99.9	
PR	Θ	SA	γ	OX	PR	Θ	SA	γ	OX
[db]	[°C]		[kg/m <sup>3</sup> ]	[ml/l]	[db]	[°C]		[kg/m <sup>3</sup> ]	[ml/l]
2.0	31.590	36.013	21.932	99.900	8.0	31.108	36.057	22.135	99.900
3.0	31.548	36.013	21.947	99.900	9.0	31.090	36.061	22.144	99.900
4.0	31.382	36.025	22.014	99.900	10.0	31.067	36.062	22.153	99.900
5.0	31.269	36.044	22.069	99.900	15.0	30.967	36.064	22.189	99.900
6.0	31.195	36.049	22.099	99.900	20.0	30.907	36.213	22.322	99.900
7.0	31.155	36.054	22.116	99.900	23.0	30.918	36.244	22.341	99.900



ESTACION	LANCE	LATITUD	LONGITUD	DD	MM	AA	H[UT]		
E11	38	31 26.1	114 16.9	9	8	2000	2236		
PROFTOT	TEMSUP	SALSUP	TEBUHU	TEBUSE	V-MAG	DIR	NUBES	BAROM	
[m]	[°C]	[ups]	[°C]	[°C]	[m/s]	[AZM]	[1/8]	[bar]	
34.6	31.7	35.91	27.0	32.0	51.4	999	9	99.9	
PR	Θ	SA	γ	OX	PR	Θ	SA	γ	OX
[db]	[°C]		[kg/m <sup>3</sup> ]	[ml/l]	[db]	[°C]		[kg/m <sup>3</sup> ]	[ml/l]
2.0	31.326	35.931	21.964	99.900	9.0	30.872	35.960	22.144	99.900
3.0	31.281	35.933	21.981	99.900	10.0	30.851	35.959	22.151	99.900
4.0	31.242	35.930	21.993	99.900	15.0	30.802	35.959	22.169	99.900
5.0	31.137	35.941	22.038	99.900	20.0	30.774	35.965	22.183	99.900
6.0	30.988	35.953	22.099	99.900	25.0	30.819	36.029	22.215	99.900
7.0	30.922	35.957	22.125	99.900	30.0	30.823	36.157	22.309	99.900
8.0	30.896	35.959	22.135	99.900	34.0	30.742	36.329	22.466	99.900

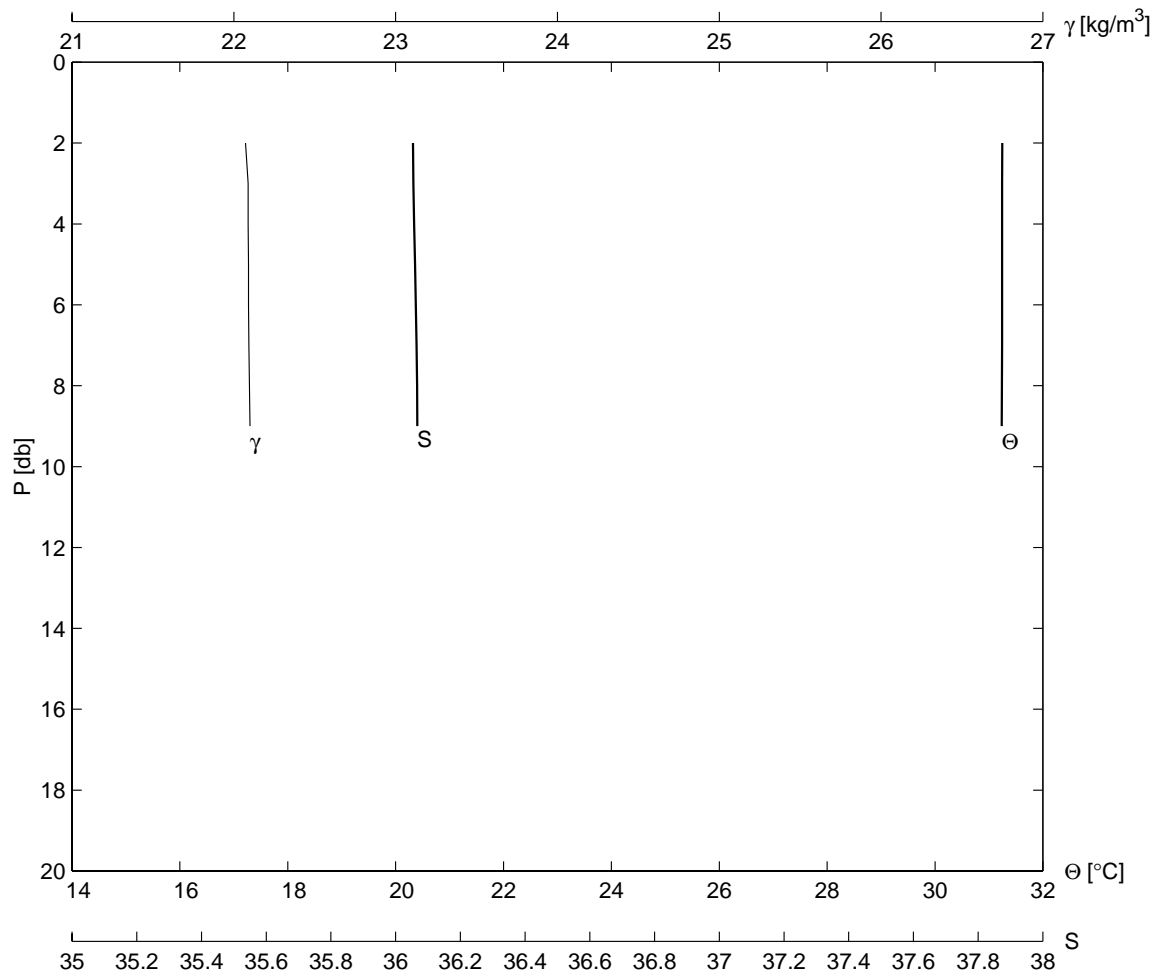


ESTACION	LANCE	LATITUD	LONGITUD	DD	MM	AA	H[UT]		
E12	39	31 27.9	114 11.8	9	8	2000	2322		
PROFTOT	TEMSUP	SALSUP	TEBUHU	TEBUSE	V-MAG	DIR	NUBES	BAROM	
[m]	[°C]	[ups]	[°C]	[°C]	[m/s]	[AZM]	[1/8]	[bar]	
38.0	31.6	35.87	28.0	37.5	51.4	999	9	99.9	
PR	Θ	SA	γ	OX	PR	Θ	SA	γ	OX
[db]	[°C]		[kg/m³]	[ml/l]	[db]	[°C]		[kg/m³]	[ml/l]
2.0	30.731	36.182	22.360	99.900	9.0	30.672	36.226	22.414	99.900
3.0	30.713	36.195	22.376	99.900	10.0	30.666	36.230	22.419	99.900
4.0	30.701	36.204	22.387	99.900	15.0	30.627	36.260	22.455	99.900
5.0	30.694	36.209	22.394	99.900	20.0	30.572	36.301	22.505	99.900
6.0	30.688	36.214	22.399	99.900	25.0	30.486	36.365	22.582	99.900
7.0	30.683	36.218	22.404	99.900	30.0	30.410	36.420	22.650	99.900
8.0	30.677	36.222	22.409	99.900	37.0	30.313	36.486	22.733	99.900



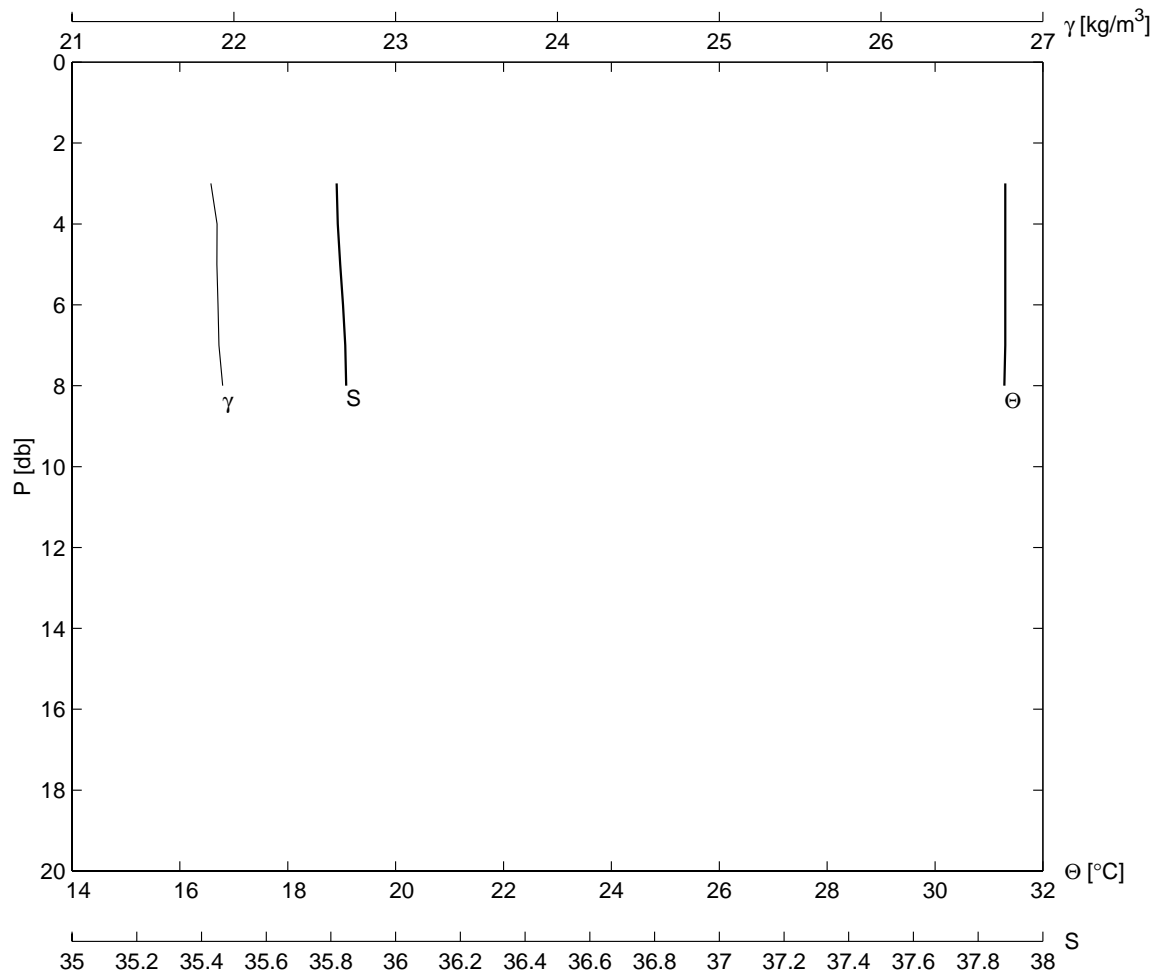
# A.40

ESTACION	LANCE	LATITUD	LONGITUD	DD	MM	AA	H[UT]		
E13	40	31 28.7	114 9.8	9	8	2000	2348		
PROFTOT	TEMSUP	SALSUP	TEBUHU	TEBUSE	V-MAG	DIR	NUBES	BAROM	
[m]	[°C]	[ups]	[°C]	[°C]	[m/s]	[AZM]	[1/8]	[bar]	
10.0	31.6	35.86	27.5	32.0	51.4	999	9	99.9	
PR	Θ	SA	γ	OX	PR	Θ	SA	γ	OX
[db]	[°C]		[kg/m <sup>3</sup> ]	[ml/l]	[db]	[°C]		[kg/m <sup>3</sup> ]	[ml/l]
2.0	31.248	36.039	22.072	99.900	6.0	31.243	36.062	22.091	99.900
3.0	31.242	36.058	22.088	99.900	7.0	31.243	36.064	22.093	99.900
4.0	31.243	36.059	22.089	99.900	8.0	31.241	36.068	22.096	99.900
5.0	31.243	36.060	22.090	99.900	9.0	31.238	36.071	22.099	99.900
9.0	31.238	36.071	22.099	99.900					

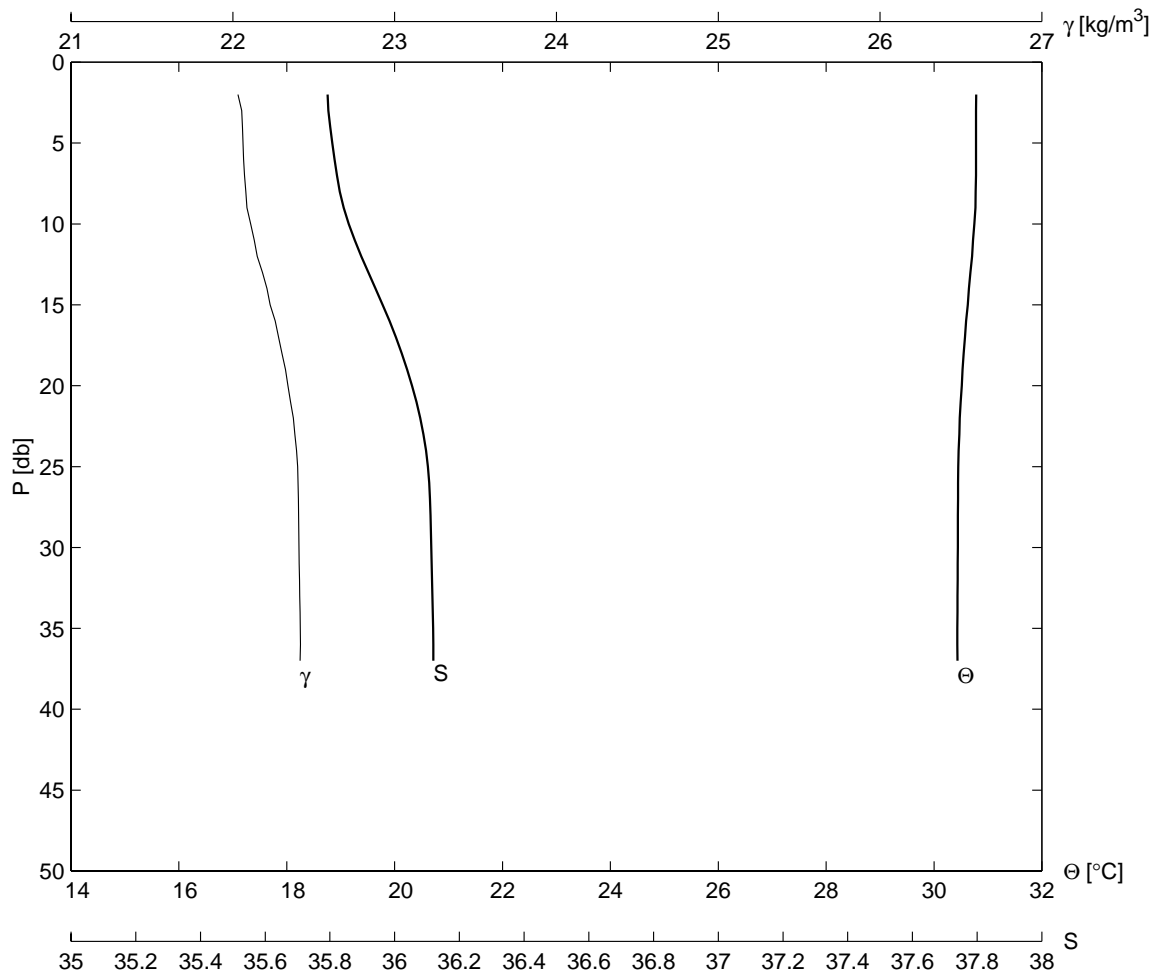


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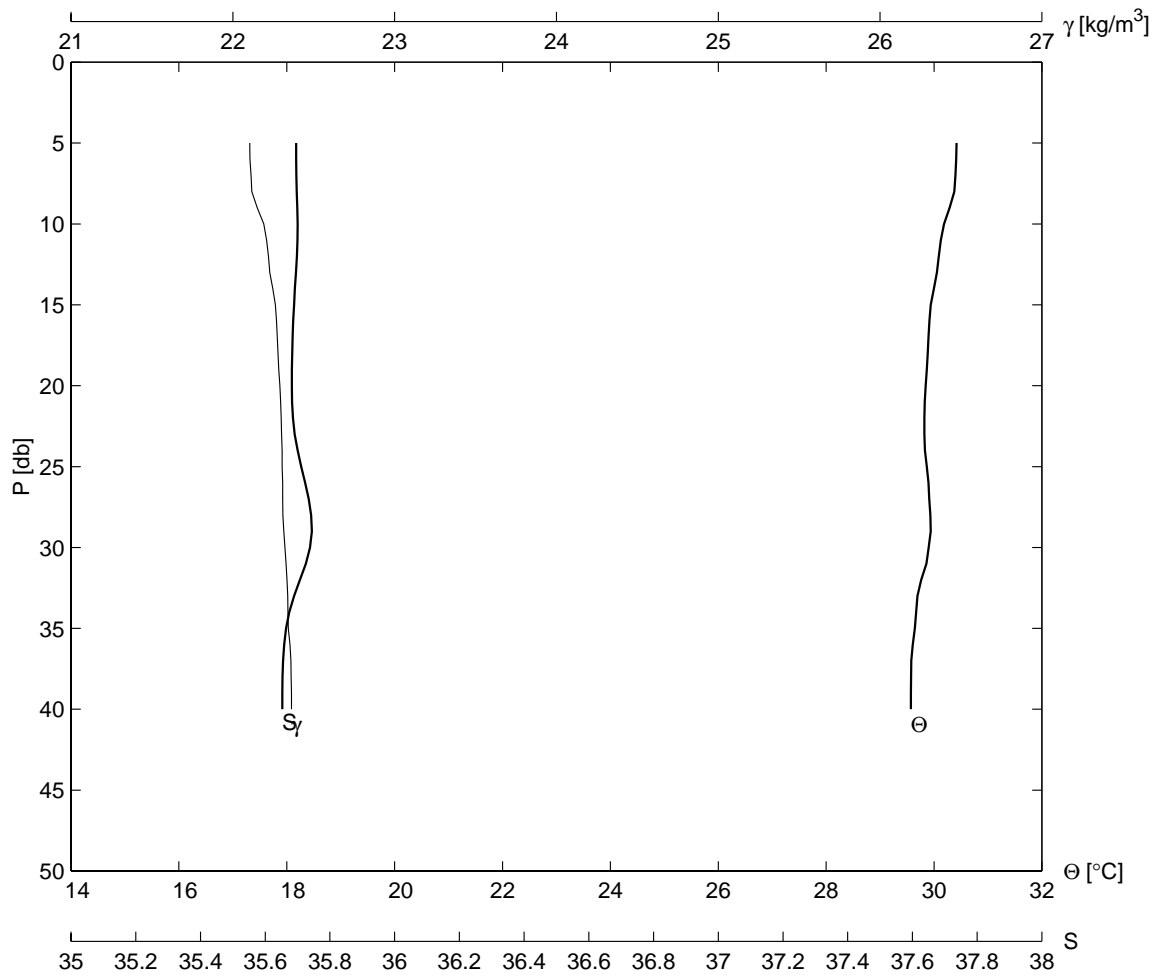
ESTACION	LANCE	LATITUD	LONGITUD	DD	MM	AA	H[UT]		
F14	41	31 27.5	114 6.0	10	8	2000	0023		
PROFTOT	TEMSUP	SALSUP	TEBUHU	TEBUSE	V-MAG	DIR	NUBES	BAROM	
[m]	[°C]	[ups]	[°C]	[°C]	[m/s]	[AZM]	[1/8]	[bar]	
8.1	31.4	35.74	28.0	31.8	51.4	999	9	99.9	
PR	Θ	SA	γ	OX	PR	Θ	SA	γ	OX
[db]	[°C]		[kg/m <sup>3</sup> ]	[ml/l]	[db]	[°C]		[kg/m <sup>3</sup> ]	[ml/l]
3.0	31.301	35.778	21.858	99.900	6.0	31.302	35.837	21.902	99.900
4.0	31.302	35.829	21.896	99.900	7.0	31.302	35.845	21.908	99.900
5.0	31.302	35.829	21.896	99.900	8.0	31.285	35.868	21.932	99.900
8.0	31.285	35.868	21.932	99.900					



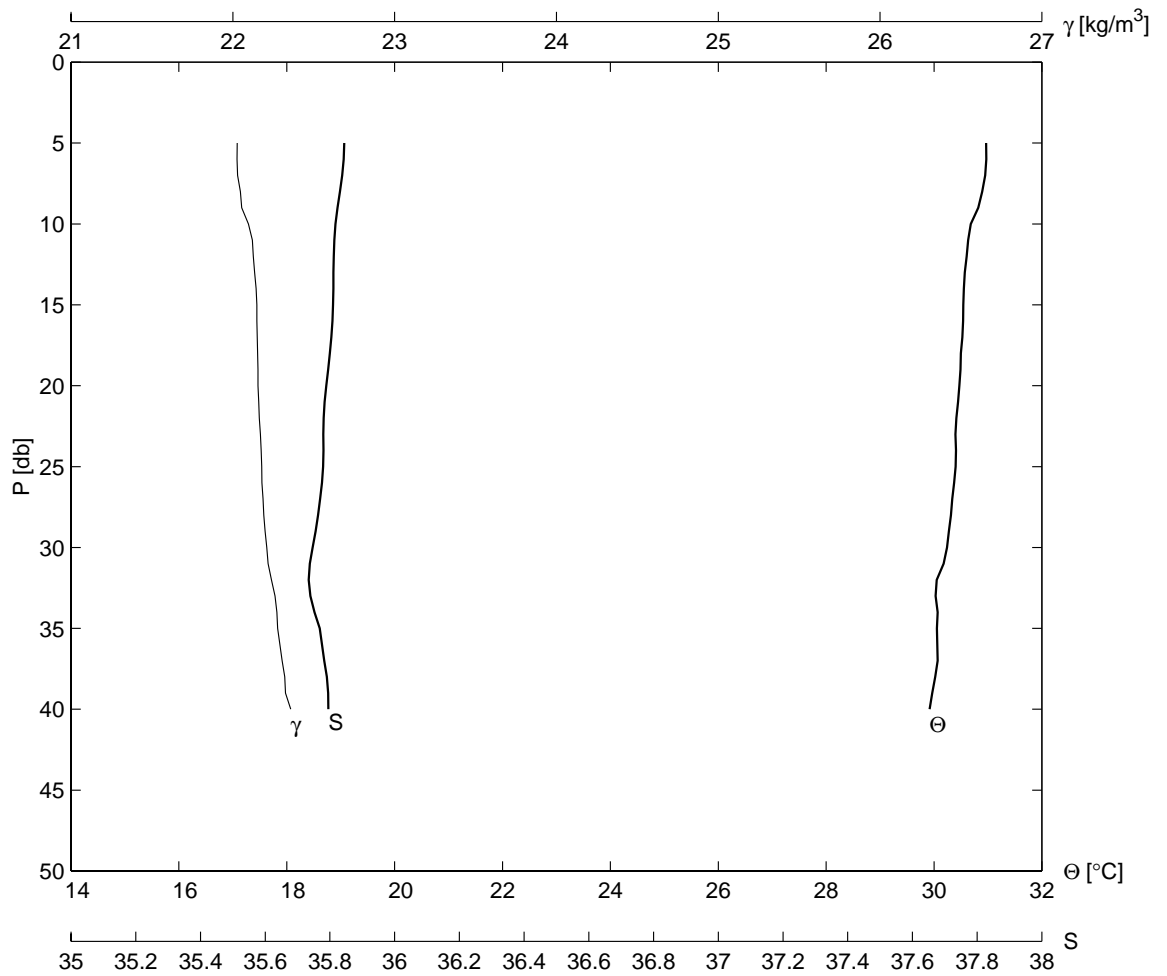
ESTACION	LANCE	LATITUD	LONGITUD	DD	MM	AA	H[UT]		
F13	42	31 25.0	114 10.1	10	8	2000	0106		
PROFTOT	TEMSUP	SALSUP	TEBUHU	TEBUSE	V-MAG	DIR	NUBES	BAROM	
[m]	[°C]	[ups]	[°C]	[°C]	[m/s]	[AZM]	[1/8]	[bar]	
39.7	31.2	35.70	27.2	32.0	51.4	999	9	99.9	
PR	Θ	SA	γ	OX	PR	Θ	SA	γ	OX
[db]	[°C]		[kg/m <sup>3</sup> ]	[ml/l]	[db]	[°C]		[kg/m <sup>3</sup> ]	[ml/l]
2.0	30.782	35.767	22.031	99.900	9.0	30.767	35.835	22.087	99.900
3.0	30.780	35.798	22.055	99.900	10.0	30.746	35.855	22.110	99.900
4.0	30.780	35.803	22.059	99.900	15.0	30.626	35.961	22.231	99.900
5.0	30.780	35.809	22.063	99.900	20.0	30.513	36.054	22.340	99.900
6.0	30.779	35.812	22.066	99.900	25.0	30.450	36.106	22.401	99.900
7.0	30.777	35.820	22.073	99.900	30.0	30.442	36.113	22.409	99.900
8.0	30.773	35.828	22.080	99.900	37.0	30.434	36.119	22.416	99.900



ESTACION	LANCE	LATITUD	LONGITUD	DD	MM	AA	H[UT]		
F12	43	31 22.5	114 15.1	10	8	2000	0155		
PROFTOT	TEMSUP	SALSUP	TEBUHU	TEBUSE	V-MAG	DIR	NUBES	BAROM	
[m]	[°C]	[ups]	[°C]	[°C]	[m/s]	[AZM]	[1/8]	[bar]	
40.8	30.8	35.68	28.0	31.0	51.4	999	9	99.9	
PR	Θ	SA	γ	OX	PR	Θ	SA	γ	OX
[db]	[°C]		[kg/m <sup>3</sup> ]	[ml/l]	[db]	[°C]		[kg/m <sup>3</sup> ]	[ml/l]
5.0	30.417	35.696	22.105	99.900	15.0	29.940	35.688	22.262	99.900
6.0	30.411	35.695	22.106	99.900	20.0	29.844	35.682	22.291	99.900
7.0	30.396	35.696	22.112	99.900	25.0	29.867	35.711	22.305	99.900
8.0	30.376	35.694	22.117	99.900	30.0	29.900	35.749	22.322	99.900
9.0	30.291	35.699	22.150	99.900	40.0	29.571	35.653	22.362	99.900
10.0	30.186	35.705	22.191	99.900	40.0	29.571	35.653	22.362	99.900

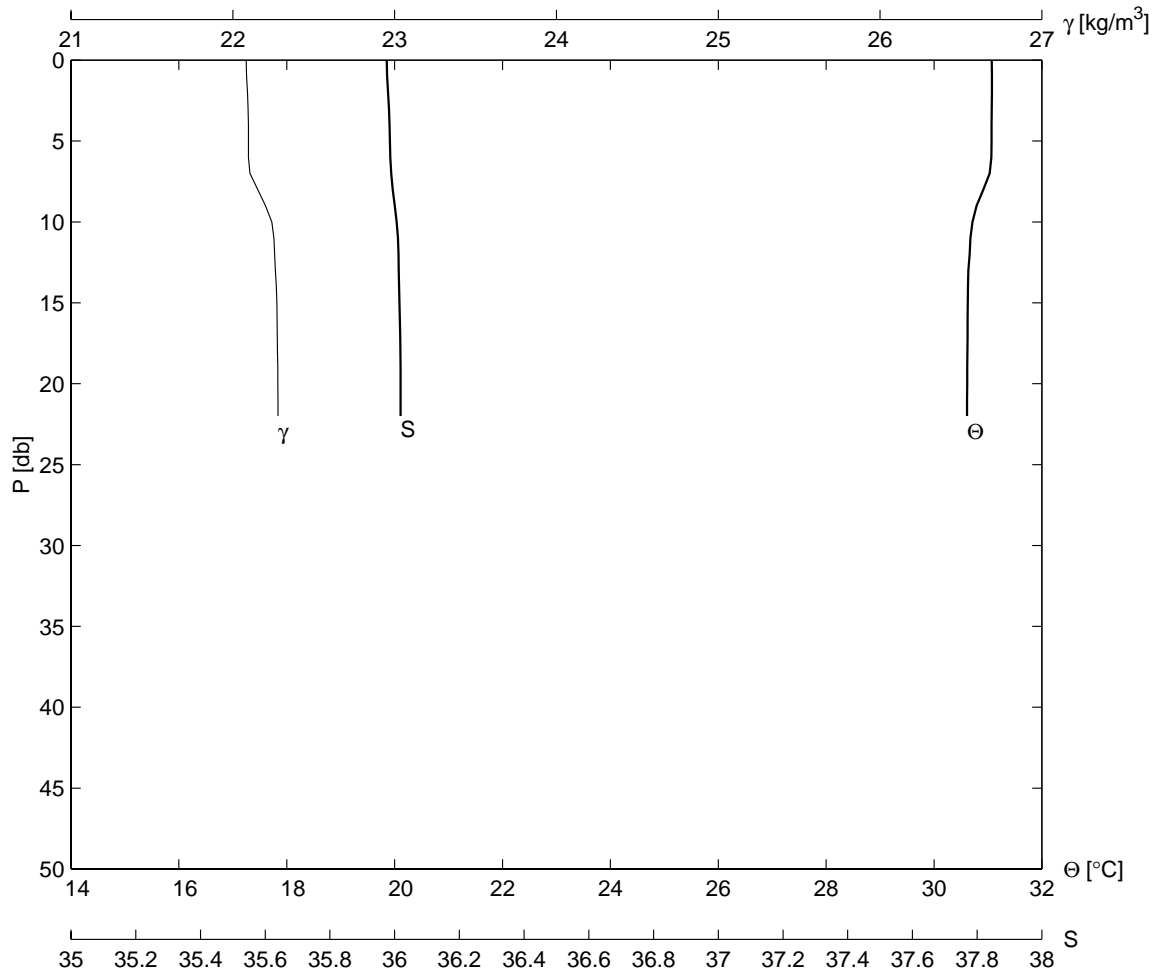


ESTACION	LANCE	LATITUD	LONGITUD	DD	MM	AA	H[UT]		
F11	44	31 19.9	114 19.9	10	8	2000	0242		
PROFTOT	TEMSUP	SALSUP	TEBUHU	TEBUSE	V-MAG	DIR	NUBES	BAROM	
[m]	[°C]	[ups]	[°C]	[°C]	[m/s]	[AZM]	[1/8]	[bar]	
40.0	31.4	35.83	26.0	30.5	51.4	999	9	99.9	
PR	$\Theta$	SA	$\gamma$	OX	PR	$\Theta$	SA	$\gamma$	OX
[db]	[°C]		[kg/m <sup>3</sup> ]	[ml/l]	[db]	[°C]		[kg/m <sup>3</sup> ]	[ml/l]
5.0	30.965	35.846	22.027	99.900	15.0	30.544	35.813	22.148	99.900
6.0	30.969	35.847	22.026	99.900	20.0	30.471	35.788	22.155	99.900
7.0	30.949	35.842	22.029	99.900	25.0	30.401	35.788	22.179	99.900
8.0	30.892	35.838	22.047	99.900	30.0	30.243	35.755	22.209	99.900
9.0	30.822	35.816	22.054	99.900	40.0	29.920	35.806	22.358	99.900
10.0	30.681	35.806	22.096	99.900	40.0	29.920	35.806	22.358	99.900

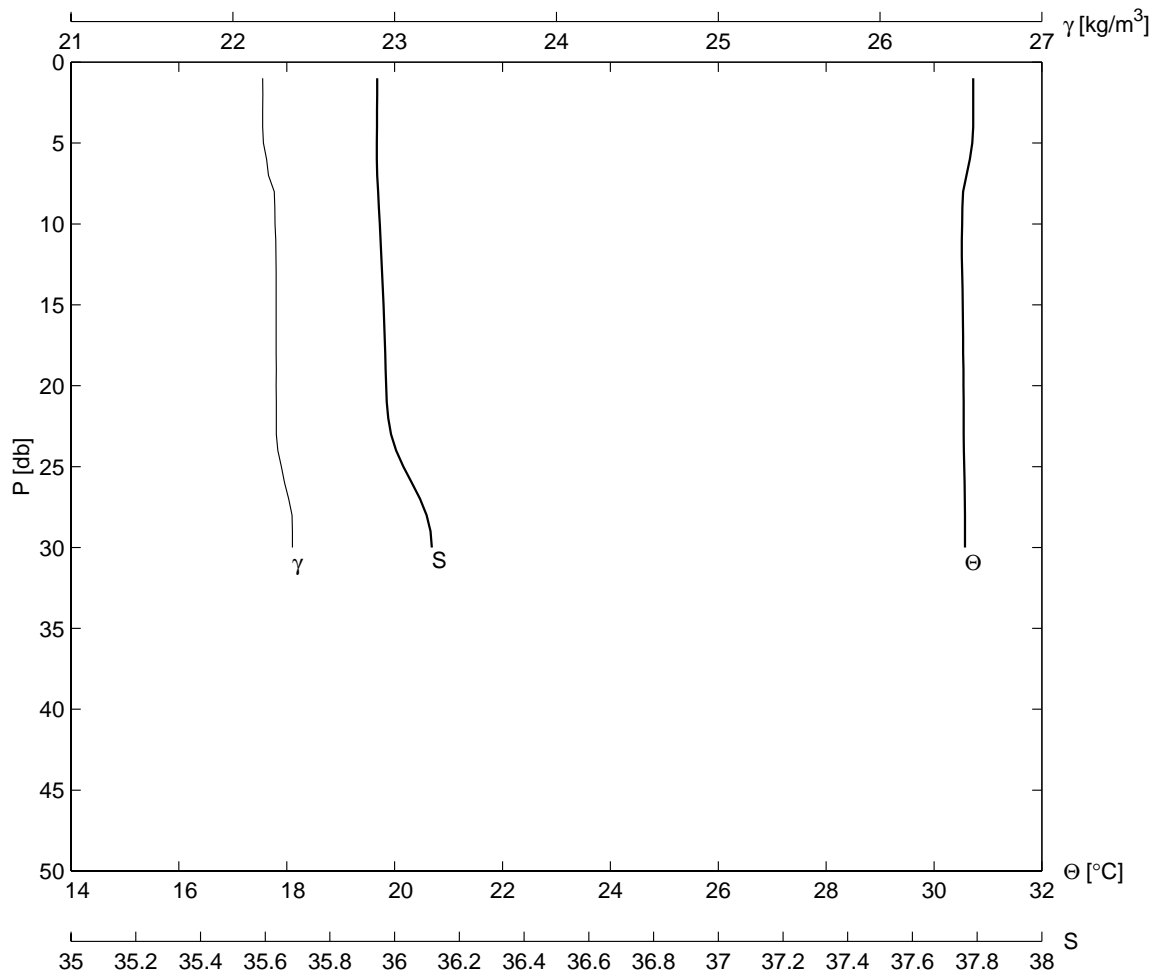




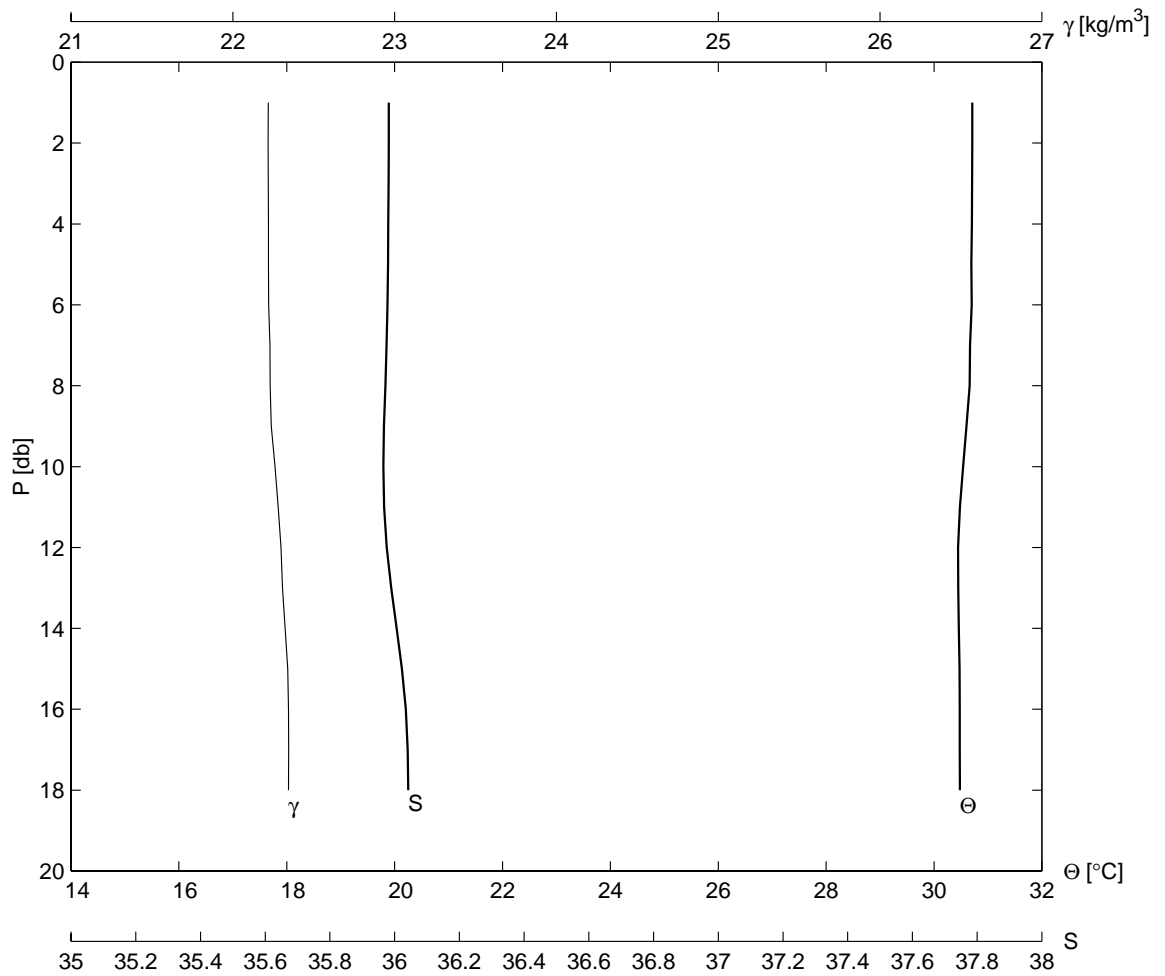
ESTACION	LANCE	LATITUD	LONGITUD	DD	MM	AA	H[UT]		
F10	45	31 17.4	114 24.9	10	8	2000	0332		
PROFTOT	TEMSUP	SALSUP	TEBUHU	TEBUSE	V-MAG	DIR	NUBES	BAROM	
[m]	[°C]	[ups]	[°C]	[°C]	[m/s]	[AZM]	[1/8]	[bar]	
24.0	31.5	35.97	27.0	30.0	1.8	270	9	1004.0	
PR	Θ	SA	γ	OX	PR	Θ	SA	γ	OX
[db]	[°C]		[kg/m <sup>3</sup> ]	[ml/l]	[db]	[°C]		[kg/m <sup>3</sup> ]	[ml/l]
2.0	31.072	35.981	22.090	99.900	8.0	30.914	35.992	22.154	99.900
3.0	31.069	35.985	22.095	99.900	9.0	30.789	35.997	22.201	99.900
4.0	31.065	35.986	22.096	99.900	10.0	30.714	36.016	22.241	99.900
5.0	31.066	35.986	22.096	99.900	15.0	30.626	36.016	22.272	99.900
6.0	31.065	35.986	22.096	99.900	20.0	30.614	36.018	22.278	99.900
7.0	31.033	35.983	22.106	99.900	22.0	30.611	36.019	22.280	99.900



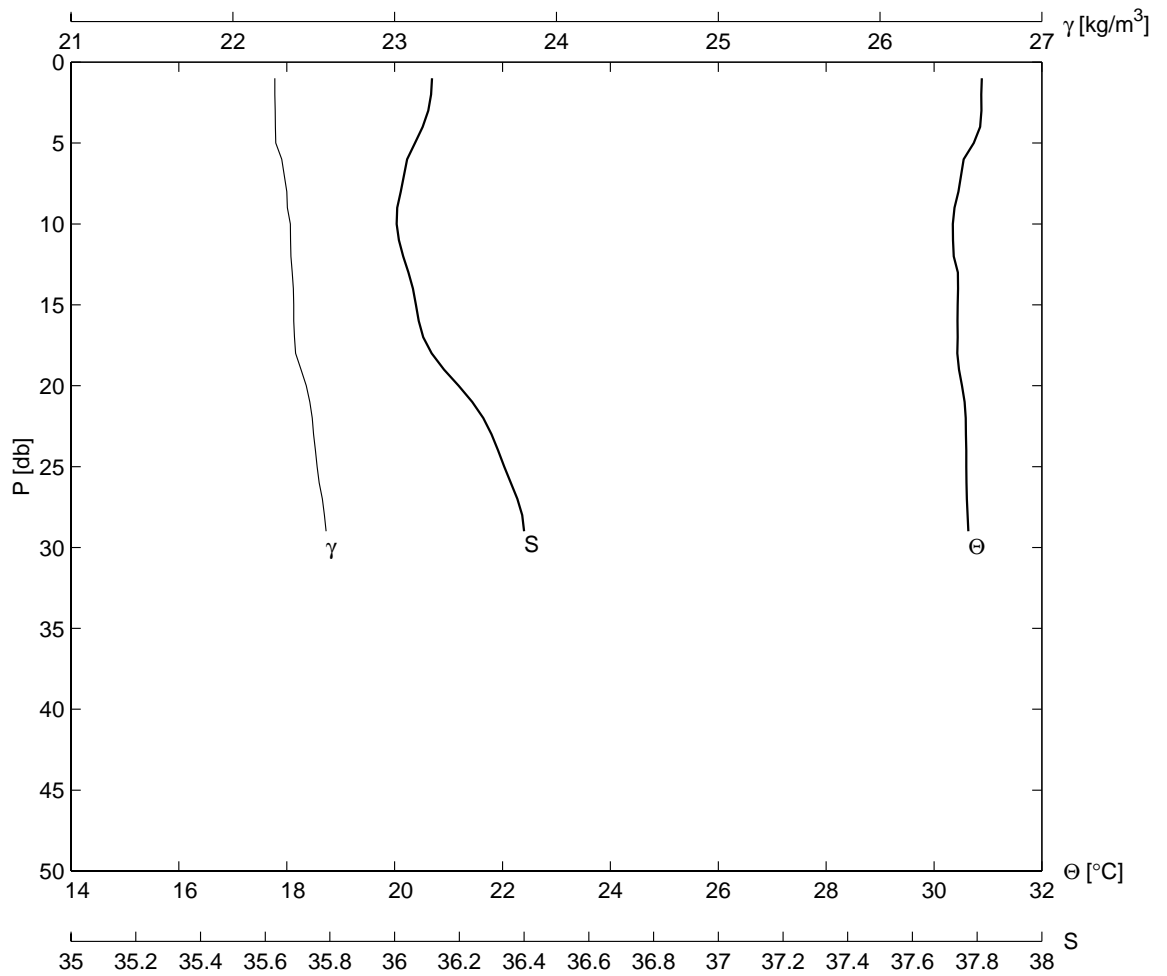
ESTACION	LANCE	LATITUD	LONGITUD	DD	MM	AA	H[UT]		
F09	46	31 16.3	114 27.0	10	8	2000	0358		
PROFTOT	TEMSUP	SALSUP	TEBUHU	TEBUSE	V-MAG	DIR	NUBES	BAROM	
[m]	[°C]	[ups]	[°C]	[°C]	[m/s]	[AZM]	[1/8]	[bar]	
32.1	31.2	35.93	28.0	31.0	1.8	280	9	1006.0	
PR	Θ	SA	γ	OX	PR	Θ	SA	γ	OX
[db]	[°C]		[kg/m <sup>3</sup> ]	[ml/l]	[db]	[°C]		[kg/m <sup>3</sup> ]	[ml/l]
2.0	30.727	35.947	22.185	99.900	9.0	30.526	35.953	22.260	99.900
3.0	30.727	35.946	22.184	99.900	10.0	30.522	35.953	22.261	99.900
4.0	30.727	35.946	22.184	99.900	15.0	30.532	35.966	22.267	99.900
5.0	30.709	35.943	22.189	99.900	20.0	30.547	35.974	22.268	99.900
6.0	30.664	35.948	22.208	99.900	25.0	30.559	36.022	22.300	99.900
7.0	30.601	35.936	22.221	99.900	30.0	30.574	36.121	22.369	99.900
8.0	30.538	35.953	22.256	99.900	30.0	30.574	36.121	22.369	99.900



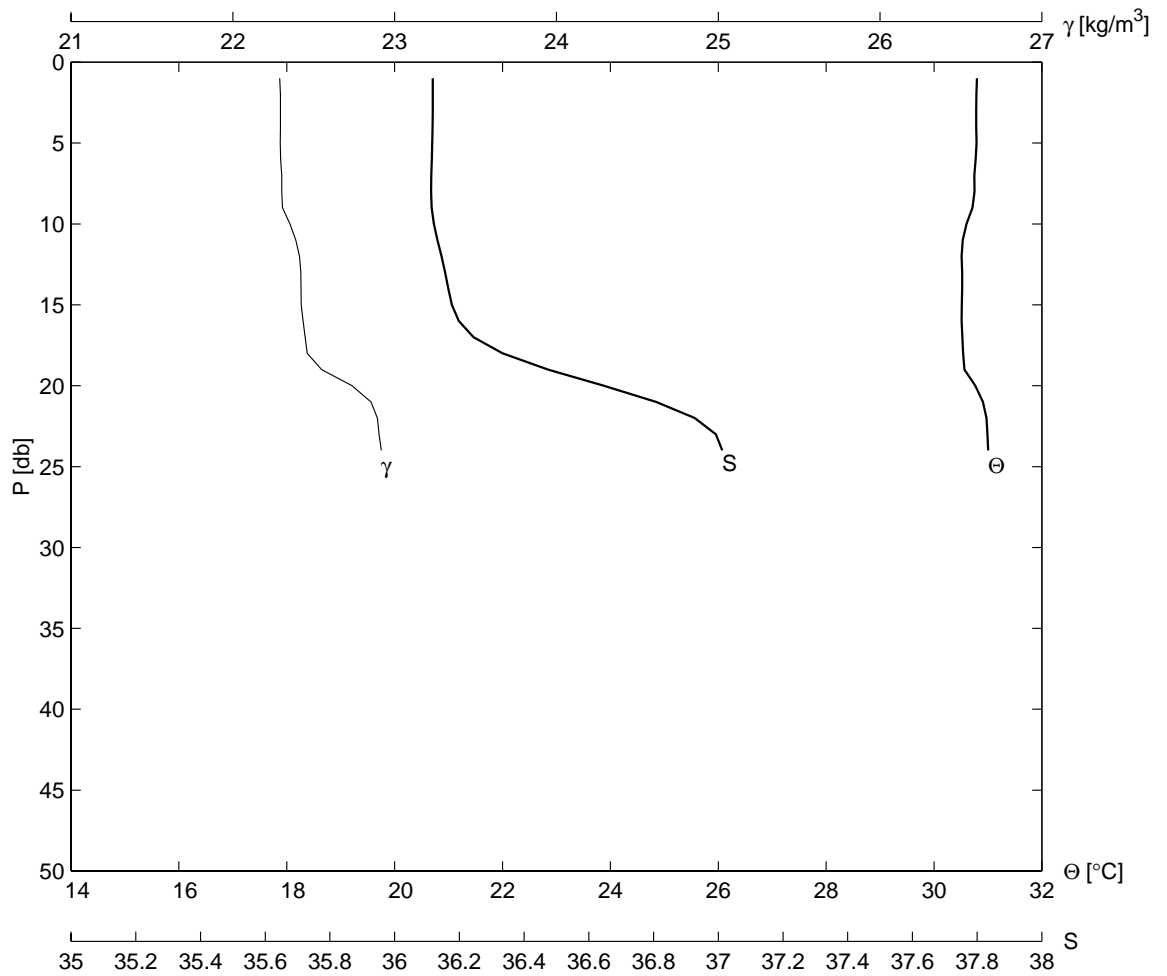
ESTACION	LANCE	LATITUD	LONGITUD	DD	MM	AA	H[UT]		
F08	47	31 15.1	114 30.0	10	8	2000	0428		
PROFTOT	TEMSUP	SALSUP	TEBUHU	TEBUSE	V-MAG	DIR	NUBES	BAROM	
[m]	[°C]	[ups]	[°C]	[°C]	[m/s]	[AZM]	[1/8]	[bar]	
19.0	31.1	35.95	27.0	30.0	1.3	260	9	1010.0	
PR	$\Theta$	SA	$\gamma$	OX	PR	$\Theta$	SA	$\gamma$	OX
[db]	[°C]		[kg/m <sup>3</sup> ]	[ml/l]	[db]	[°C]		[kg/m <sup>3</sup> ]	[ml/l]
2.0	30.710	35.982	22.217	99.900	7.0	30.667	35.977	22.229	99.900
3.0	30.707	35.982	22.219	99.900	8.0	30.661	35.976	22.230	99.900
4.0	30.702	35.981	22.220	99.900	9.0	30.603	35.960	22.238	99.900
5.0	30.691	35.977	22.220	99.900	10.0	30.541	35.962	22.261	99.900
6.0	30.698	35.981	22.221	99.900	15.0	30.474	36.036	22.340	99.900
18.0	30.479	36.044	22.344	99.900					



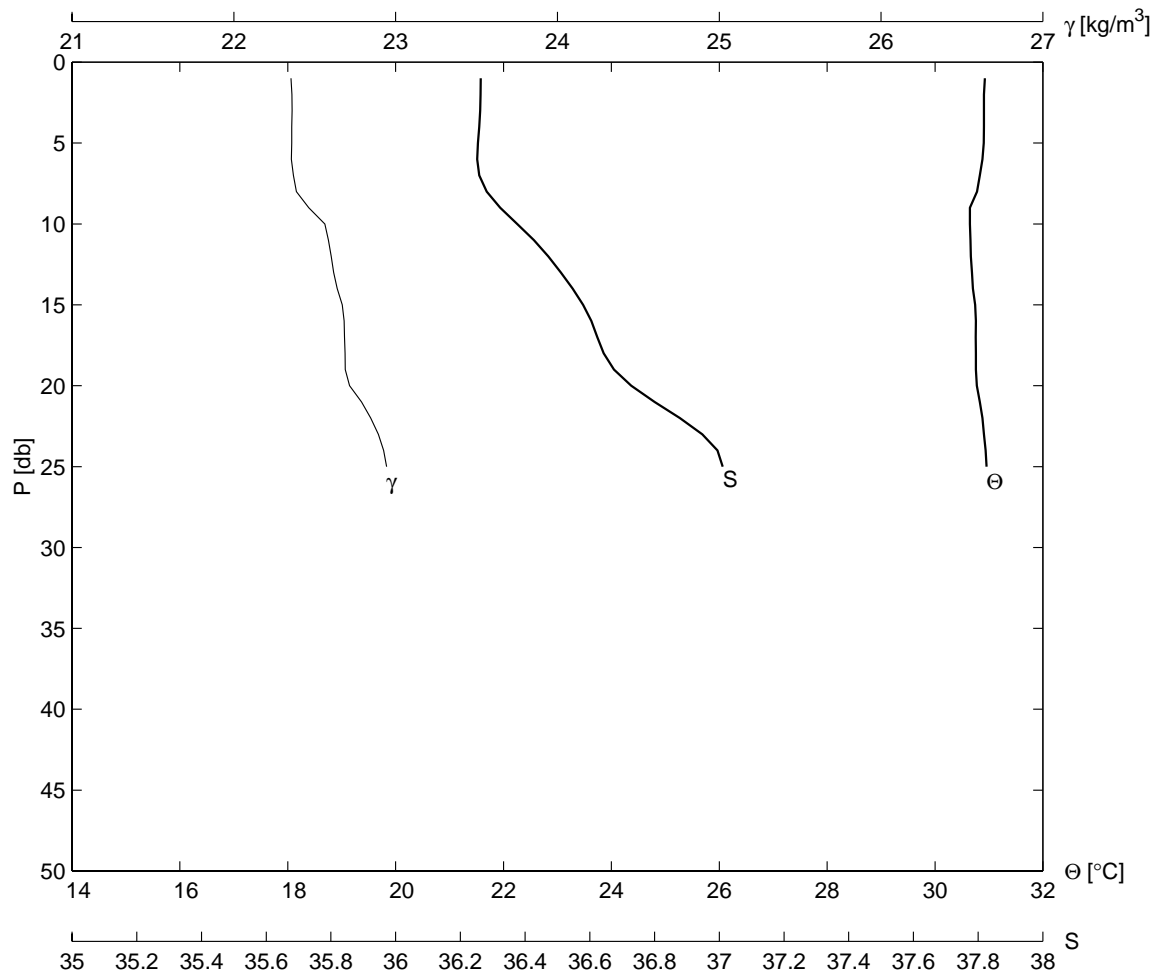
ESTACION	LANCE	LATITUD	LONGITUD	DD	MM	AA	H[UT]		
F07	48	31 13.8	114 32.4	10	8	2000	0456		
PROFTOT	TEMSUP	SALSUP	TEBUHU	TEBUSE	V-MAG	DIR	NUBES	BAROM	
[m]	[°C]	[ups]	[°C]	[°C]	[m/s]	[AZM]	[1/8]	[bar]	
30.7	31.3	36.09	27.0	31.0	1.5	38	9	1006.0	
PR	$\Theta$	SA	$\gamma$	OX	PR	$\Theta$	SA	$\gamma$	OX
[db]	[°C]		[kg/m <sup>3</sup> ]	[ml/l]	[db]	[°C]		[kg/m <sup>3</sup> ]	[ml/l]
2.0	30.877	36.116	22.259	99.900	9.0	30.381	35.990	22.337	99.900
3.0	30.878	36.118	22.261	99.900	10.0	30.348	35.999	22.355	99.900
4.0	30.856	36.111	22.263	99.900	15.0	30.439	36.069	22.376	99.900
5.0	30.738	36.058	22.265	99.900	20.0	30.520	36.209	22.454	99.900
6.0	30.548	36.020	22.302	99.900	25.0	30.598	36.335	22.521	99.900
8.0	30.451	36.016	22.333	99.900	29.0	30.637	36.427	22.577	99.900



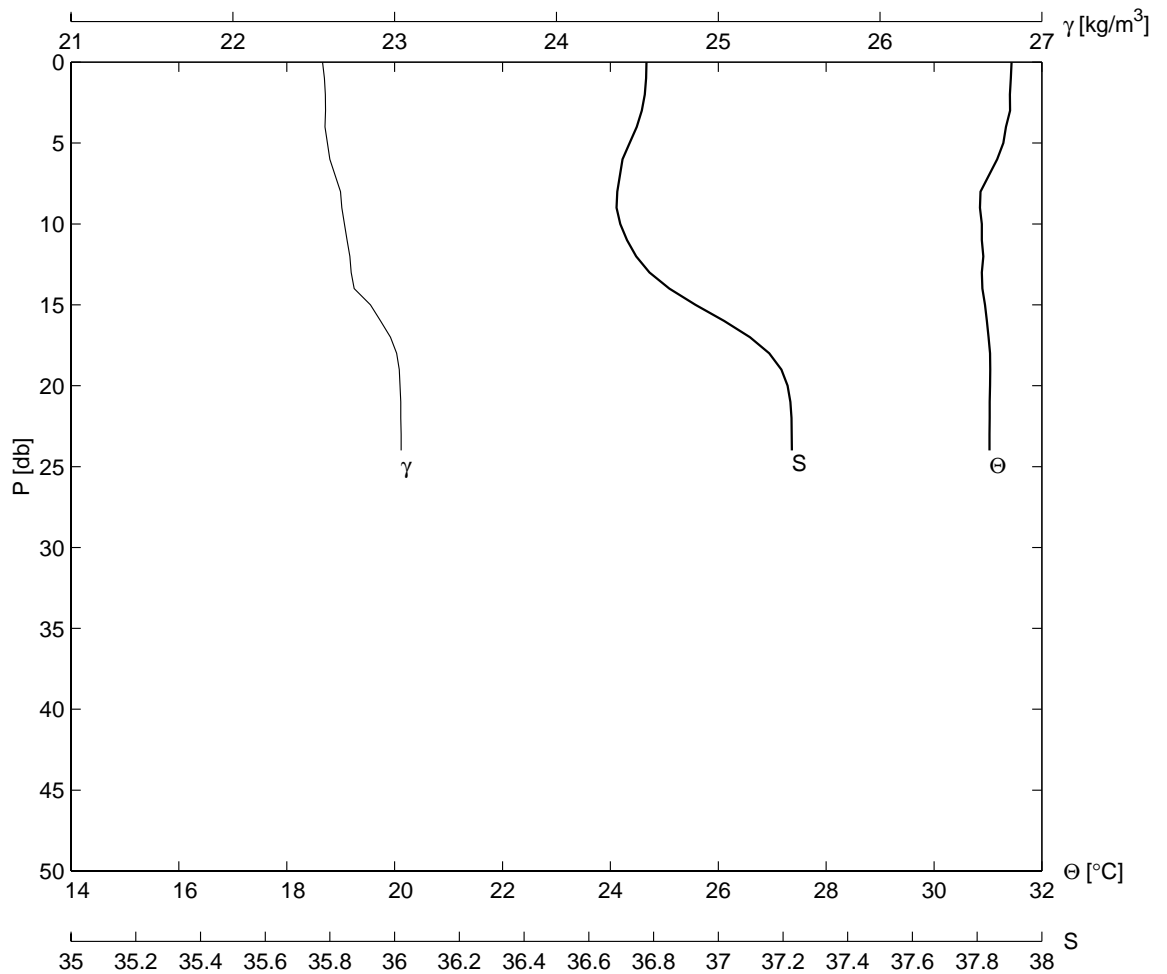
ESTACION	LANCE	LATITUD	LONGITUD	DD	MM	AA	H[UT]		
F06	49	31 12.3	114 34.9	10	8	2000	0527		
PROFTOT	TEMSUP	SALSUP	TEBUHU	TEBUSE	V-MAG	DIR	NUBES	BAROM	
[m]	[°C]	[ups]	[°C]	[°C]	[m/s]	[AZM]	[1/8]	[bar]	
25.0	31.2	36.09	27.0	31.0	1.5	30	9	1006.0	
PR	Θ	SA	γ	OX	PR	Θ	SA	γ	OX
[db]	[°C]		[kg/m <sup>3</sup> ]	[ml/l]	[db]	[°C]		[kg/m <sup>3</sup> ]	[ml/l]
2.0	30.784	36.118	22.294	99.900	8.0	30.750	36.113	22.302	99.900
3.0	30.782	36.117	22.294	99.900	9.0	30.712	36.102	22.307	99.900
4.0	30.783	36.118	22.294	99.900	10.0	30.603	36.113	22.353	99.900
5.0	30.788	36.119	22.293	99.900	15.0	30.516	36.166	22.423	99.900
6.0	30.771	36.114	22.295	99.900	20.0	30.764	36.699	22.736	99.900
7.0	30.749	36.113	22.302	99.900	24.0	31.005	37.053	22.917	99.900



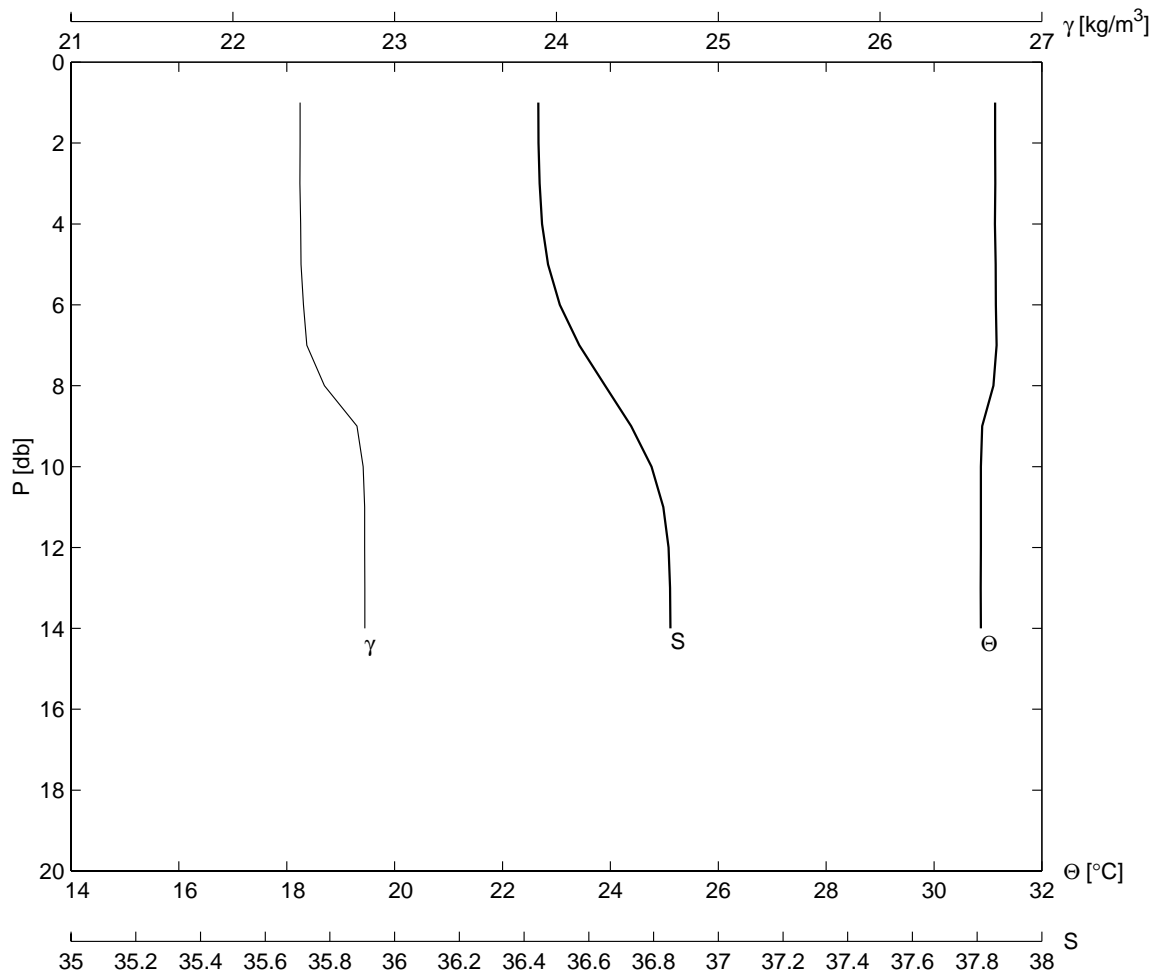
ESTACION	LANCE	LATITUD	LONGITUD	DD	MM	AA	H[UT]		
F05	50	31 11.1	114 37.3	10	8	2000	0557		
PROFTOT	TEMSUP	SALSUP	TEBUHU	TEBUSE	V-MAG	DIR	NUBES	BAROM	
[m]	[°C]	[ups]	[°C]	[°C]	[m/s]	[AZM]	[1/8]	[bar]	
27.0	31.3	36.22	27.5	31.0	1.8	40	9	1006.0	
PR	Θ	SA	γ	OX	PR	Θ	SA	γ	OX
[db]	[°C]		[kg/m <sup>3</sup> ]	[ml/l]	[db]	[°C]		[kg/m <sup>3</sup> ]	[ml/l]
2.0	30.908	36.263	22.359	99.900	8.0	30.778	36.240	22.387	99.900
3.0	30.907	36.264	22.360	99.900	9.0	30.647	36.280	22.463	99.900
4.0	30.906	36.261	22.358	99.900	10.0	30.647	36.412	22.562	99.900
5.0	30.905	36.259	22.357	99.900	15.0	30.744	36.601	22.670	99.900
6.0	30.878	36.245	22.355	99.900	20.0	30.774	36.675	22.715	99.900
7.0	30.829	36.238	22.368	99.900	25.0	30.956	37.066	22.944	99.900
25.0	30.956	37.066	22.944	99.900					



ESTACION	LANCE	LATITUD	LONGITUD	DD	MM	AA	H[UT]		
F04	51	31 9.9	114 39.7	10	8	2000	0625		
PROFTOT	TEMSUP	SALSUP	TEBUHU	TEBUSE	V-MAG	DIR	NUBES	BAROM	
[m]	[°C]	[ups]	[°C]	[°C]	[m/s]	[AZM]	[1/8]	[bar]	
26.0	31.8	36.74	27.5	30.0	2.3	320	9	1007.0	
PR	Θ	SA	γ	OX	PR	Θ	SA	γ	OX
[db]	[°C]		[kg/m <sup>3</sup> ]	[ml/l]	[db]	[°C]		[kg/m <sup>3</sup> ]	[ml/l]
2.0	31.406	36.781	22.572	99.900	8.0	30.861	36.650	22.666	99.900
3.0	31.410	36.784	22.573	99.900	9.0	30.852	36.656	22.673	99.900
4.0	31.333	36.743	22.570	99.900	10.0	30.885	36.694	22.690	99.900
5.0	31.284	36.740	22.584	99.900	15.0	30.945	36.936	22.851	99.900
6.0	31.171	36.706	22.599	99.900	20.0	31.038	37.224	23.034	99.900
24.0	31.029	37.227	23.040	99.900					

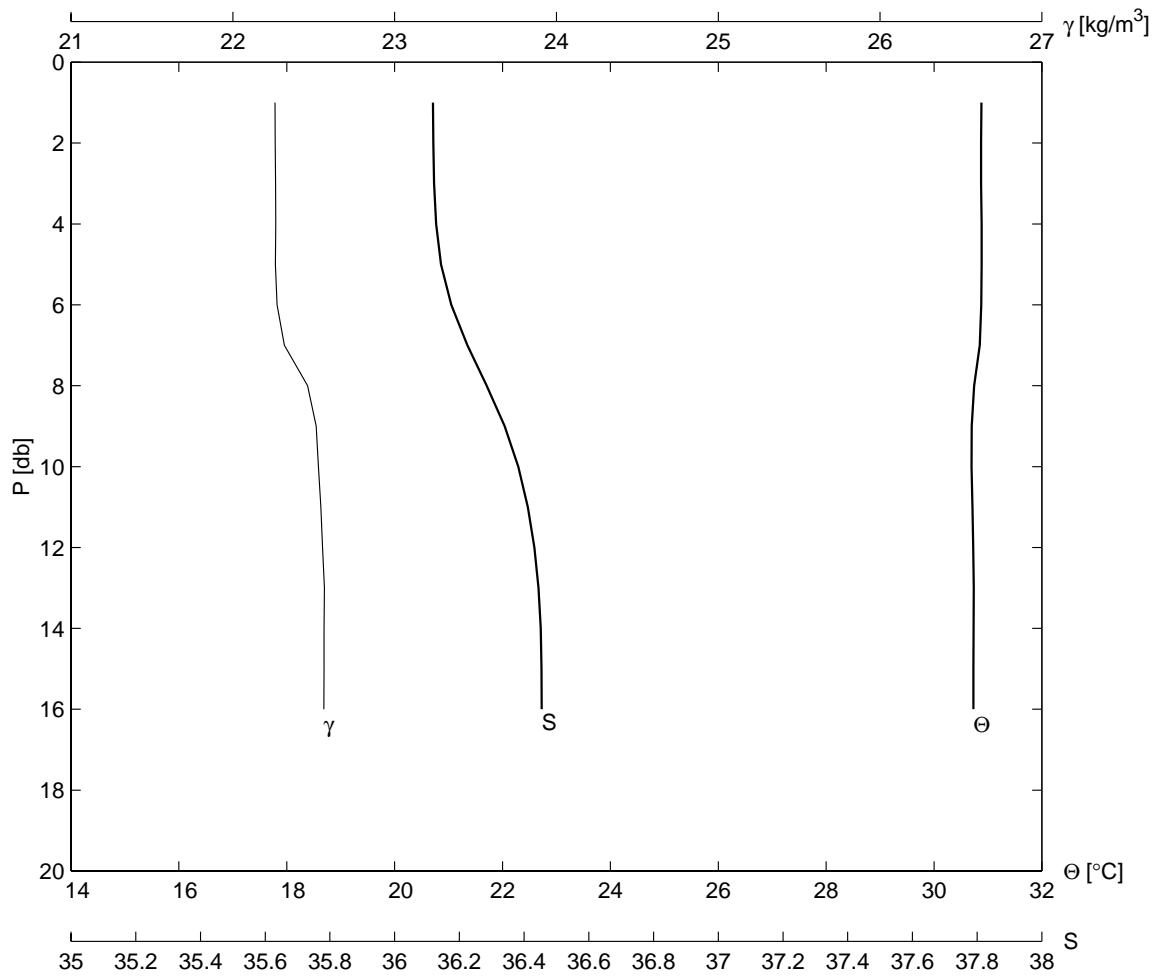


ESTACION	LANCE	LATITUD	LONGITUD	DD	MM	AA	H[UT]		
F03	52	31 8.5	114 41.7	10	8	2000	0653		
PROFTOT	TEMSUP	SALSUP	TEBUHU	TEBUSE	V-MAG	DIR	NUBES	BAROM	
[m]	[°C]	[ups]	[°C]	[°C]	[m/s]	[AZM]	[1/8]	[bar]	
16.3	31.5	36.45	27.0	31.0	0.0	999	9	1007.0	
PR	Θ	SA	γ	OX	PR	Θ	SA	γ	OX
[db]	[°C]		[kg/m <sup>3</sup> ]	[ml/l]	[db]	[°C]		[kg/m <sup>3</sup> ]	[ml/l]
2.0	31.133	36.444	22.416	99.900	7.0	31.162	36.513	22.457	99.900
3.0	31.135	36.442	22.414	99.900	8.0	31.103	36.630	22.565	99.900
4.0	31.130	36.448	22.420	99.900	9.0	30.893	36.800	22.767	99.900
5.0	31.142	36.455	22.421	99.900	10.0	30.870	36.841	22.806	99.900
6.0	31.147	36.477	22.436	99.900	14.0	30.867	36.853	22.815	99.900

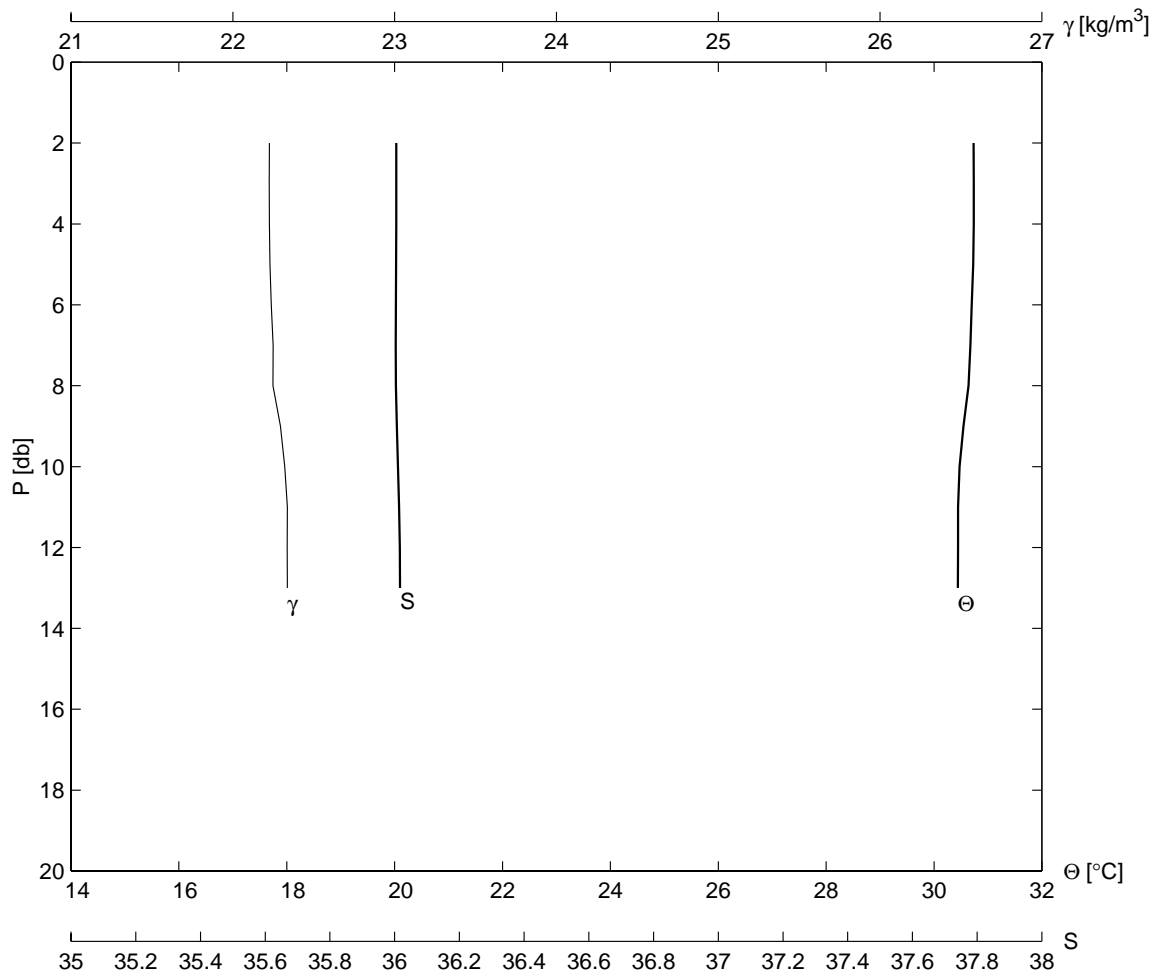




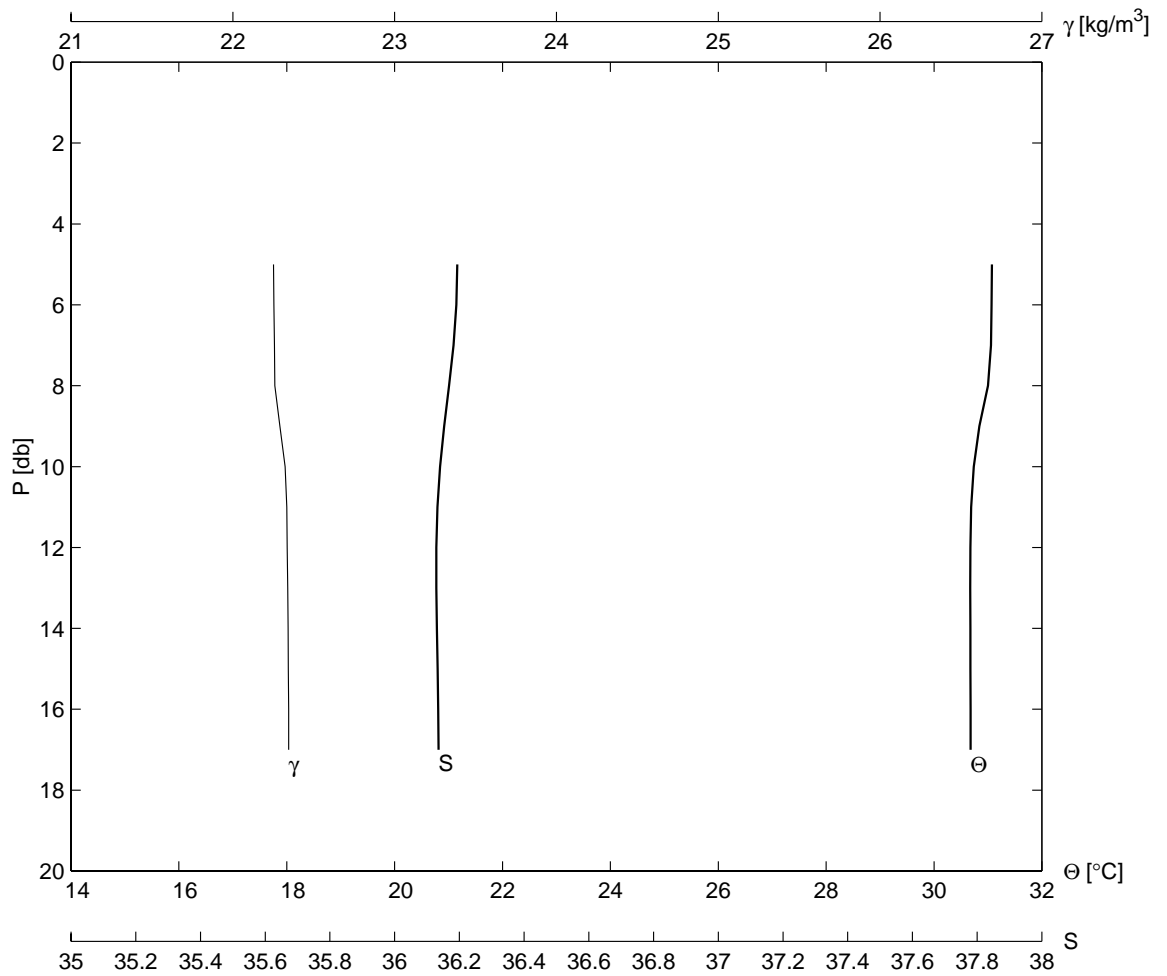
ESTACION	LANCE	LATITUD		LONGITUD		DD	MM	AA	H[UT]
F02	53	31	7.2	114	43.6	10	8	2000	0719
PROFTOT	TEMSUP	SALSUP	TEBUHU	TEBUSE	V-MAG	DIR	NUBES	BAROM	
[m]	[°C]	[ups]	[°C]	[°C]	[m/s]	[AZM]	[1/8]	[bar]	
16.7	31.3	36.11	27.5	30.5	0.0	999	9	1010.0	
PR	Θ	SA	γ	OX	PR	Θ	SA	γ	OX
[db]	[°C]		[kg/m <sup>3</sup> ]	[ml/l]	[db]	[°C]		[kg/m <sup>3</sup> ]	[ml/l]
2.0	30.872	36.116	22.262	99.900	7.0	30.848	36.180	22.318	99.900
3.0	30.873	36.119	22.264	99.900	8.0	30.746	36.324	22.461	99.900
4.0	30.881	36.125	22.265	99.900	9.0	30.699	36.374	22.515	99.900
5.0	30.884	36.124	22.263	99.900	10.0	30.695	36.391	22.529	99.900
6.0	30.876	36.134	22.273	99.900	15.0	30.732	36.455	22.564	99.900
16.0	30.732	36.453	22.563	99.900					



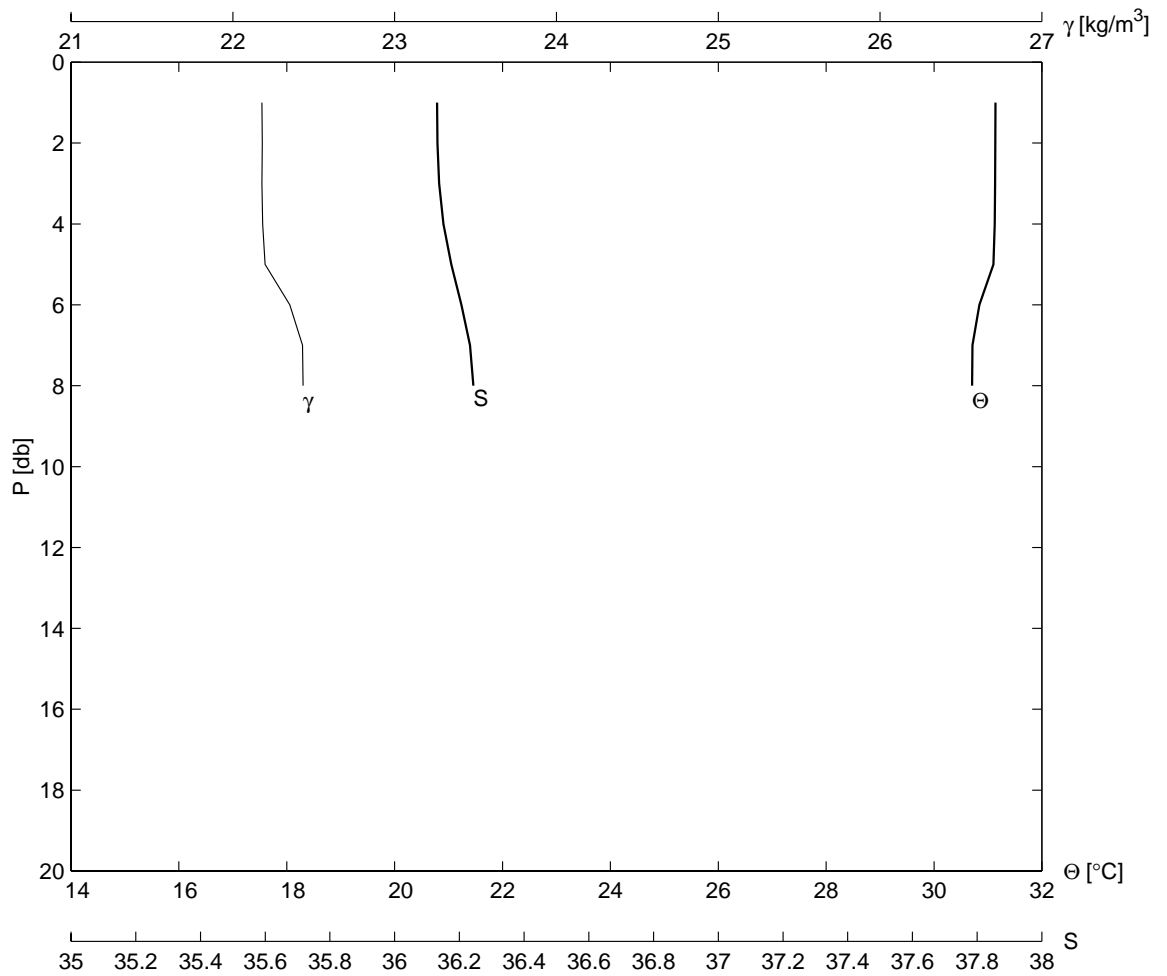
ESTACION	LANCE	LATITUD		LONGITUD		DD	MM	AA	H[UT]
FlA	54	31	6.0	114	46.6	10	8	2000	0753
PROFTOT	TEMSUP	SALSUP	TEBUHU	TEBUSE	V-MAG	DIR	NUBES	BAROM	
[m]	[°C]	[ups]	[°C]	[°C]	[m/s]	[AZM]	[1/8]	[bar]	
15.1	31.1	35.98	28.5	31.0	0.0	999	9	1010.0	
PR	Θ	SA	γ	OX	PR	Θ	SA	γ	OX
[db]	[°C]		[kg/m <sup>3</sup> ]	[ml/l]	[db]	[°C]		[kg/m <sup>3</sup> ]	[ml/l]
2.0	30.735	36.005	22.226	99.900	7.0	30.674	36.008	22.249	99.900
3.0	30.739	36.005	22.225	99.900	8.0	30.640	35.990	22.248	99.900
4.0	30.736	36.005	22.226	99.900	9.0	30.545	36.008	22.294	99.900
5.0	30.726	36.005	22.229	99.900	10.0	30.474	36.011	22.321	99.900
6.0	30.700	36.005	22.238	99.900	13.0	30.442	36.018	22.337	99.900



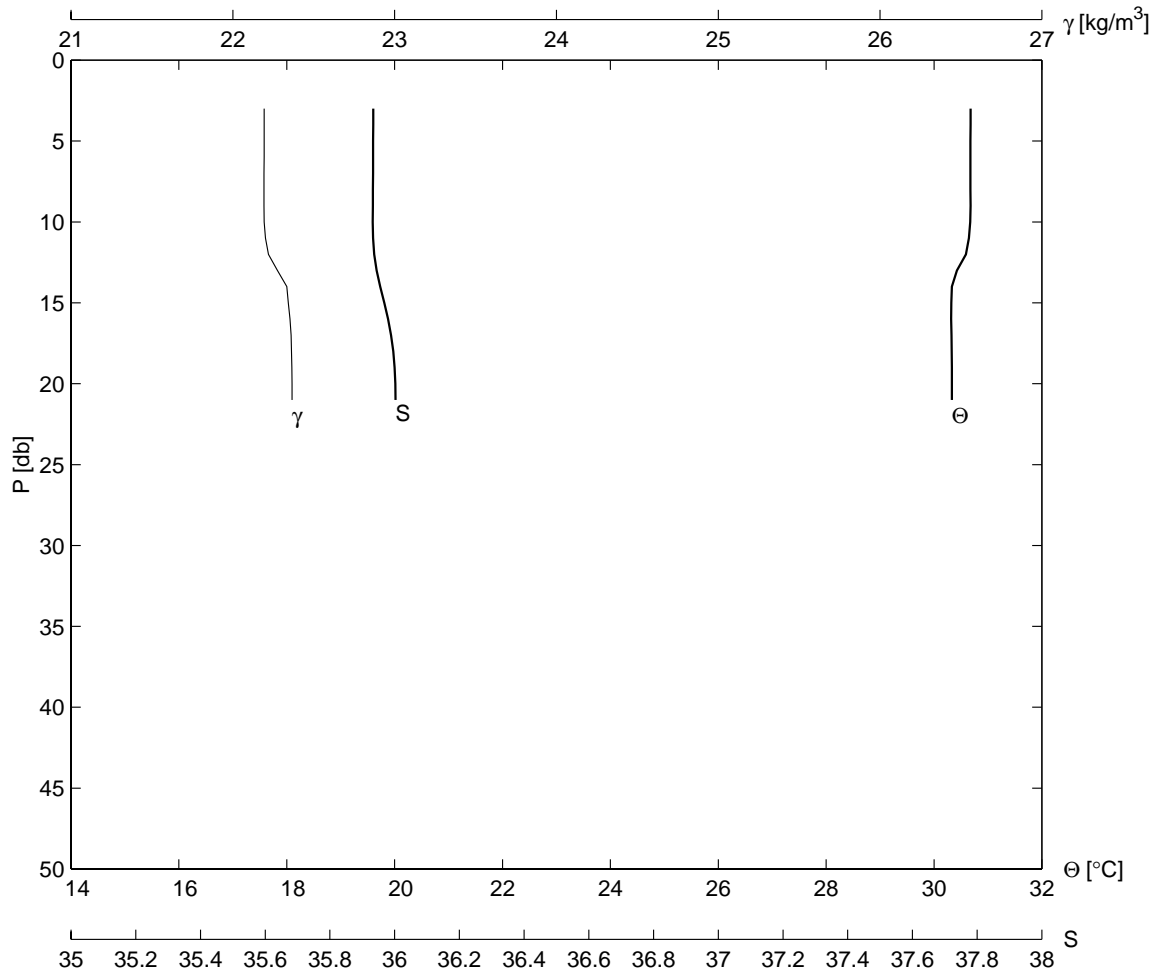
ESTACION	LANCE	LATITUD		LONGITUD		DD	MM	AA	H[UT]
F01	55	31	4.8	114	49.7	10	8	2000	0834
PROFTOT	TEMSUP	SALSUP	TEBUHU	TEBUSE	V-MAG	DIR	NUBES	BAROM	
[m]	[°C]	[ups]	[°C]	[°C]	[m/s]	[AZM]	[1/8]	[bar]	
17.3	31.4	36.18	26.7	31.0	0.0	999	9	1010.0	
PR	Θ	SA	γ	OX	PR	Θ	SA	γ	OX
[db]	[°C]		[kg/m <sup>3</sup> ]	[ml/l]	[db]	[°C]		[kg/m <sup>3</sup> ]	[ml/l]
5.0	31.073	36.197	22.252	99.900	9.0	30.842	36.141	22.291	99.900
6.0	31.068	36.198	22.254	99.900	10.0	30.736	36.134	22.323	99.900
7.0	31.057	36.196	22.257	99.900	15.0	30.675	36.133	22.343	99.900
8.0	31.000	36.173	22.259	99.900	17.0	30.679	36.137	22.345	99.900



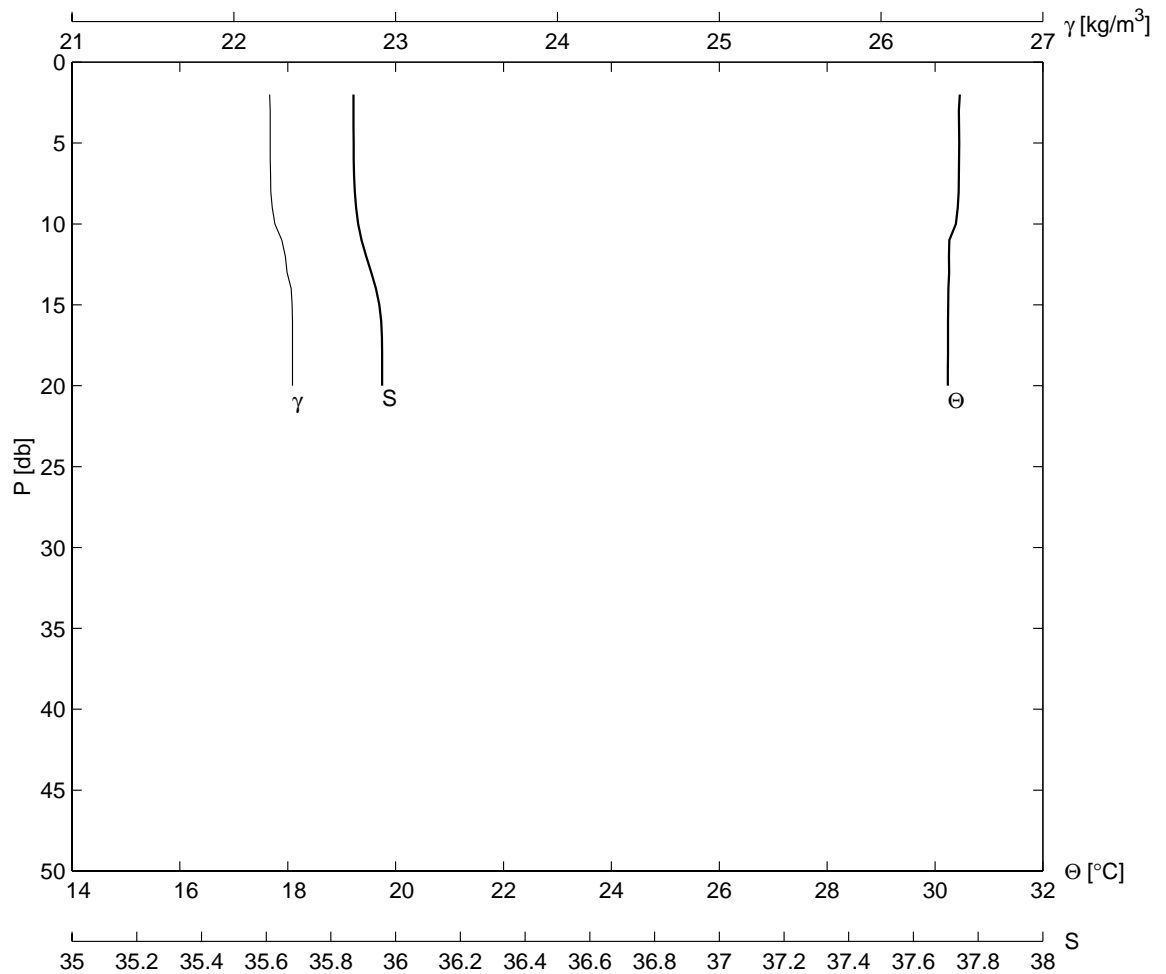
ESTACION	LANCE	LATITUD	LONGITUD	DD	MM	AA	H[UT]		
G01	56	31 0.0	114 48.0	10	8	2000	0932		
PROFTOT	TEMSUP	SALSUP	TEBUHU	TEBUSE	V-MAG	DIR	NUBES	BAROM	
[m]	[°C]	[ups]	[°C]	[°C]	[m/s]	[AZM]	[1/8]	[bar]	
8.4	30.8	35.98	26.0	31.0	0.0	999	9	1010.0	
PR	Θ	SA	γ	OX	PR	Θ	SA	γ	OX
[db]	[°C]		[kg/m <sup>3</sup> ]	[ml/l]	[db]	[°C]		[kg/m <sup>3</sup> ]	[ml/l]
2.0	31.135	36.132	22.181	99.900	6.0	30.841	36.223	22.352	99.900
3.0	31.134	36.129	22.179	99.900	7.0	30.712	36.268	22.431	99.900
4.0	31.127	36.132	22.184	99.900	8.0	30.705	36.269	22.434	99.900
5.0	31.100	36.139	22.199	99.900	8.0	30.705	36.269	22.434	99.900



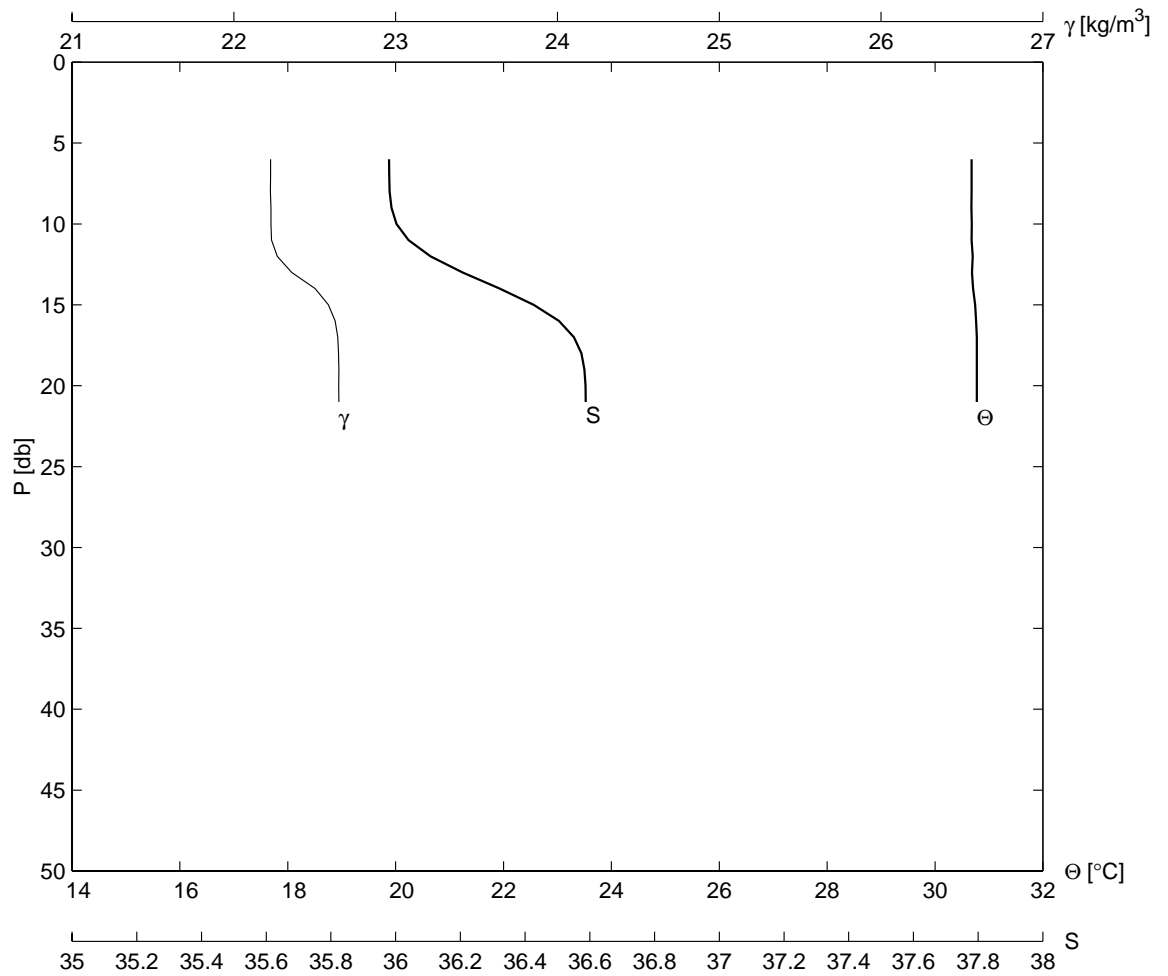
ESTACION	LANCE	LATITUD	LONGITUD	DD	MM	AA	H[UT]		
GLA	57	31 1.0	114 45.6	10	8	2000	1002		
PROFTOT	TEMSUP	SALSUP	TEBUHU	TEBUSE	V-MAG	DIR	NUBES	BAROM	
[m]	[°C]	[ups]	[°C]	[°C]	[m/s]	[AZM]	[1/8]	[bar]	
21.3	31.1	35.90	26.0	31.0	0.0	999	9	1010.0	
PR	Θ	SA	γ	OX	PR	Θ	SA	γ	OX
[db]	[°C]		[kg/m <sup>3</sup> ]	[ml/l]	[db]	[°C]		[kg/m <sup>3</sup> ]	[ml/l]
3.0	30.678	35.935	22.193	99.900	8.0	30.676	35.933	22.193	99.900
4.0	30.677	35.934	22.193	99.900	9.0	30.678	35.934	22.192	99.900
5.0	30.673	35.934	22.194	99.900	10.0	30.672	35.932	22.193	99.900
6.0	30.674	35.933	22.194	99.900	15.0	30.321	35.969	22.342	99.900
7.0	30.676	35.933	22.192	99.900	20.0	30.330	36.004	22.366	99.900
21.0	30.330	36.004	22.366	99.900					



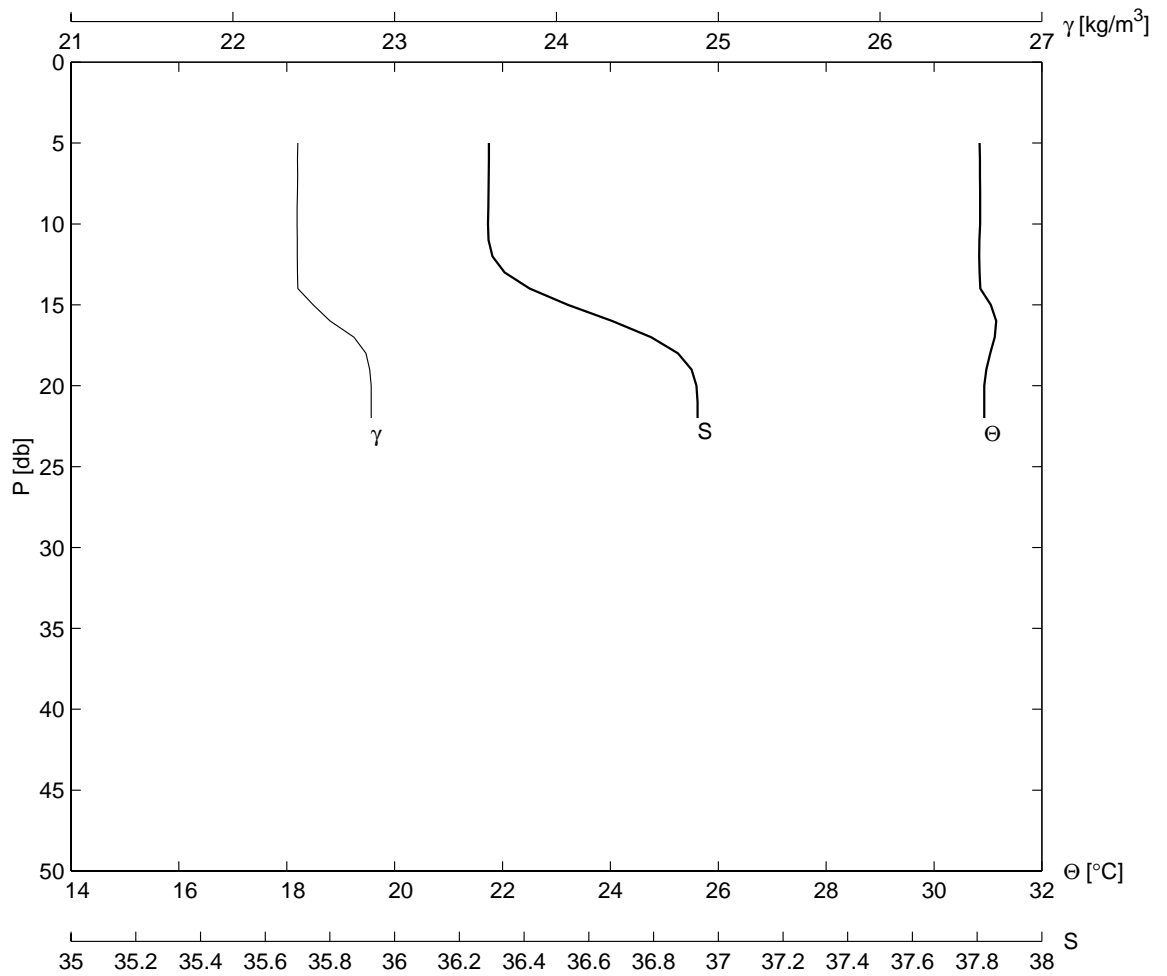
ESTACION	LANCE	LATITUD	LONGITUD	DD	MM	AA	H[UT]		
G02	58	31 2.0	114 43.6	10	8	2000	1035		
PROFTOT	TEMSUP	SALSUP	TEBUHU	TEBUSE	V-MAG	DIR	NUBES	BAROM	
[m]	[°C]	[ups]	[°C]	[°C]	[m/s]	[AZM]	[1/8]	[bar]	
20.2	30.9	35.83	28.0	30.5	51.4	999	9	1009.0	
PR	Θ	SA	γ	OX	PR	Θ	SA	γ	OX
[db]	[°C]		[kg/m <sup>3</sup> ]	[ml/l]	[db]	[°C]		[kg/m <sup>3</sup> ]	[ml/l]
2.0	30.458	35.871	22.221	99.900	8.0	30.438	35.871	22.228	99.900
3.0	30.444	35.869	22.225	99.900	9.0	30.421	35.875	22.238	99.900
4.0	30.446	35.870	22.225	99.900	10.0	30.387	35.881	22.254	99.900
5.0	30.447	35.870	22.225	99.900	15.0	30.244	35.957	22.360	99.900
6.0	30.446	35.870	22.225	99.900	20.0	30.237	35.958	22.363	99.900
7.0	30.442	35.870	22.227	99.900	20.0	30.237	35.958	22.363	99.900



ESTACION	LANCE	LATITUD	LONGITUD	DD	MM	AA	H[UT]		
G03	59	31 4.0	114 39.7	10	8	2000	1113		
PROFTOT	TEMSUP	SALSUP	TEBUHU	TEBUSE	V-MAG	DIR	NUBES	BAROM	
[m]	[°C]	[ups]	[°C]	[°C]	[m/s]	[AZM]	[1/8]	[bar]	
21.6	30.9	35.94	28.0	31.0	0.8	135	9	1006.0	
PR	Θ	SA	γ	OX	PR	Θ	SA	γ	OX
[db]	[°C]		[kg/m <sup>3</sup> ]	[ml/l]	[db]	[°C]		[kg/m <sup>3</sup> ]	[ml/l]
6.0	30.679	35.980	22.227	99.900	10.0	30.683	35.985	22.229	99.900
7.0	30.679	35.980	22.227	99.900	15.0	30.743	36.487	22.584	99.900
8.0	30.677	35.978	22.226	99.900	20.0	30.775	36.587	22.648	99.900
9.0	30.676	35.981	22.229	99.900	21.0	30.776	36.588	22.649	99.900

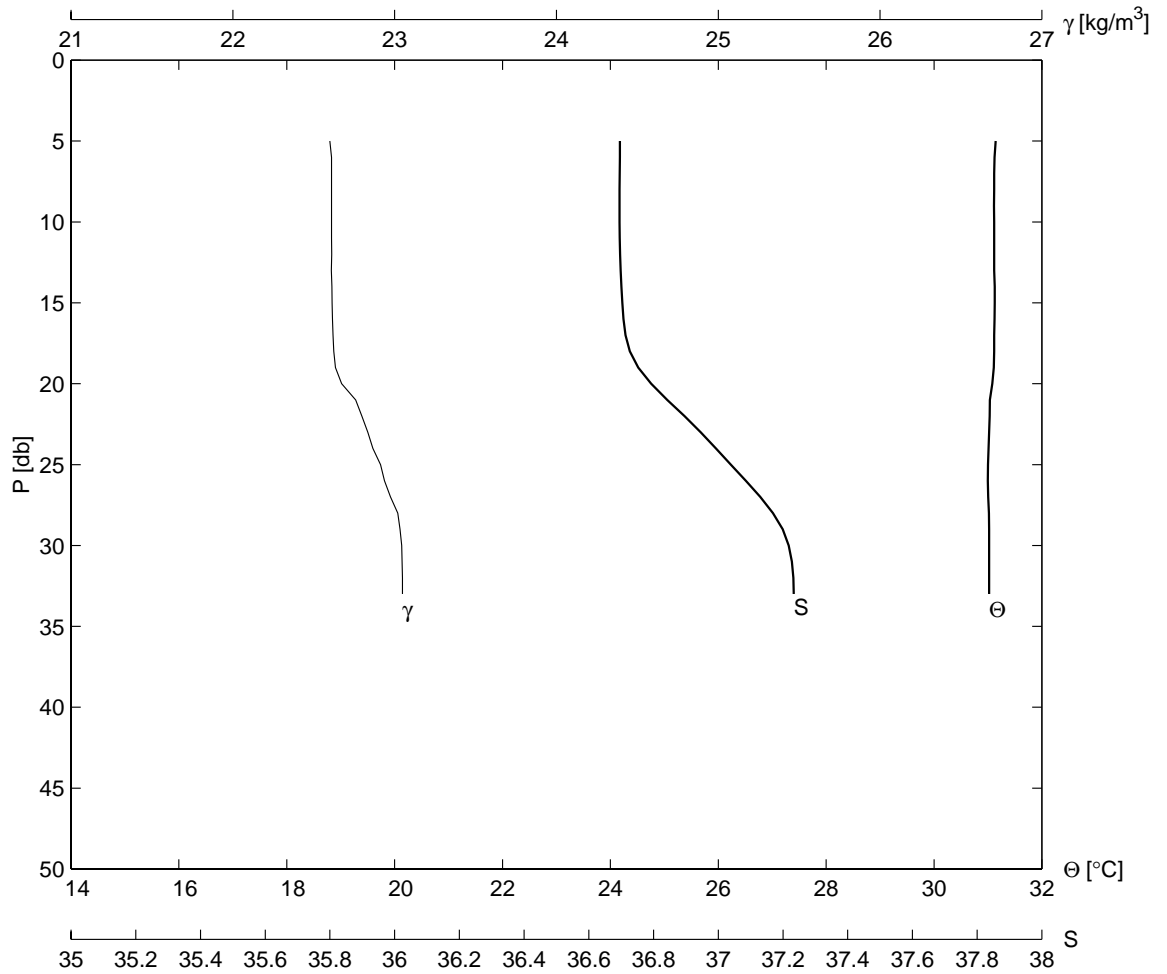


ESTACION	LANCE	LATITUD		LONGITUD		DD	MM	AA	H[UT]
G04	60	31	5.1	114	37.3	10	8	2000	1139
PROFTOT	TEMSUP	SALSUP	TEBUHU	TEBUSE	V-MAG	DIR	NUBES	BAROM	
[m]	[°C]	[ups]	[°C]	[°C]	[m/s]	[AZM]	[1/8]	[bar]	
22.0	31.1	36.24	28.0	31.0	51.4	999	9	99.9	
PR	Θ	SA	γ	OX	PR	Θ	SA	γ	OX
[db]	[°C]		[kg/m <sup>3</sup> ]	[ml/l]	[db]	[°C]		[kg/m <sup>3</sup> ]	[ml/l]
5.0	30.846	36.292	22.402	99.900	9.0	30.856	36.290	22.397	99.900
6.0	30.850	36.291	22.400	99.900	10.0	30.857	36.290	22.397	99.900
7.0	30.852	36.291	22.400	99.900	15.0	31.054	36.514	22.496	99.900
8.0	30.854	36.291	22.399	99.900	20.0	30.930	36.936	22.855	99.900
22.0	30.930	36.935	22.855	99.900					

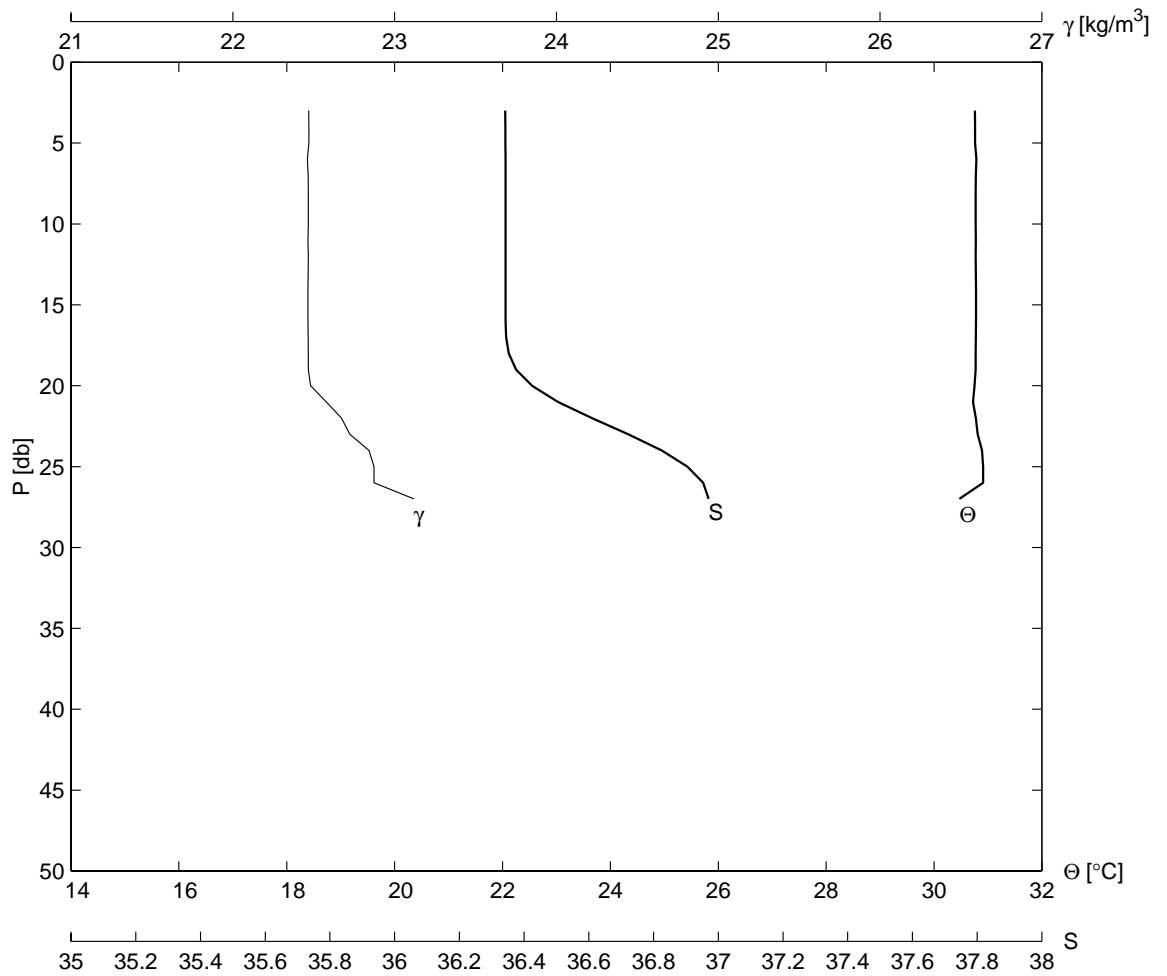




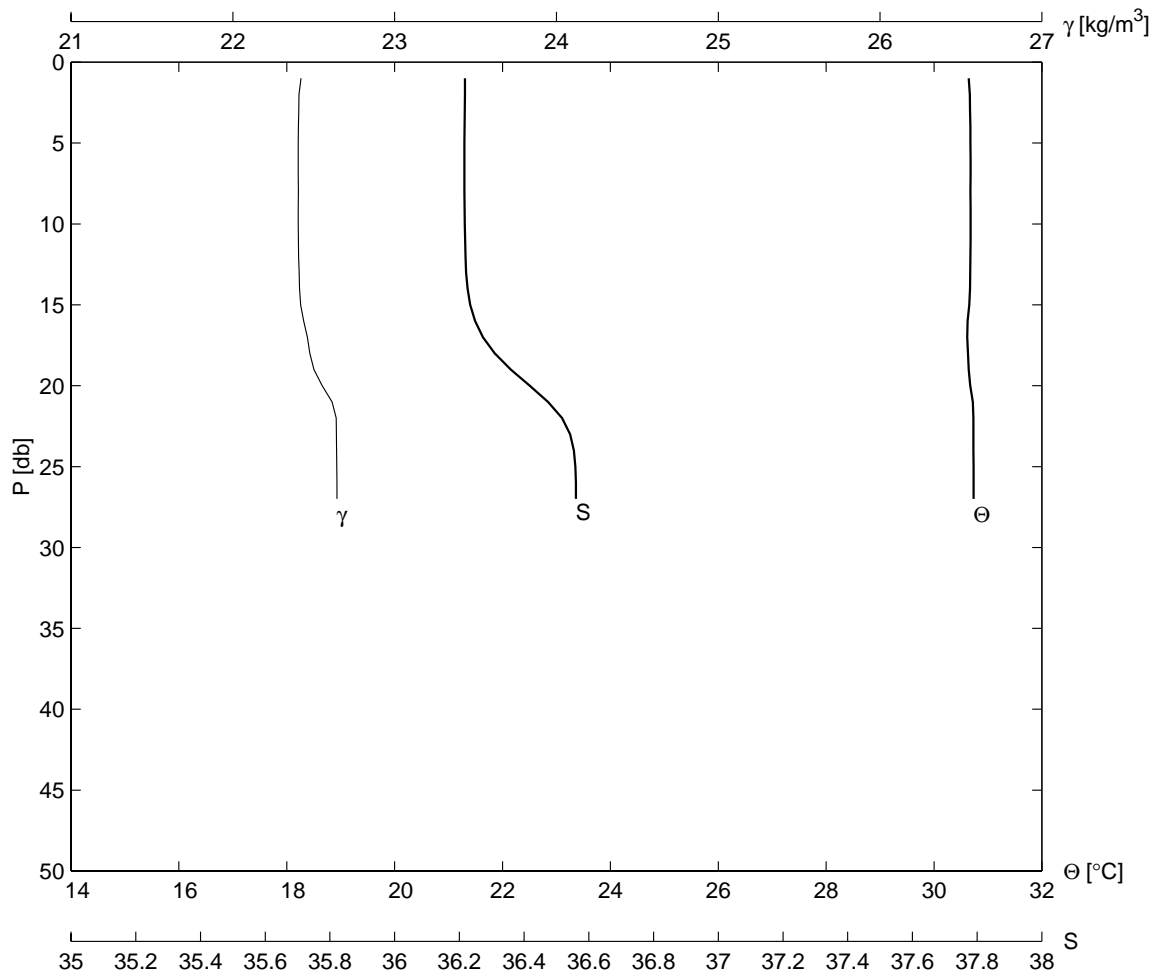
ESTACION	LANCE	LATITUD		LONGITUD		DD	MM	AA	H[UT]
G05	61	31	6.3	114	34.9	10	8	2000	1206
PROFTOT	TEMSUP	SALSUP	TEBUHU	TEBUSE	V-MAG	DIR	NUBES	BAROM	
[m]	[°C]	[ups]	[°C]	[°C]	[m/s]	[AZM]	[1/8]	[bar]	
33.4	31.4	36.67	28.0	31.2	2.1	135	9	1006.0	
PR	Θ	SA	γ	OX	PR	Θ	SA	γ	OX
[db]	[°C]		[kg/m <sup>3</sup> ]	[ml/l]	[db]	[°C]		[kg/m <sup>3</sup> ]	[ml/l]
5.0	31.143	36.694	22.599	99.900	10.0	31.115	36.694	22.610	99.900
6.0	31.124	36.699	22.610	99.900	15.0	31.125	36.703	22.613	99.900
7.0	31.115	36.694	22.610	99.900	20.0	31.081	36.762	22.672	99.900
8.0	31.115	36.695	22.610	99.900	25.0	31.002	37.046	22.913	99.900
9.0	31.113	36.694	22.610	99.900	30.0	31.022	37.229	23.043	99.900
33.0	31.020	37.235	23.049	99.900					



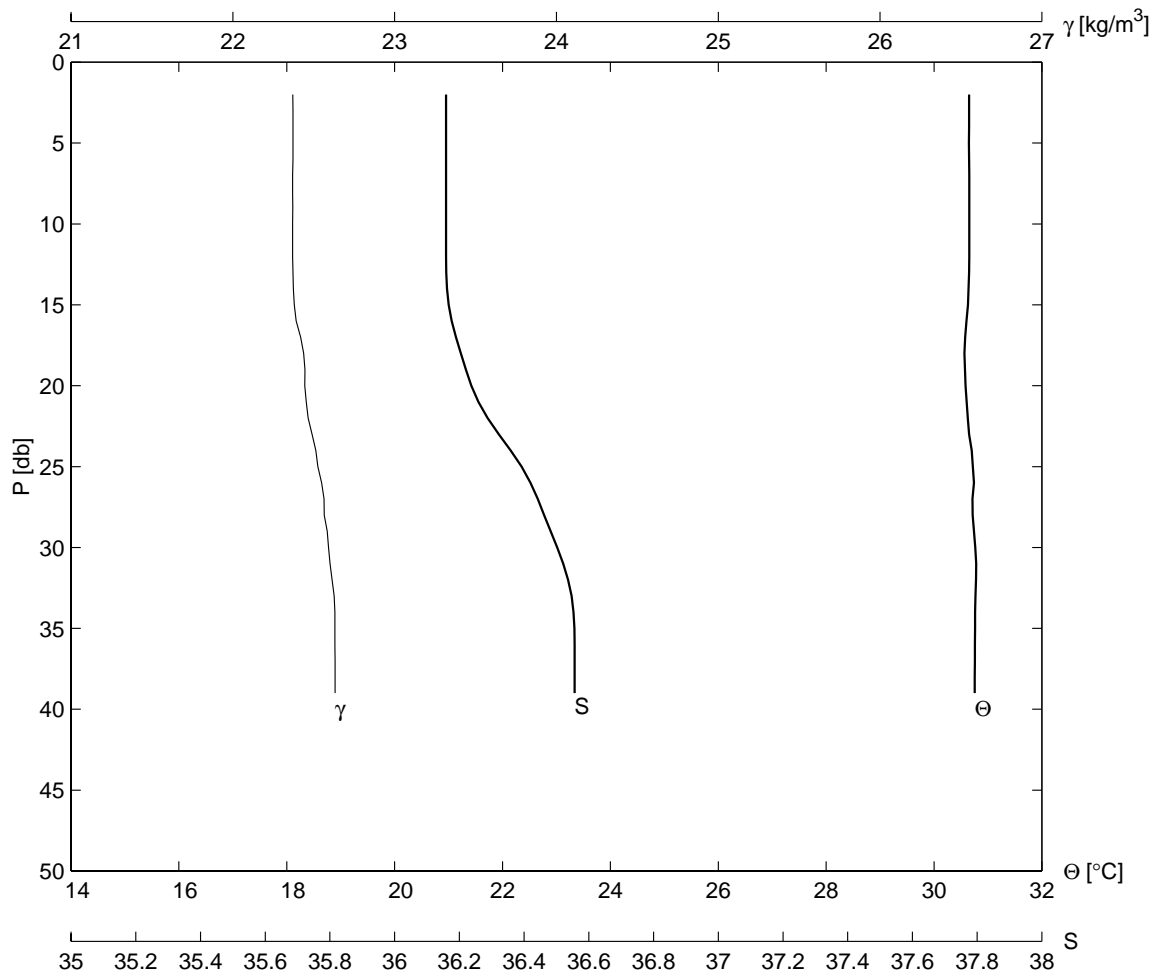
ESTACION	LANCE	LATITUD		LONGITUD		DD	MM	AA	H[UT]
G06	62	31	7.7	114	32.3	10	8	2000	1234
PROFTOT	TEMSUP	SALSUP	TEBUHU	TEBUSE	V-MAG	DIR	NUBES	BAROM	
[m]	[°C]	[ups]	[°C]	[°C]	[m/s]	[AZM]	[1/8]	[bar]	
27.3	31.0	36.31	28.0	31.0	2.1	135	9	99.9	
PR	Θ	SA	γ	OX	PR	Θ	SA	γ	OX
[db]	[°C]		[kg/m <sup>3</sup> ]	[ml/l]	[db]	[°C]		[kg/m <sup>3</sup> ]	[ml/l]
3.0	30.758	36.339	22.468	99.900	9.0	30.773	36.343	22.466	99.900
4.0	30.761	36.343	22.470	99.900	10.0	30.773	36.343	22.466	99.900
5.0	30.761	36.343	22.470	99.900	15.0	30.778	36.342	22.464	99.900
6.0	30.785	36.342	22.461	99.900	20.0	30.751	36.351	22.480	99.900
7.0	30.774	36.343	22.466	99.900	25.0	30.912	36.950	22.872	99.900
8.0	30.773	36.343	22.466	99.900	27.0	30.470	37.072	23.119	99.900



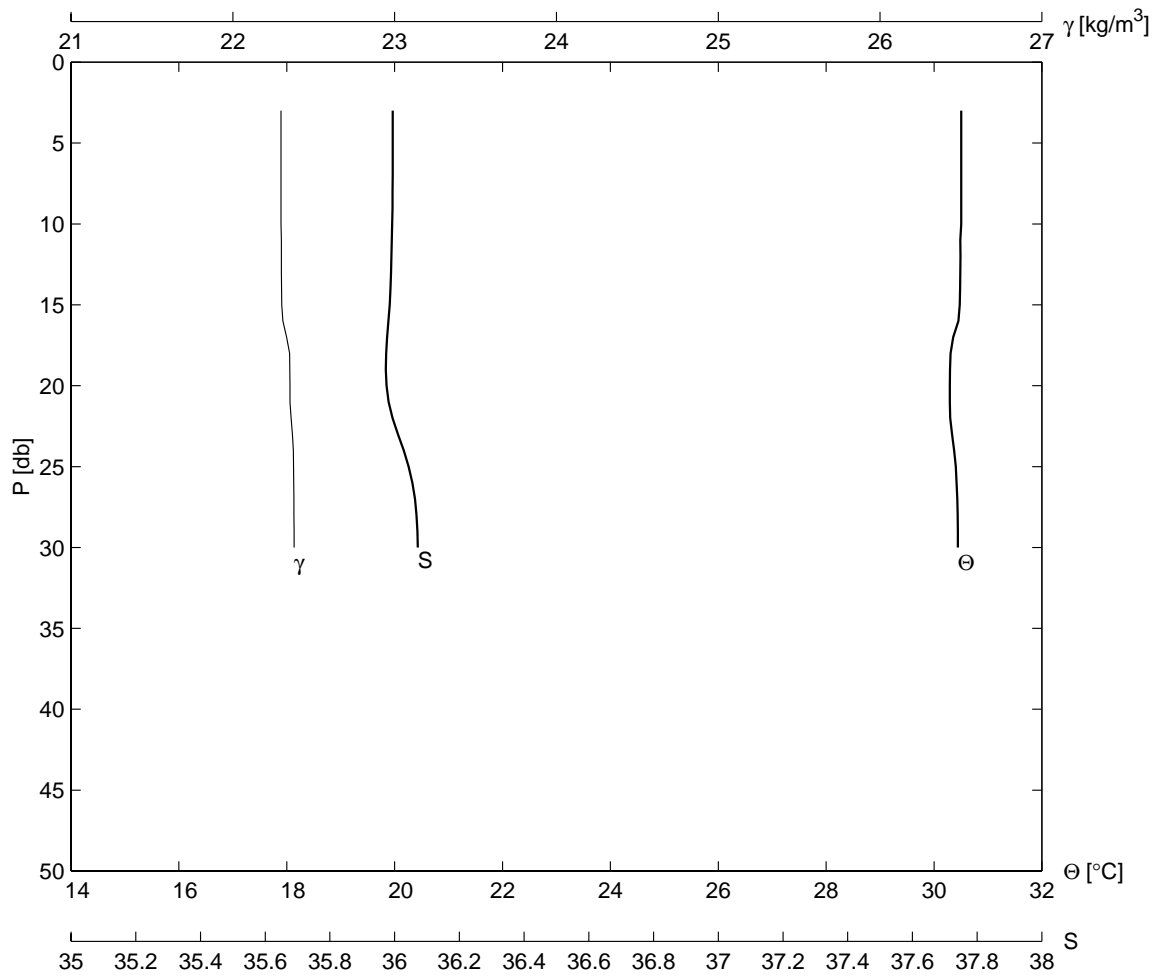
ESTACION	LANCE	LATITUD	LONGITUD	DD	MM	AA	H[UT]		
G07	63	31 9.1	114 30.0	10	8	2000	1301		
PROFTOT	TEMSUP	SALSUP	TEBUHU	TEBUSE	V-MAG	DIR	NUBES	BAROM	
[m]	[°C]	[ups]	[°C]	[°C]	[m/s]	[AZM]	[1/8]	[bar]	
27.6	30.9	36.19	28.1	30.7	1.8	135	9	99.9	
PR	Θ	SA	γ	OX	PR	Θ	SA	γ	OX
[db]	[°C]		[kg/m <sup>3</sup> ]	[ml/l]	[db]	[°C]		[kg/m <sup>3</sup> ]	[ml/l]
2.0	30.665	36.216	22.408	99.900	8.0	30.676	36.216	22.405	99.900
3.0	30.669	36.216	22.407	99.900	9.0	30.677	36.216	22.404	99.900
4.0	30.674	36.215	22.405	99.900	10.0	30.678	36.216	22.404	99.900
5.0	30.676	36.215	22.404	99.900	15.0	30.652	36.225	22.419	99.900
6.0	30.677	36.215	22.404	99.900	20.0	30.670	36.410	22.552	99.900
7.0	30.676	36.215	22.404	99.900	25.0	30.733	36.559	22.642	99.900
27.0	30.734	36.561	22.644	99.900					



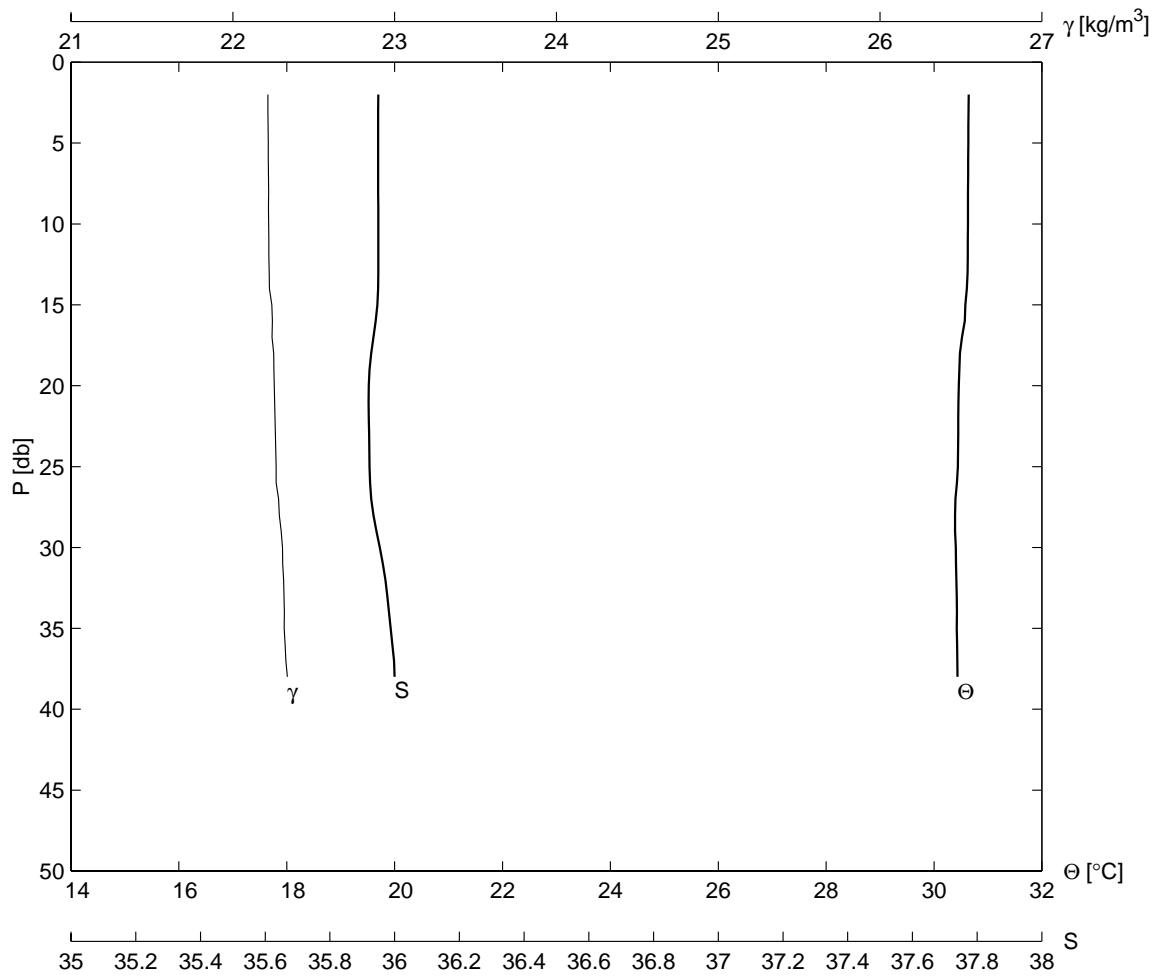
ESTACION	LANCE	LATITUD	LONGITUD	DD	MM	AA	H[UT]		
G08	64	31 10.5	114 27.3	10	8	2000	1329		
PROFTOT	TEMSUP	SALSUP	TEBUHU	TEBUSE	V-MAG	DIR	NUBES	BAROM	
[m]	[°C]	[ups]	[°C]	[°C]	[m/s]	[AZM]	[1/8]	[bar]	
40.0	30.9	36.13	28.0	30.4	51.4	999	9	99.9	
PR	Θ	SA	γ	OX	PR	Θ	SA	γ	OX
[db]	[°C]		[kg/m <sup>3</sup> ]	[ml/l]	[db]	[°C]		[kg/m <sup>3</sup> ]	[ml/l]
2.0	30.650	36.158	22.370	99.900	9.0	30.653	36.159	22.370	99.900
3.0	30.649	36.159	22.371	99.900	10.0	30.654	36.158	22.369	99.900
4.0	30.649	36.160	22.372	99.900	15.0	30.628	36.161	22.380	99.900
5.0	30.647	36.159	22.372	99.900	20.0	30.586	36.227	22.445	99.900
6.0	30.649	36.160	22.372	99.900	25.0	30.719	36.397	22.525	99.900
7.0	30.654	36.159	22.370	99.900	30.0	30.765	36.507	22.592	99.900
8.0	30.653	36.159	22.370	99.900	39.0	30.756	36.556	22.632	99.900



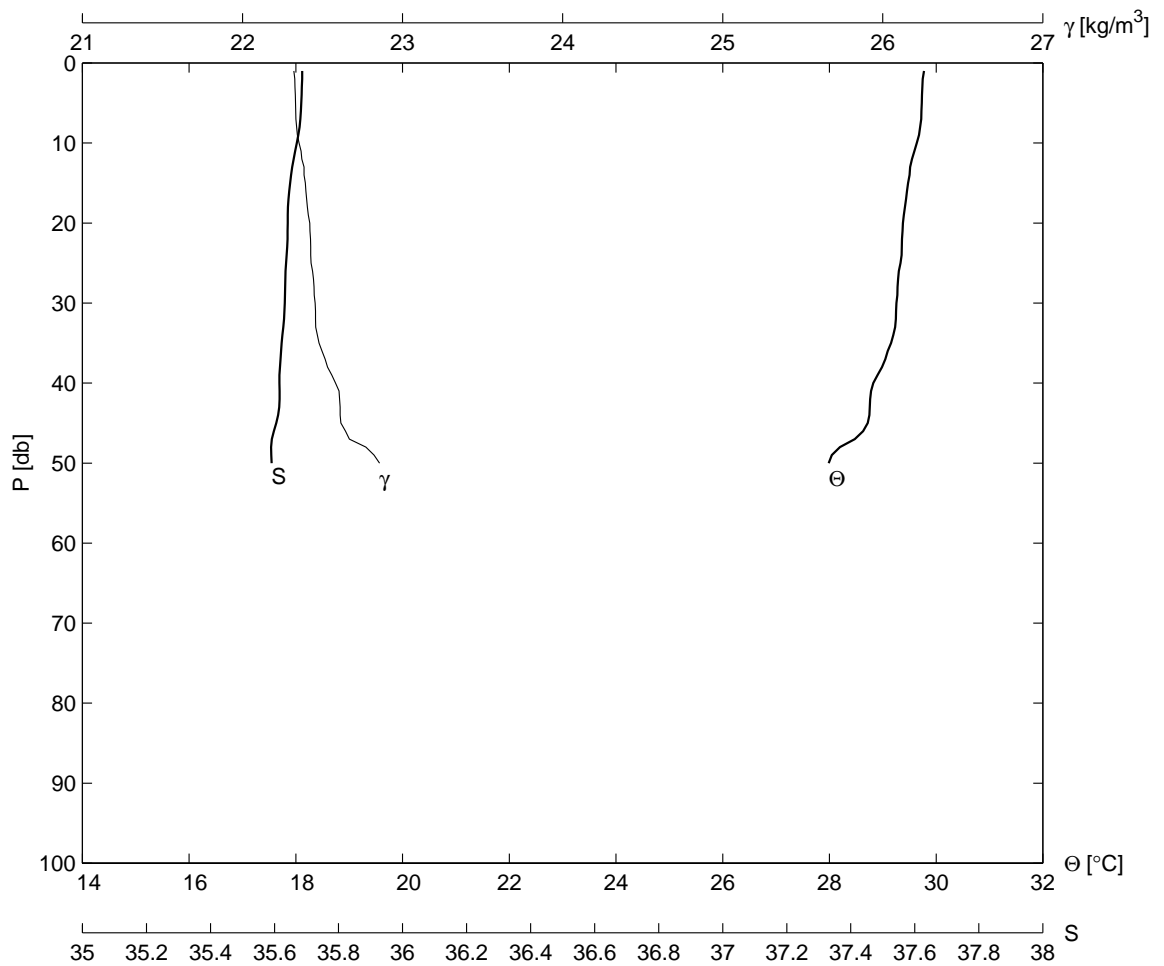
ESTACION	LANCE	LATITUD	LONGITUD	DD	MM	AA	H[UT]		
G09	65	31 11.9	114 24.5	10	8	2000	1359		
PROFTOT	TEMSUP	SALSUP	TEBUHU	TEBUSE	V-MAG	DIR	NUBES	BAROM	
[m]	[°C]	[ups]	[°C]	[°C]	[m/s]	[AZM]	[1/8]	[bar]	
30.0	30.8	35.96	28.0	32.0	1.5	135	9	99.9	
PR	Θ	SA	γ	OX	PR	Θ	SA	γ	OX
[db]	[°C]		[kg/m <sup>3</sup> ]	[ml/l]	[db]	[°C]		[kg/m <sup>3</sup> ]	[ml/l]
3.0	30.505	35.994	22.298	99.900	9.0	30.506	35.994	22.297	99.900
4.0	30.505	35.994	22.298	99.900	10.0	30.506	35.994	22.298	99.900
5.0	30.506	35.994	22.297	99.900	15.0	30.475	35.987	22.303	99.900
6.0	30.505	35.994	22.298	99.900	20.0	30.294	35.971	22.353	99.900
7.0	30.504	35.994	22.298	99.900	25.0	30.405	36.051	22.375	99.900
8.0	30.506	35.994	22.297	99.900	30.0	30.444	36.074	22.379	99.900
30.0	30.444	36.074	22.379	99.900					



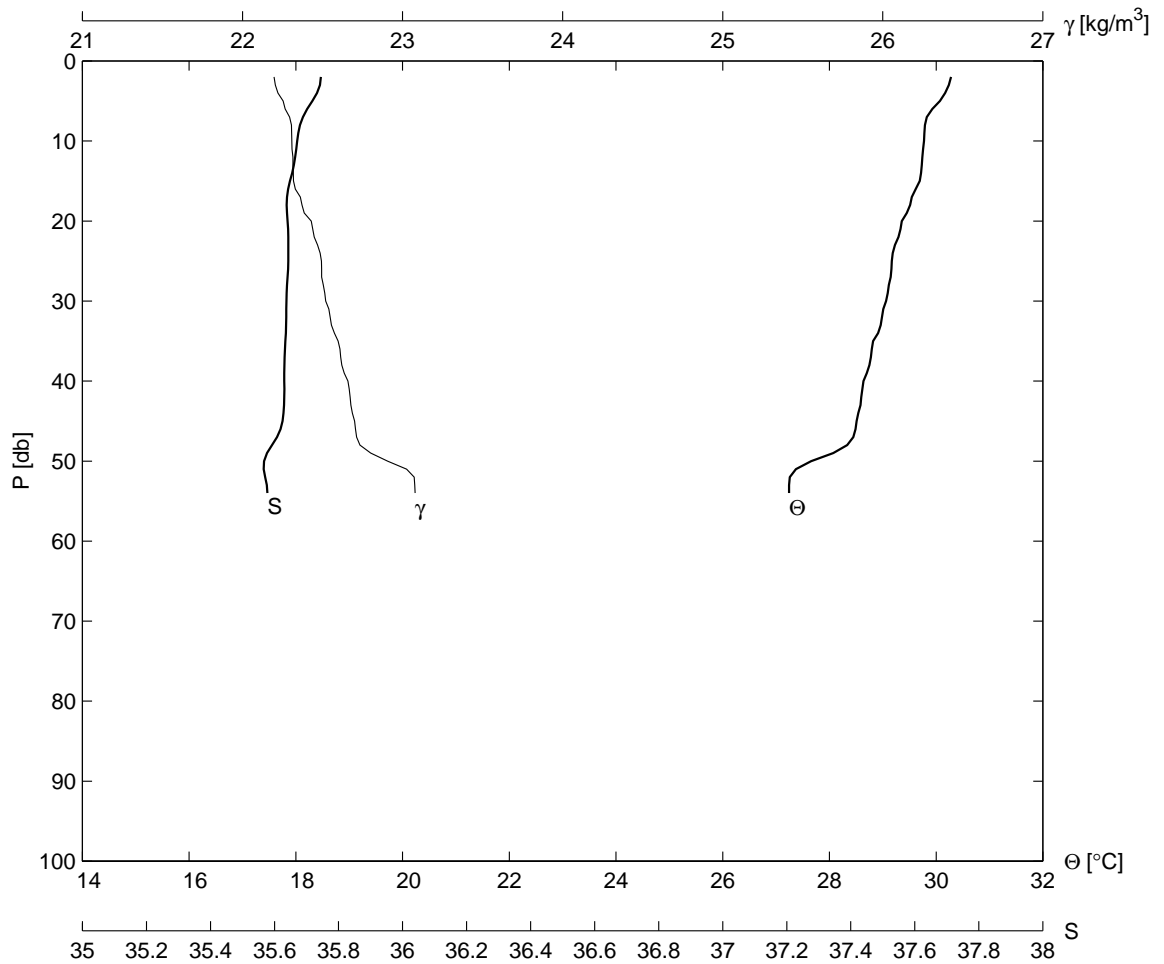
ESTACION	LANCE	LATITUD	LONGITUD	DD	MM	AA	H[UT]		
G10	66	31 13.9	114 20.0	10	8	2000	1441		
PROFTOT	TEMSUP	SALSUP	TEBUHU	TEBUSE	V-MAG	DIR	NUBES	BAROM	
[m]	[°C]	[ups]	[°C]	[°C]	[m/s]	[AZM]	[1/8]	[bar]	
38.2	30.9	35.92	27.8	32.0	1.3	135	9	99.9	
PR	Θ	SA	γ	OX	PR	Θ	SA	γ	OX
[db]	[°C]		[kg/m <sup>3</sup> ]	[ml/l]	[db]	[°C]		[kg/m <sup>3</sup> ]	[ml/l]
2.0	30.642	35.949	22.217	99.900	9.0	30.630	35.949	22.221	99.900
3.0	30.641	35.949	22.217	99.900	10.0	30.628	35.950	22.222	99.900
4.0	30.638	35.949	22.218	99.900	15.0	30.580	35.953	22.241	99.900
5.0	30.636	35.949	22.218	99.900	20.0	30.461	35.918	22.256	99.900
6.0	30.634	35.949	22.219	99.900	25.0	30.441	35.925	22.268	99.900
7.0	30.633	35.949	22.220	99.900	30.0	30.405	35.960	22.307	99.900
8.0	30.629	35.949	22.221	99.900	38.0	30.435	36.014	22.337	99.900



ESTACION	LANCE	LATITUD	LONGITUD	DD	MM	AA	H[UT]		
G11	67	31 16.6	114 15.2	10	8	2000	1531		
PROFTOT	TEMSUP	SALSUP	TEBUHU	TEBUSE	V-MAG	DIR	NUBES	BAROM	
[m]	[°C]	[ups]	[°C]	[°C]	[m/s]	[AZM]	[1/8]	[bar]	
50.4	30.1	35.65	99.9	99.9	0.0	999	9	1006.0	
PR	Θ	SA	γ	OX	PR	Θ	SA	γ	OX
[db]	[°C]		[kg/m <sup>3</sup> ]	[ml/l]	[db]	[°C]		[kg/m <sup>3</sup> ]	[ml/l]
2.0	29.749	35.686	22.326	99.900	10.0	29.636	35.670	22.353	99.900
3.0	29.741	35.685	22.328	99.900	15.0	29.474	35.649	22.392	99.900
4.0	29.735	35.684	22.329	99.900	20.0	29.375	35.642	22.420	99.900
5.0	29.731	35.685	22.331	99.900	25.0	29.333	35.634	22.428	99.900
6.0	29.724	35.683	22.332	99.900	30.0	29.255	35.632	22.453	99.900
7.0	29.721	35.682	22.333	99.900	40.0	28.823	35.609	22.581	99.900
8.0	29.699	35.680	22.339	99.900	50.0	27.986	35.608	22.856	99.900
9.0	29.680	35.677	22.343	99.900	50.0	27.986	35.608	22.856	99.900

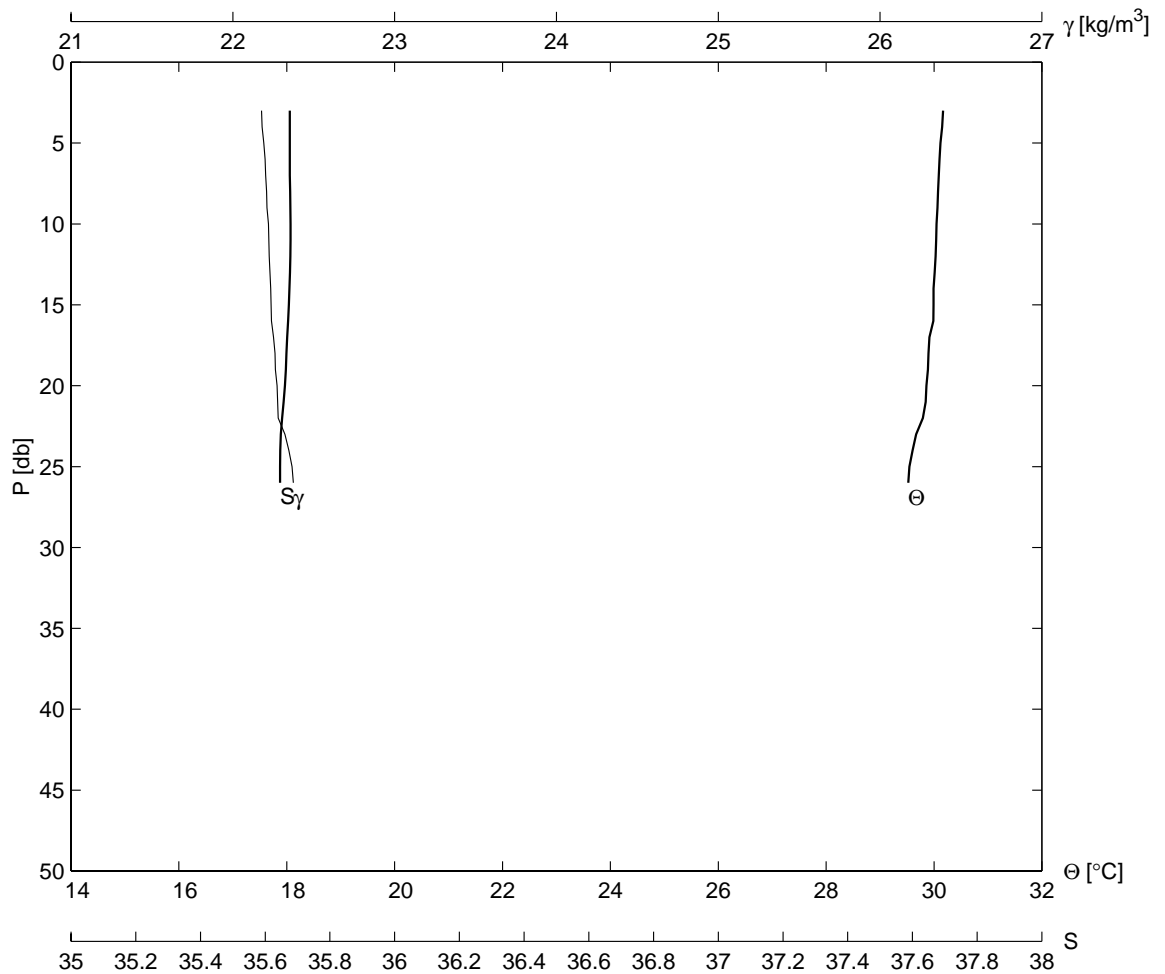


ESTACION	LANCE	LATITUD	LONGITUD	DD	MM	AA	H[UT]		
G12	68	31 19.0	114 10.1	10	8	2000	1622		
PROFTOT	TEMSUP	SALSUP	TEBUHU	TEBUSE	V-MAG	DIR	NUBES	BAROM	
[m]	[°C]	[ups]	[°C]	[°C]	[m/s]	[AZM]	[1/8]	[bar]	
55.0	30.6	35.73	27.0	33.0	0.0	999	9	1005.0	
PR	Θ	SA	γ	OX	PR	Θ	SA	γ	OX
[db]	[°C]		[kg/m <sup>3</sup> ]	[ml/l]	[db]	[°C]		[kg/m <sup>3</sup> ]	[ml/l]
2.0	30.280	35.756	22.197	99.900	10.0	29.771	35.672	22.308	99.900
3.0	30.238	35.748	22.205	99.900	15.0	29.694	35.650	22.318	99.900
4.0	30.168	35.737	22.221	99.900	20.0	29.356	35.645	22.429	99.900
5.0	30.070	35.735	22.253	99.900	25.0	29.169	35.646	22.493	99.900
6.0	29.928	35.687	22.266	99.900	30.0	29.060	35.633	22.519	99.900
7.0	29.825	35.677	22.294	99.900	40.0	28.640	35.632	22.659	99.900
8.0	29.789	35.676	22.305	99.900	50.0	27.655	35.532	22.907	99.900
9.0	29.780	35.675	22.307	99.900	54.0	27.245	35.582	23.078	99.900



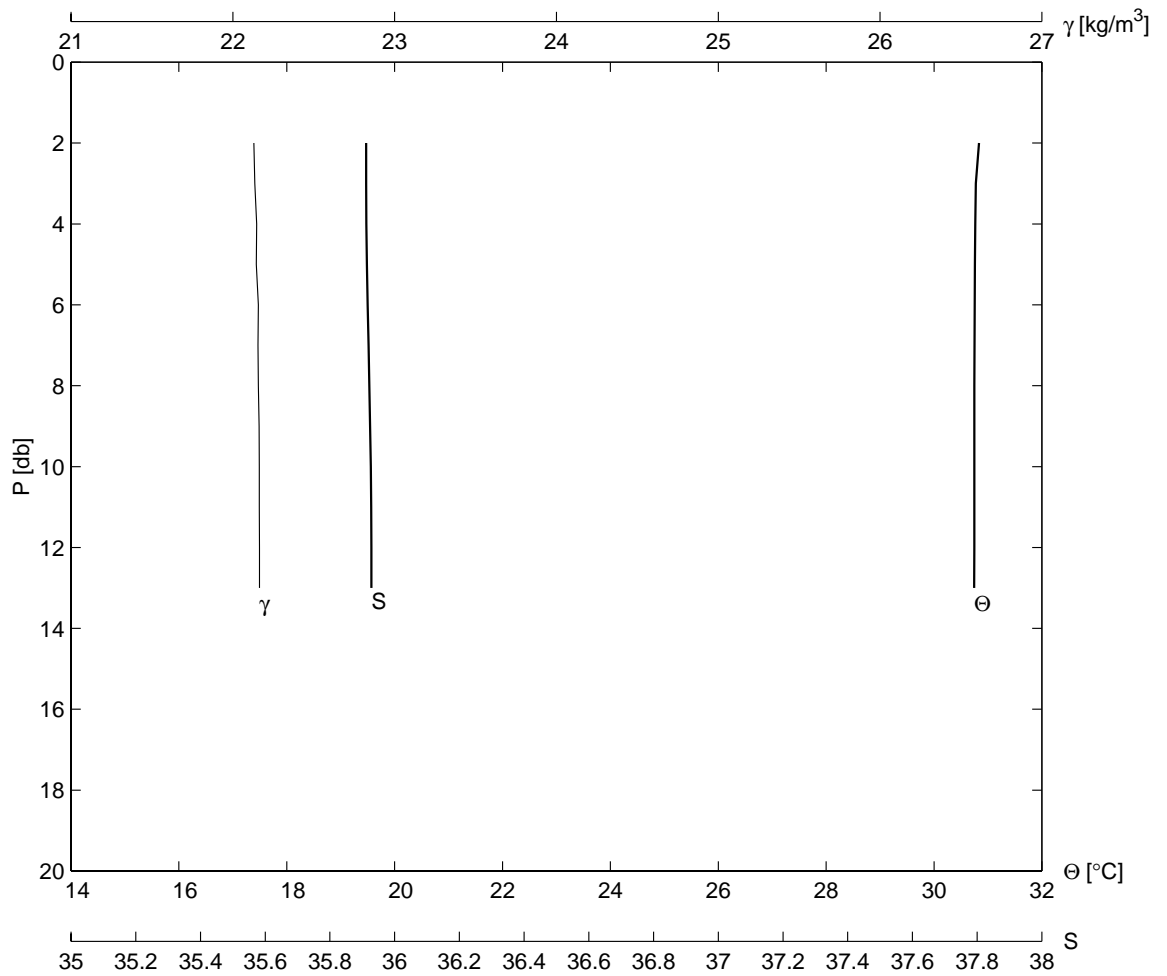


ESTACION	LANCE	LATITUD	LONGITUD	DD	MM	AA	H[UT]		
G13	69	31 22.0	114 4.5	10	8	2000	1717		
PROFTOT	TEMSUP	SALSUP	TEBUHU	TEBUSE	V-MAG	DIR	NUBES	BAROM	
[m]	[°C]	[ups]	[°C]	[°C]	[m/s]	[AZM]	[1/8]	[bar]	
26.5	30.4	35.65	28.0	35.0	0.0	999	9	1004.0	
PR	Θ	SA	γ	OX	PR	Θ	SA	γ	OX
[db]	[°C]		[kg/m <sup>3</sup> ]	[ml/l]	[db]	[°C]		[kg/m <sup>3</sup> ]	[ml/l]
3.0	30.167	35.677	22.177	99.900	9.0	30.065	35.677	22.211	99.900
4.0	30.150	35.675	22.181	99.900	10.0	30.048	35.681	22.220	99.900
5.0	30.119	35.675	22.192	99.900	15.0	29.990	35.676	22.237	99.900
6.0	30.101	35.676	22.199	99.900	20.0	29.859	35.666	22.274	99.900
7.0	30.088	35.675	22.203	99.900	25.0	29.544	35.646	22.366	99.900
8.0	30.073	35.676	22.209	99.900	26.0	29.524	35.648	22.374	99.900

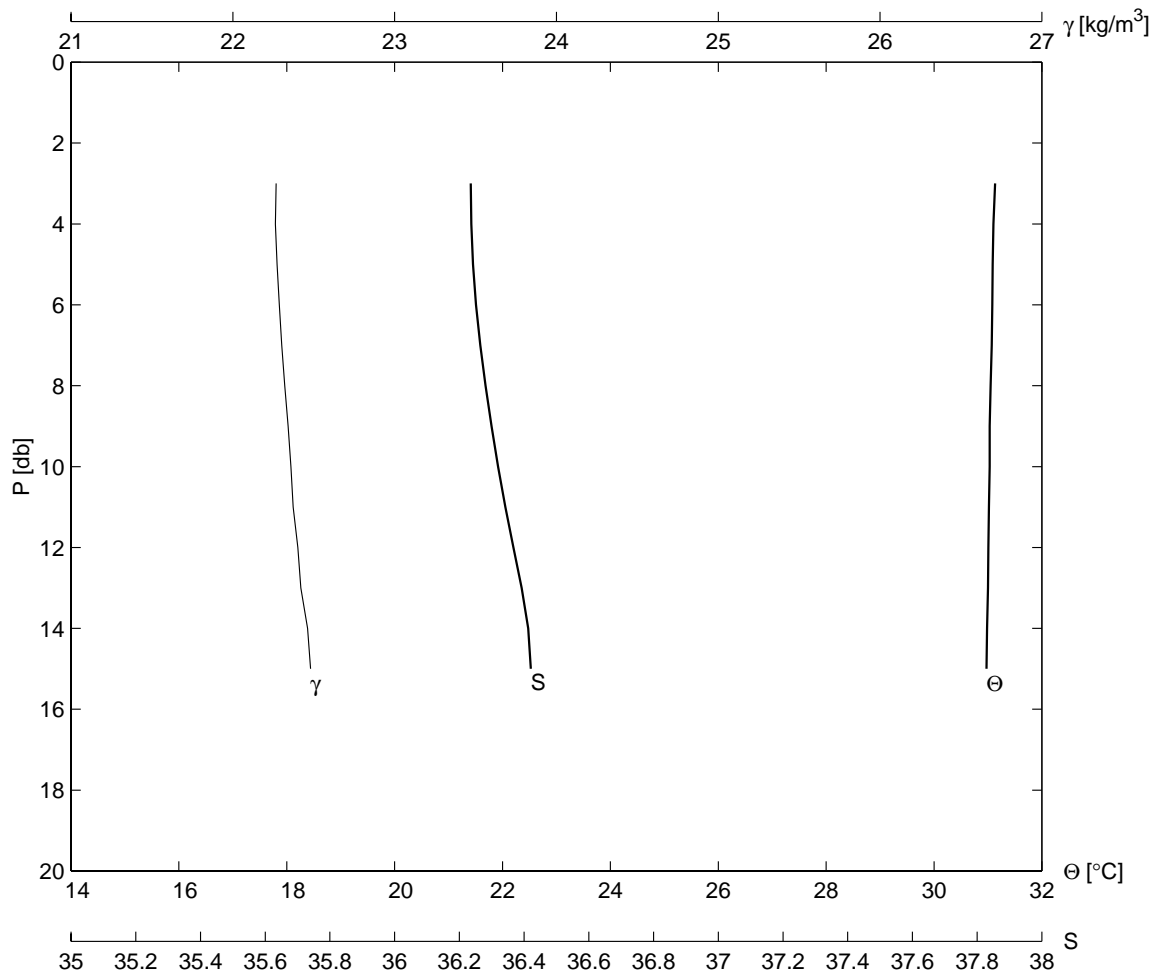


# A.70

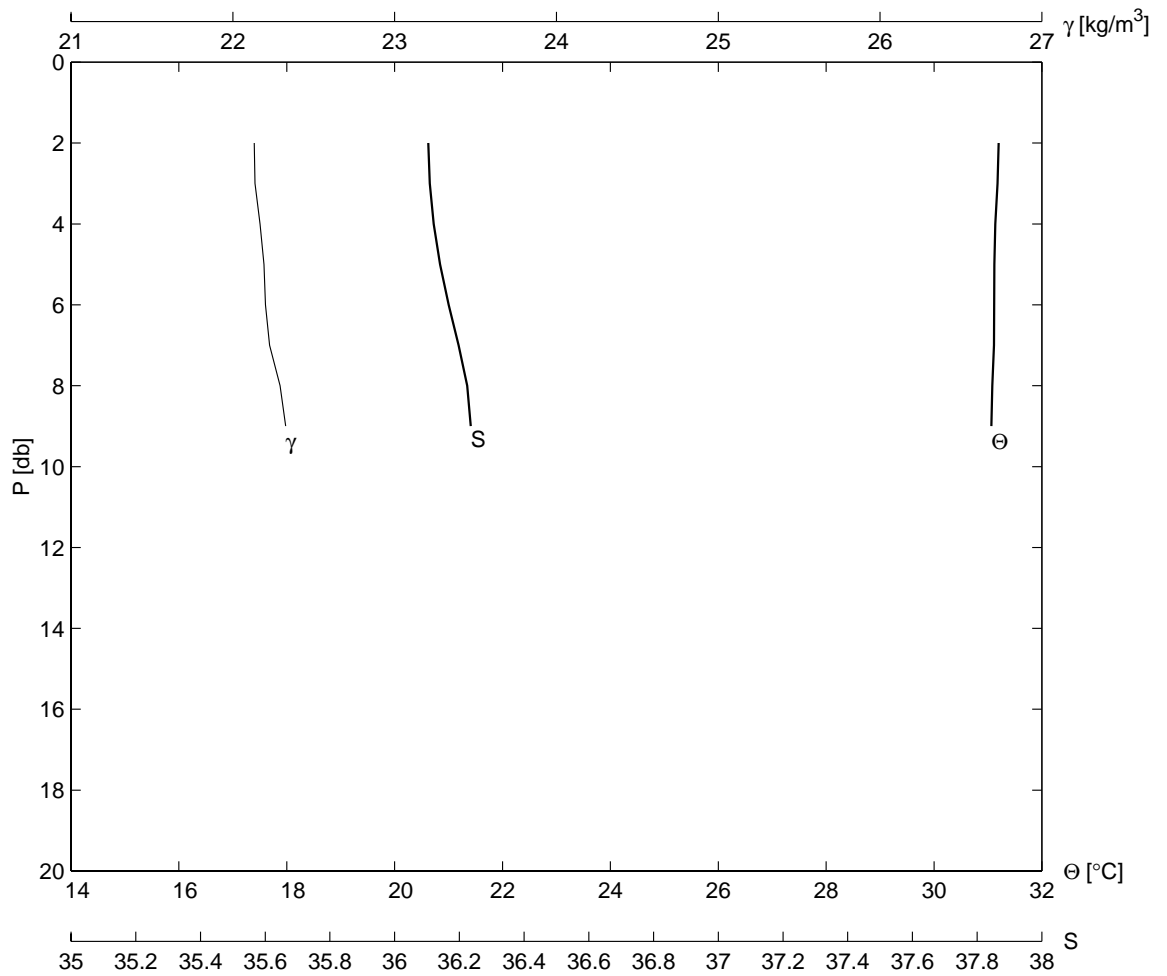
ESTACION	LANCE	LATITUD	LONGITUD	DD	MM	AA	H[UT]		
G14	70	31 25.5	114 0.0	10	8	2000	1805		
PROFTOT	TEMSUP	SALSUP	TEBUHU	TEBUSE	V-MAG	DIR	NUBES	BAROM	
[m]	[°C]	[ups]	[°C]	[°C]	[m/s]	[AZM]	[1/8]	[bar]	
13.0	31.1	35.90	28.0	35.0	0.0	999	9	1005.0	
PR	Θ	SA	γ	OX	PR	Θ	SA	γ	OX
[db]	[°C]		[kg/m <sup>3</sup> ]	[ml/l]	[db]	[°C]		[kg/m <sup>3</sup> ]	[ml/l]
2.0	30.833	35.922	22.130	99.900	7.0	30.749	35.918	22.156	99.900
3.0	30.777	35.904	22.136	99.900	8.0	30.748	35.920	22.158	99.900
4.0	30.766	35.915	22.148	99.900	9.0	30.747	35.925	22.162	99.900
5.0	30.757	35.908	22.145	99.900	10.0	30.748	35.928	22.164	99.900
6.0	30.753	35.923	22.158	99.900	13.0	30.744	35.928	22.165	99.900



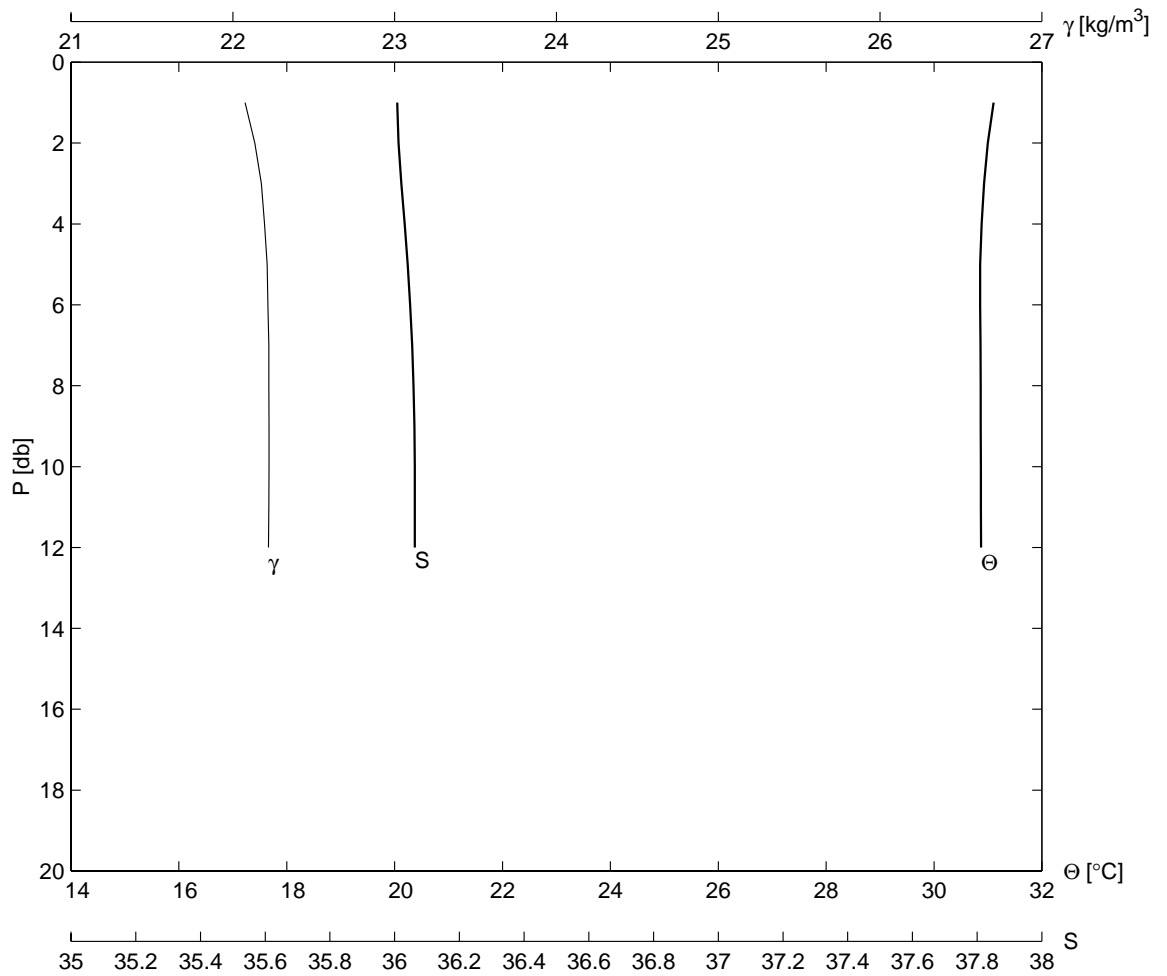
ESTACION	LANCE	LATITUD	LONGITUD	DD	MM	AA	H[UT]		
G15	71	31 28.0	113 55.8	10	8	2000	1847		
PROFTOT	TEMSUP	SALSUP	TEBUHU	TEBUSE	V-MAG	DIR	NUBES	BAROM	
[m]	[°C]	[ups]	[°C]	[°C]	[m/s]	[AZM]	[1/8]	[bar]	
15.5	31.4	36.19	27.5	34.0	0.0	999	9	1004.0	
PR	Θ	SA	γ	OX	PR	Θ	SA	γ	OX
[db]	[°C]		[kg/m <sup>3</sup> ]	[ml/l]	[db]	[°C]		[kg/m <sup>3</sup> ]	[ml/l]
3.0	31.132	36.246	22.268	99.900	8.0	31.049	36.278	22.321	99.900
4.0	31.102	36.226	22.263	99.900	9.0	31.032	36.297	22.341	99.900
5.0	31.087	36.232	22.273	99.900	10.0	31.032	36.321	22.359	99.900
6.0	31.081	36.248	22.287	99.900	15.0	30.973	36.455	22.480	99.900
7.0	31.070	36.262	22.302	99.900	15.0	30.973	36.455	22.480	99.900



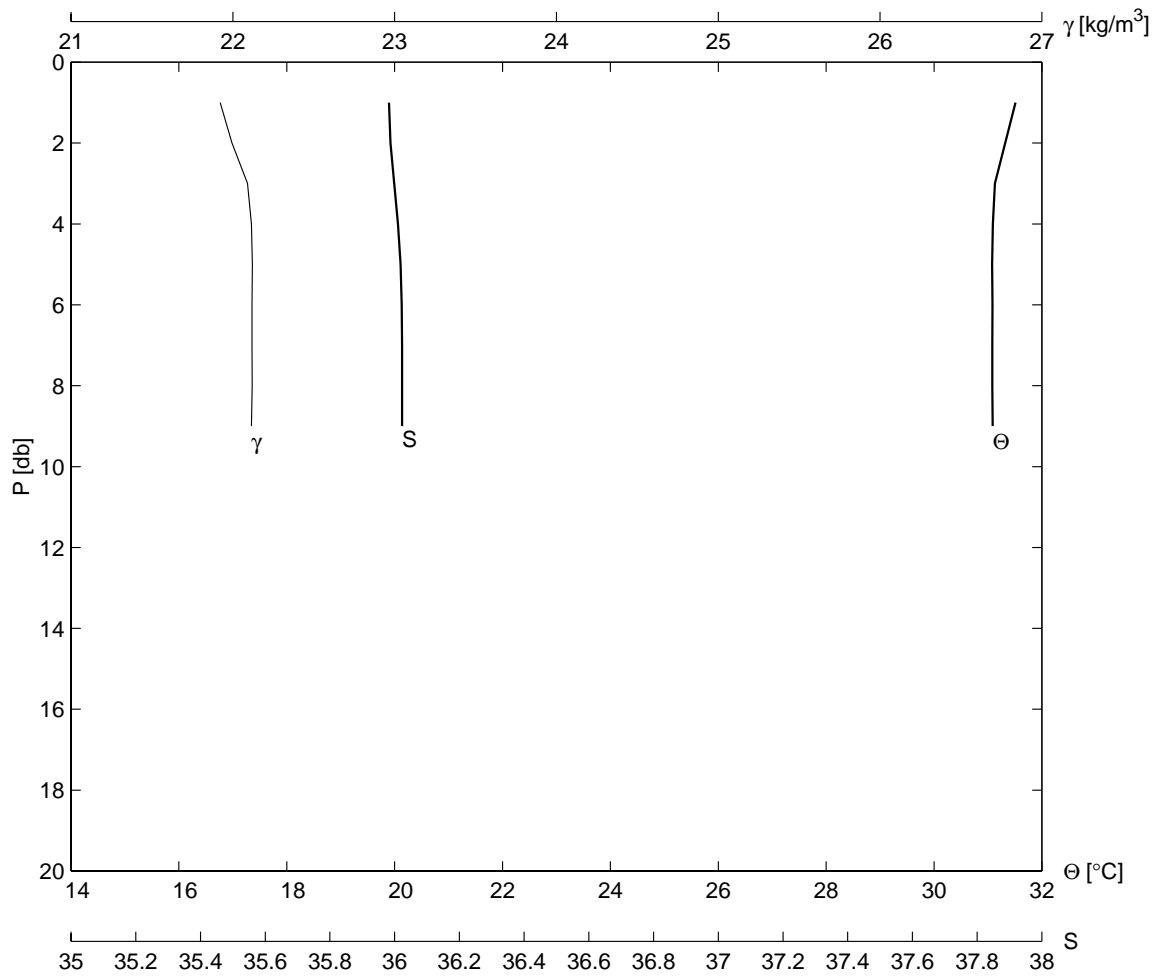
ESTACION	LANCE	LATITUD	LONGITUD	DD	MM	AA	H[UT]		
G16	72	31 30.8	113 52.6	10	8	2000	1926		
PROFTOT	TEMSUP	SALSUP	TEBUHU	TEBUSE	V-MAG	DIR	NUBES	BAROM	
[m]	[°C]	[ups]	[°C]	[°C]	[m/s]	[AZM]	[1/8]	[bar]	
9.6	31.5	36.05	26.7	31.7	0.0	999	9	1011.0	
PR	Θ	SA	γ	OX	PR	Θ	SA	γ	OX
[db]	[°C]		[kg/m <sup>3</sup> ]	[ml/l]	[db]	[°C]		[kg/m <sup>3</sup> ]	[ml/l]
2.0	31.200	36.097	22.133	99.900	6.0	31.116	36.150	22.202	99.900
3.0	31.178	36.092	22.137	99.900	7.0	31.113	36.183	22.227	99.900
4.0	31.136	36.115	22.168	99.900	8.0	31.082	36.254	22.292	99.900
5.0	31.120	36.140	22.193	99.900	9.0	31.063	36.292	22.326	99.900
9.0	31.063	36.292	22.326	99.900					



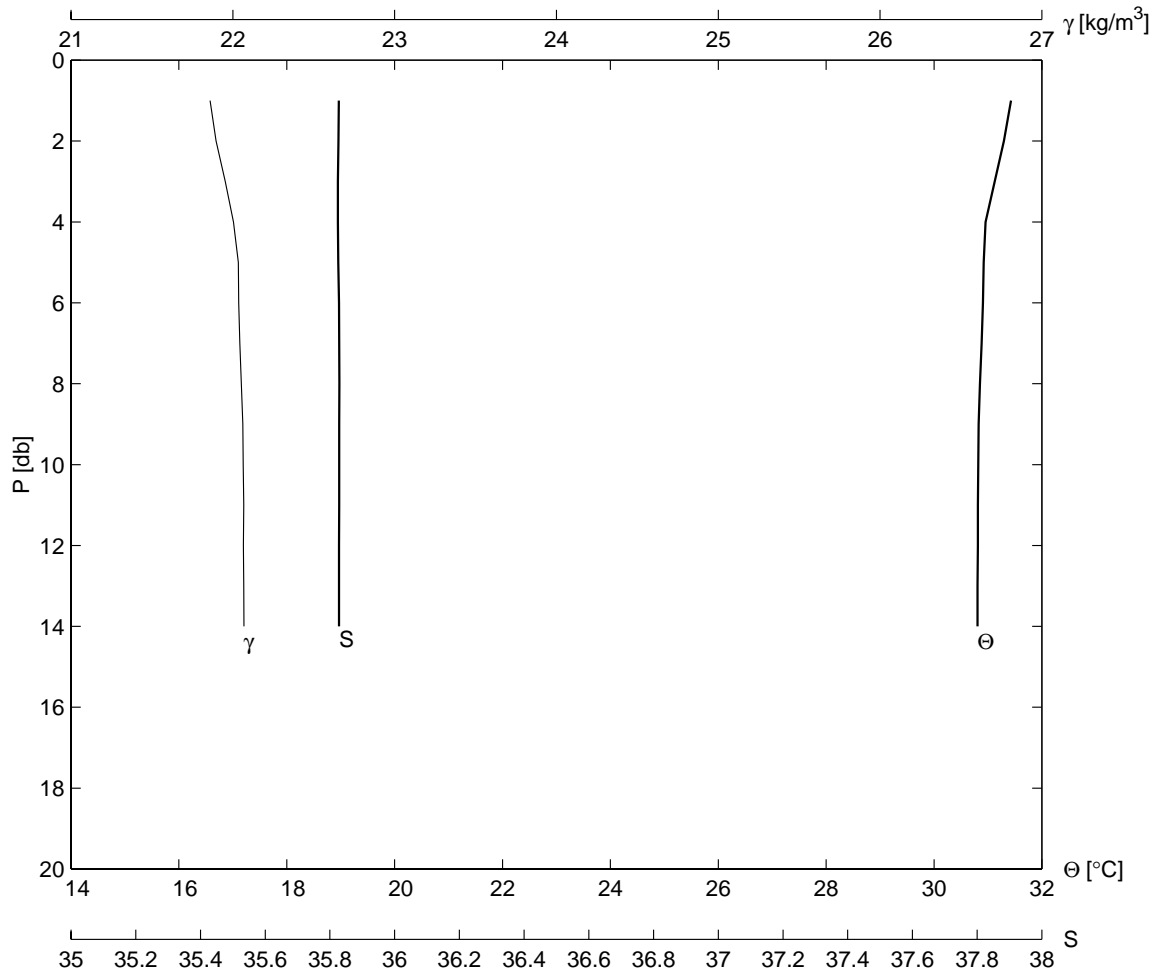
ESTACION	LANCE	LATITUD	LONGITUD	DD	MM	AA	H[UT]		
G17	73	31 29.0	113 48.5	10	8	2000	2005		
PROFTOT	TEMSUP	SALSUP	TEBUHU	TEBUSE	V-MAG	DIR	NUBES	BAROM	
[m]	[°C]	[ups]	[°C]	[°C]	[m/s]	[AZM]	[1/8]	[bar]	
12.2	31.5	35.98	27.3	31.7	0.0	999	9	1011.0	
PR	Θ	SA	γ	OX	PR	Θ	SA	γ	OX
[db]	[°C]		[kg/m <sup>3</sup> ]	[ml/l]	[db]	[°C]		[kg/m <sup>3</sup> ]	[ml/l]
2.0	30.998	36.007	22.136	99.900	7.0	30.863	36.059	22.222	99.900
3.0	30.928	36.029	22.177	99.900	8.0	30.866	36.061	22.222	99.900
4.0	30.884	36.033	22.195	99.900	9.0	30.867	36.063	22.223	99.900
5.0	30.853	36.041	22.212	99.900	10.0	30.868	36.063	22.223	99.900
6.0	30.853	36.047	22.216	99.900	12.0	30.872	36.061	22.221	99.900



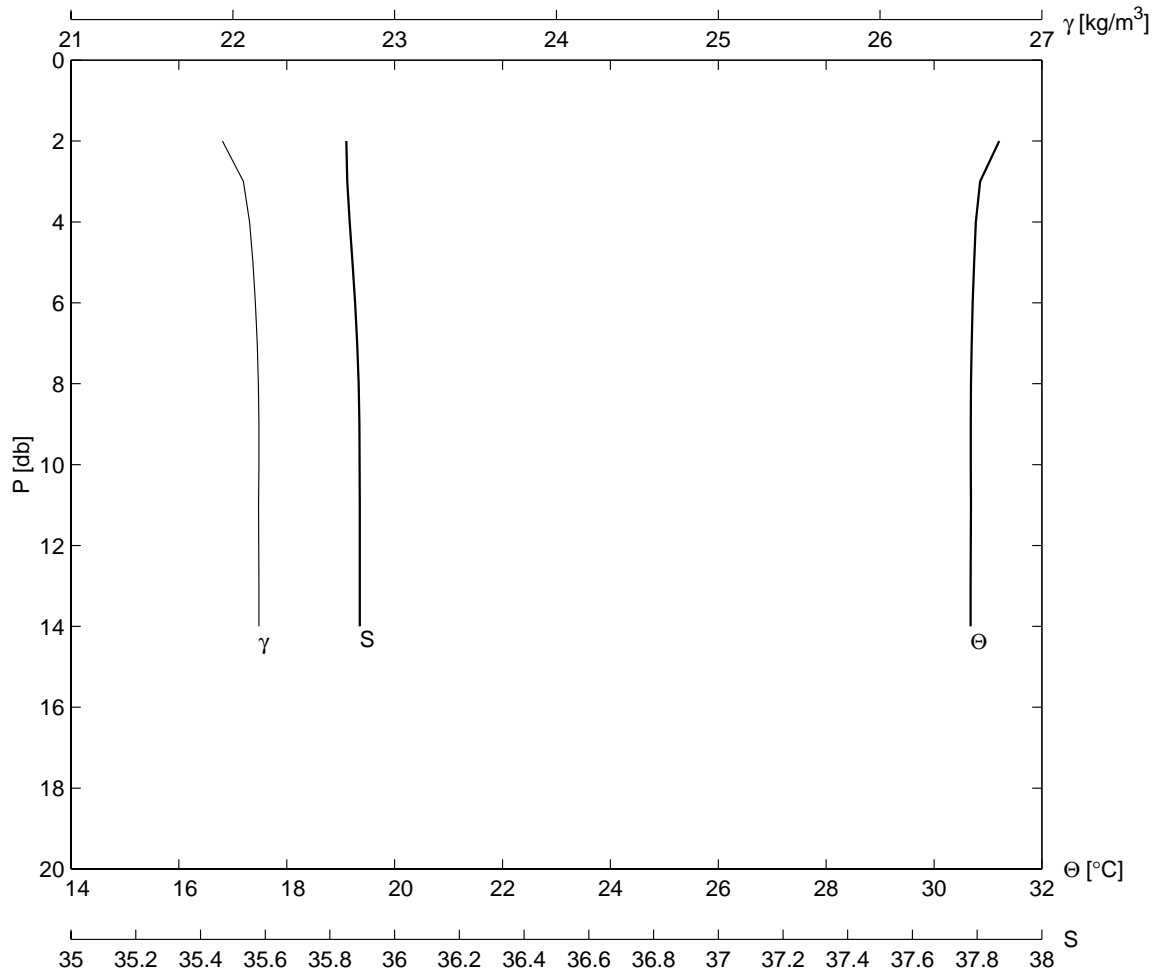
ESTACION	LANCE	LATITUD	LONGITUD	DD	MM	AA	H[UT]		
H14	74	31 27.6	113 45.0	10	8	2000	2038		
PROFTOT	TEMSUP	SALSUP	TEBUHU	TEBUSE	V-MAG	DIR	NUBES	BAROM	
[m]	[°C]	[ups]	[°C]	[°C]	[m/s]	[AZM]	[1/8]	[bar]	
9.0	31.7	35.96	27.0	32.0	51.4	999	9	1010.0	
PR	Θ	SA	γ	OX	PR	Θ	SA	γ	OX
[db]	[°C]		[kg/m <sup>3</sup> ]	[ml/l]	[db]	[°C]		[kg/m <sup>3</sup> ]	[ml/l]
2.0	31.320	35.970	21.995	99.900	6.0	31.083	36.023	22.118	99.900
3.0	31.130	36.008	22.090	99.900	7.0	31.081	36.023	22.119	99.900
4.0	31.090	36.021	22.114	99.900	8.0	31.082	36.024	22.119	99.900
5.0	31.078	36.024	22.121	99.900	9.0	31.087	36.020	22.115	99.900
9.0	31.087	36.020	22.115	99.900					



ESTACION	LANCE	LATITUD	LONGITUD	DD	MM	AA	H[UT]		
H13	75	31 25.1	113 50.0	10	8	2000	2127		
PROFTOT	TEMSUP	SALSUP	TEBUHU	TEBUSE	V-MAG	DIR	NUBES	BAROM	
[m]	[°C]	[ups]	[°C]	[°C]	[m/s]	[AZM]	[1/8]	[bar]	
14.1	31.7	35.82	26.0	32.5	1.7	150	9	1010.0	
PR	Θ	SA	γ	OX	PR	Θ	SA	γ	OX
[db]	[°C]		[kg/m <sup>3</sup> ]	[ml/l]	[db]	[°C]		[kg/m <sup>3</sup> ]	[ml/l]
2.0	31.296	35.826	21.896	99.900	7.0	30.882	35.830	22.043	99.900
3.0	31.125	35.821	21.952	99.900	8.0	30.853	35.828	22.052	99.900
4.0	30.957	35.811	22.004	99.900	9.0	30.828	35.828	22.062	99.900
5.0	30.920	35.834	22.034	99.900	10.0	30.821	35.829	22.064	99.900
6.0	30.906	35.831	22.036	99.900	14.0	30.805	35.828	22.069	99.900

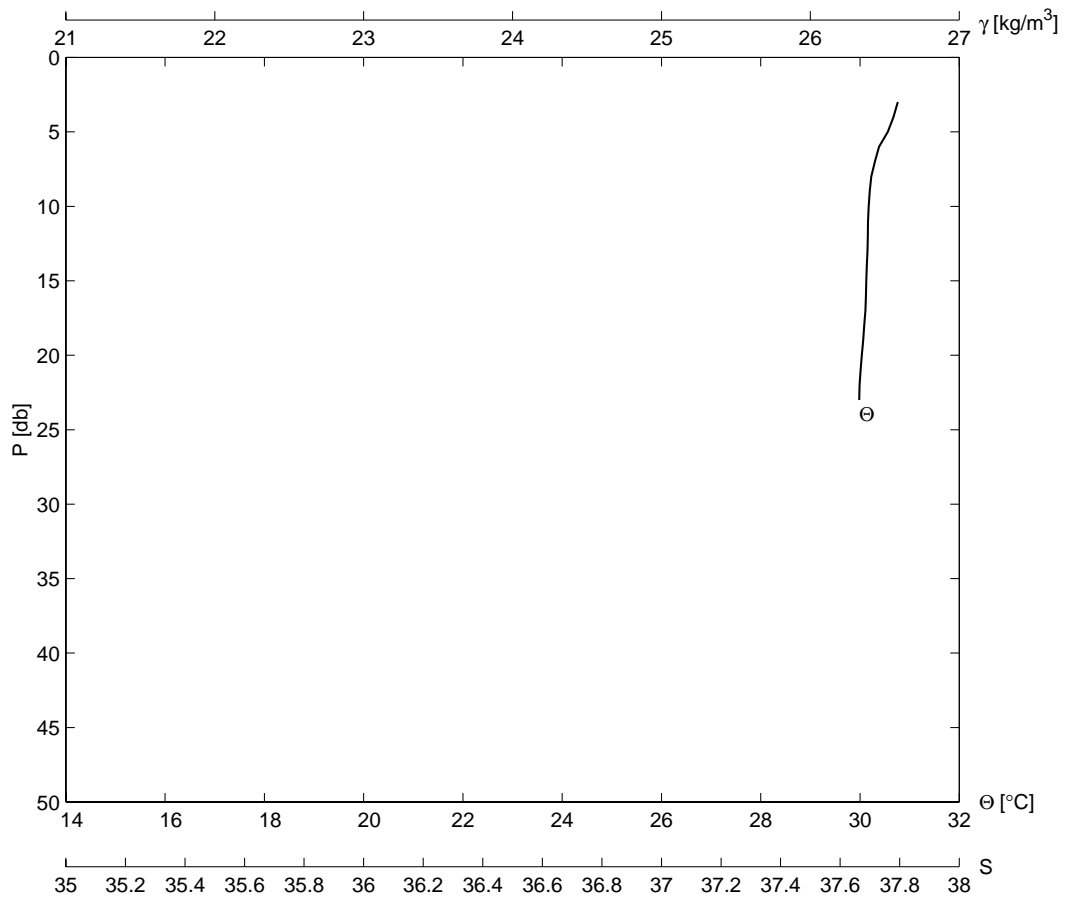


ESTACION	LANCE	LATITUD	LONGITUD	DD	MM	AA	H[UT]		
H12	76	31 22.5	113 55.6	10	8	2000	2215		
PROFTOT	TEMSUP	SALSUP	TEBUHU	TEBUSE	V-MAG	DIR	NUBES	BAROM	
[m]	[°C]	[ups]	[°C]	[°C]	[m/s]	[AZM]	[1/8]	[bar]	
17.4	31.6	35.83	26.0	32.3	2.3	150	9	1010.0	
PR	Θ	SA	γ	OX	PR	Θ	SA	γ	OX
[db]	[°C]		[kg/m <sup>3</sup> ]	[ml/l]	[db]	[°C]		[kg/m <sup>3</sup> ]	[ml/l]
2.0	31.208	35.838	21.935	99.900	7.0	30.698	35.887	22.151	99.900
3.0	30.854	35.846	22.066	99.900	8.0	30.686	35.891	22.158	99.900
4.0	30.777	35.861	22.104	99.900	9.0	30.682	35.893	22.161	99.900
5.0	30.743	35.873	22.124	99.900	10.0	30.681	35.893	22.161	99.900
6.0	30.717	35.880	22.139	99.900	14.0	30.679	35.892	22.161	99.900

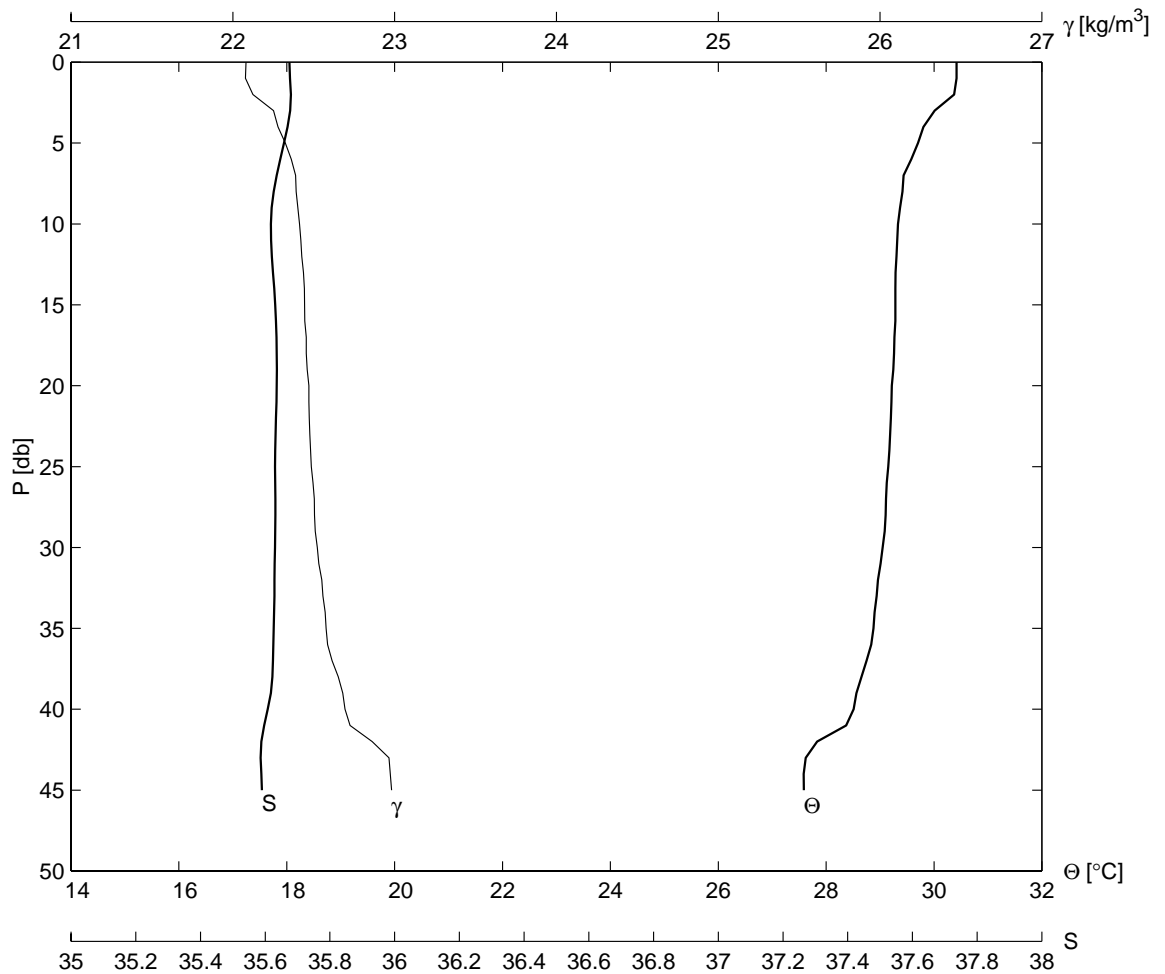




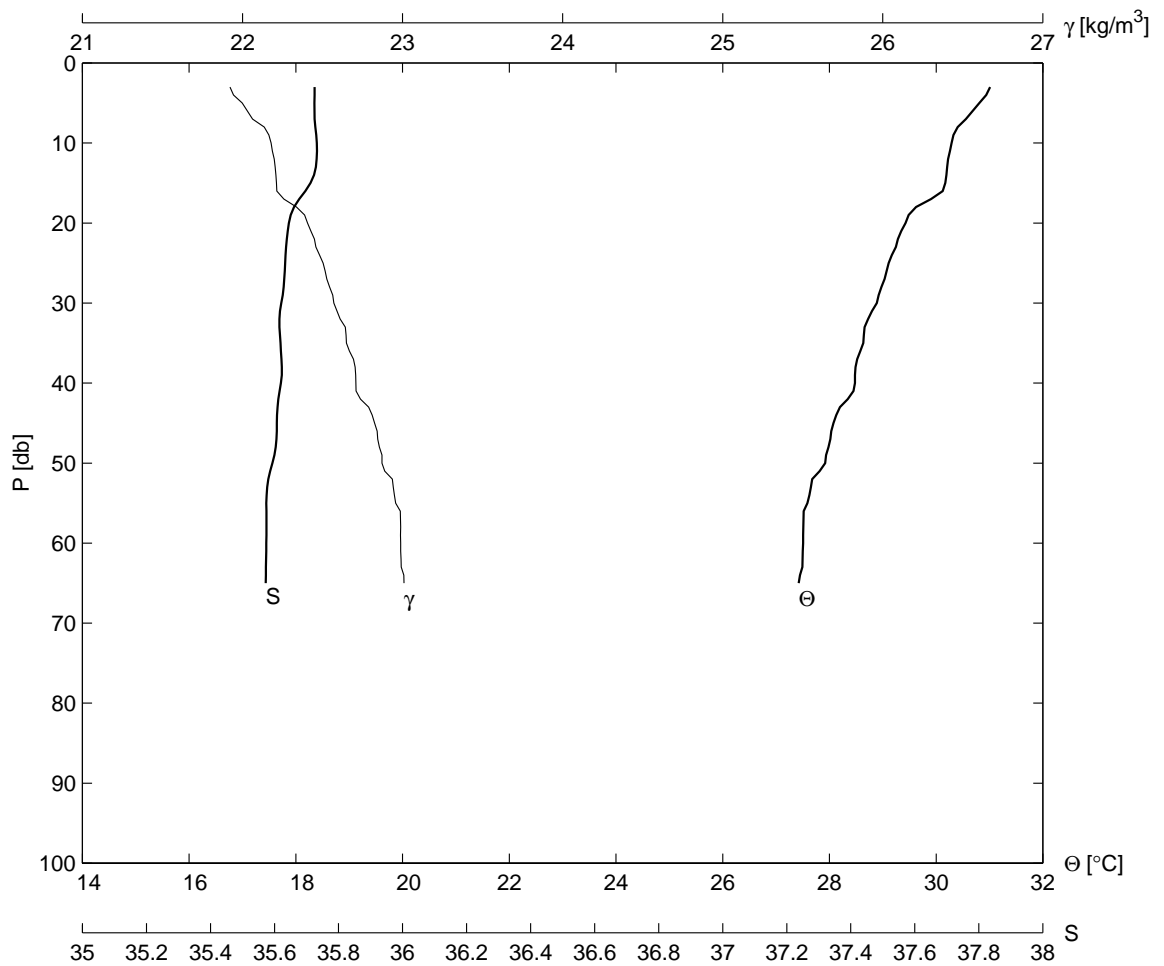
ESTACION	LANCE	LATITUD	LONGITUD	DD	MM	AA	H[UT]		
H11	77	31 19.9	114 0.1	10	8	2000	2302		
PROFTOT	TEMSUP	SALSUP	TEBUHU	TEBUSE	V-MAG	DIR	NUBES	BAROM	
[m]	[°C]	[ups]	[°C]	[°C]	[m/s]	[AZM]	[1/8]	[bar]	
25.3	99.9	99.90	99.9	99.9	51.4	999	9	100.0	
PR	Θ	SA	γ	OX	PR	Θ	SA	γ	OX
[db]	[°C]		[kg/m <sup>3</sup> ]	[ml/l]	[db]	[°C]		[kg/m <sup>3</sup> ]	[ml/l]
3.0	30.761	99.900	99.900	99.900	8.0	30.228	99.900	99.900	99.900
4.0	30.673	99.900	99.900	99.900	9.0	30.195	99.900	99.900	99.900
5.0	30.561	99.900	99.900	99.900	10.0	30.173	99.900	99.900	99.900
6.0	30.384	99.900	99.900	99.900	15.0	30.125	99.900	99.900	99.900
7.0	30.298	99.900	99.900	99.900	20.0	30.035	99.900	99.900	99.900
23.0	29.983	99.900	99.900	99.900					



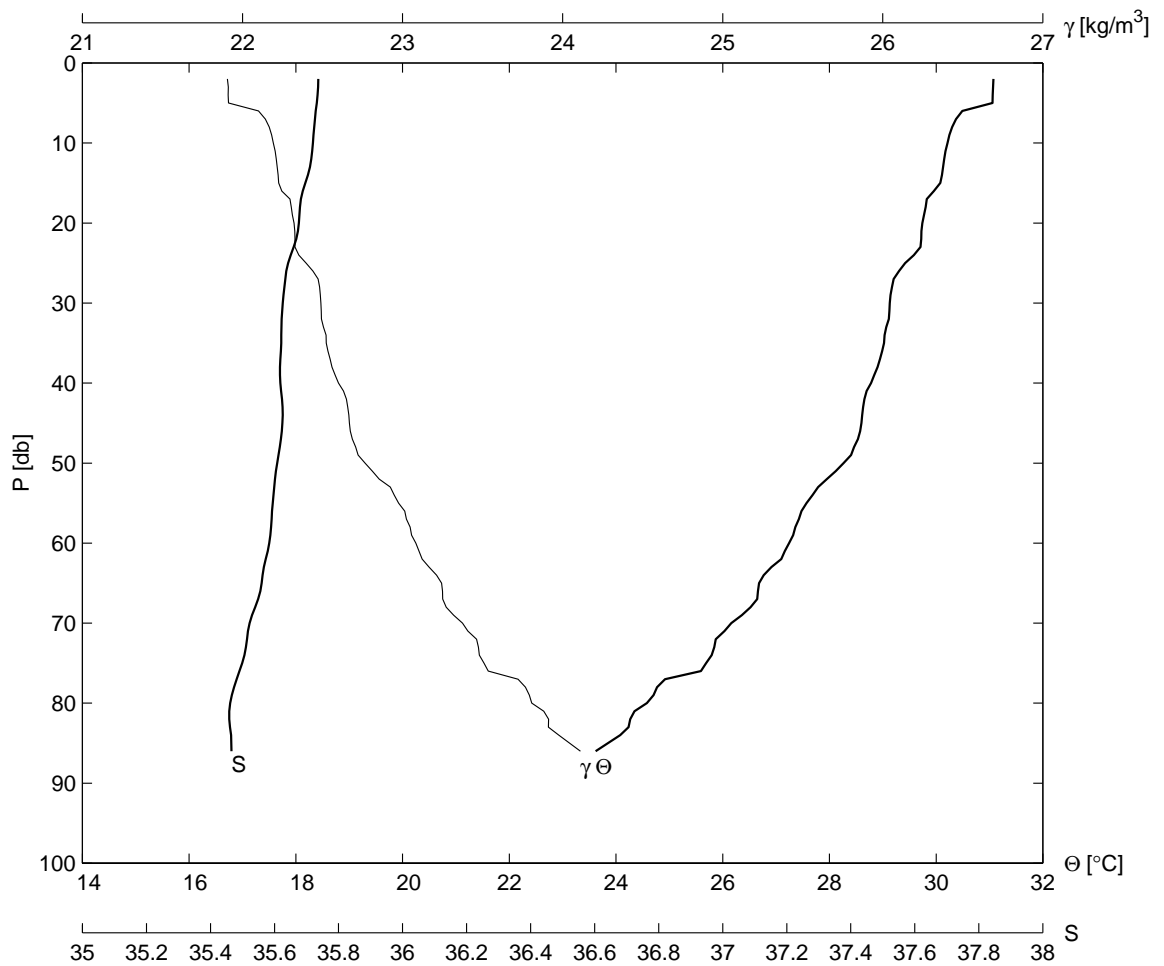
ESTACION	LANCE	LATITUD	LONGITUD	DD	MM	AA	H[UT]		
H10	78	31 17.3	114 5.1	10	8	2000	2348		
PROFTOT	TEMSUP	SALSUP	TEBUHU	TEBUSE	V-MAG	DIR	NUBES	BAROM	
[m]	[°C]	[ups]	[°C]	[°C]	[m/s]	[AZM]	[1/8]	[bar]	
46.1	30.7	35.64	28.0	33.0	2.0	197	9	998.0	
PR	Θ	SA	γ	OX	PR	Θ	SA	γ	OX
[db]	[°C]		[kg/m <sup>3</sup> ]	[ml/l]	[db]	[°C]		[kg/m <sup>3</sup> ]	[ml/l]
2.0	30.373	35.701	22.124	99.900	9.0	29.370	35.615	22.402	99.900
3.0	30.012	35.707	22.252	99.900	10.0	29.334	35.613	22.412	99.900
4.0	29.802	35.647	22.279	99.900	15.0	29.283	35.632	22.444	99.900
5.0	29.703	35.662	22.324	99.900	20.0	29.217	35.637	22.470	99.900
6.0	29.577	35.654	22.361	99.900	25.0	29.153	35.628	22.485	99.900
7.0	29.437	35.628	22.388	99.900	30.0	29.047	35.631	22.522	99.900
8.0	29.417	35.622	22.391	99.900	40.0	28.510	35.621	22.694	99.900
45.0	27.586	35.601	22.982	99.900					



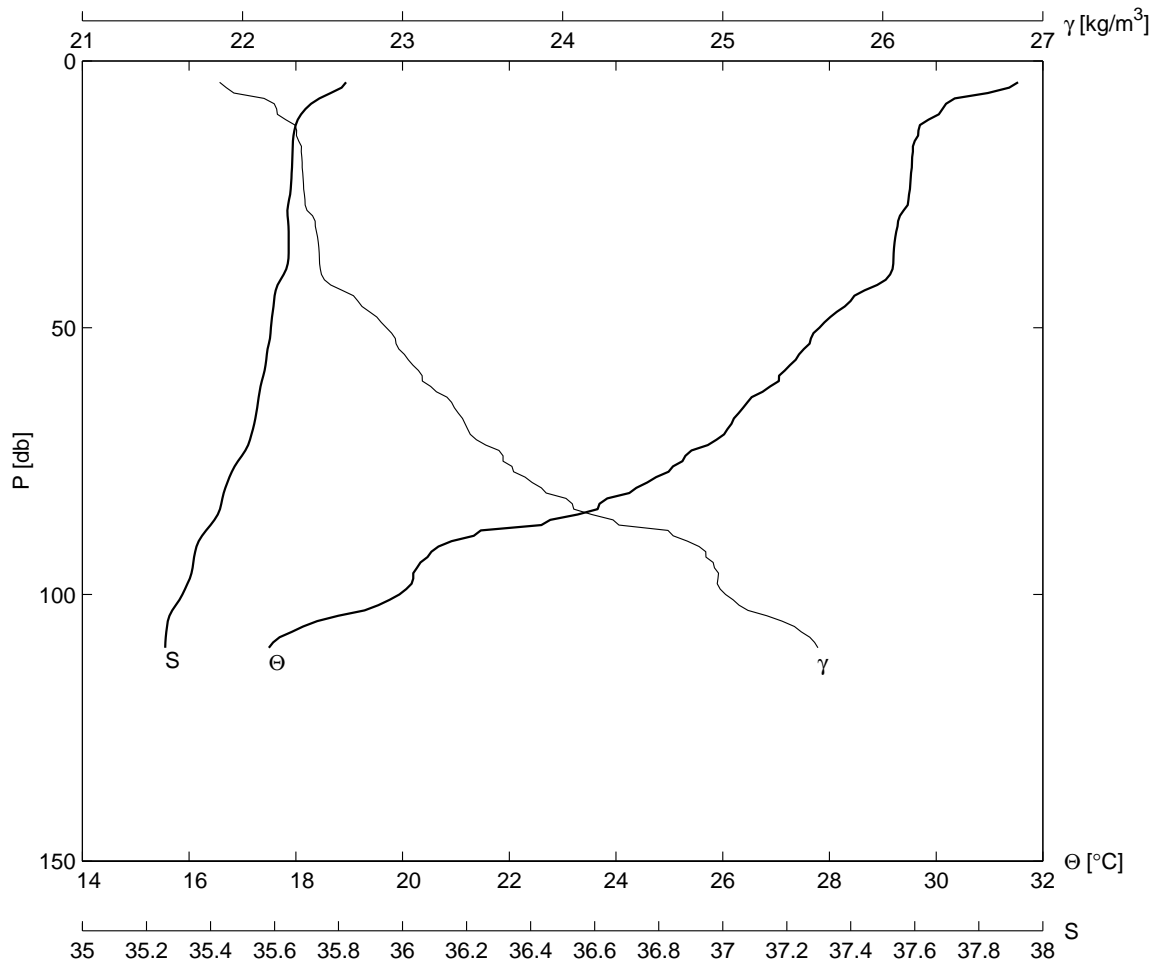
ESTACION	LANCE	LATITUD	LONGITUD	DD	MM	AA	H[UT]		
H09	79	31 15.0	114 9.8	11	8	2000	0032		
PROFTOT	TEMSUP	SALSUP	TEBUHU	TEBUSE	V-MAG	DIR	NUBES	BAROM	
[m]	[°C]	[ups]	[°C]	[°C]	[m/s]	[AZM]	[1/8]	[bar]	
66.1	31.3	35.70	28.0	33.0	1.8	203	9	998.0	
PR	Θ	SA	γ	OX	PR	Θ	SA	γ	OX
[db]	[°C]		[kg/m <sup>3</sup> ]	[ml/l]	[db]	[°C]		[kg/m <sup>3</sup> ]	[ml/l]
3.0	31.012	35.727	21.921	99.900	15.0	30.173	35.727	22.212	99.900
4.0	30.937	35.722	21.944	99.900	20.0	29.426	35.646	22.406	99.900
5.0	30.810	35.736	21.998	99.900	25.0	29.109	35.633	22.503	99.900
7.0	30.557	35.705	22.063	99.900	30.0	28.889	35.625	22.571	99.900
8.0	30.405	35.732	22.136	99.900	40.0	28.478	35.625	22.708	99.900
9.0	30.324	35.734	22.165	99.900	50.0	27.920	35.599	22.871	99.900
10.0	30.291	35.736	22.179	99.900	60.0	27.505	35.575	22.988	99.900
65.0	27.423	35.566	23.008	99.900					



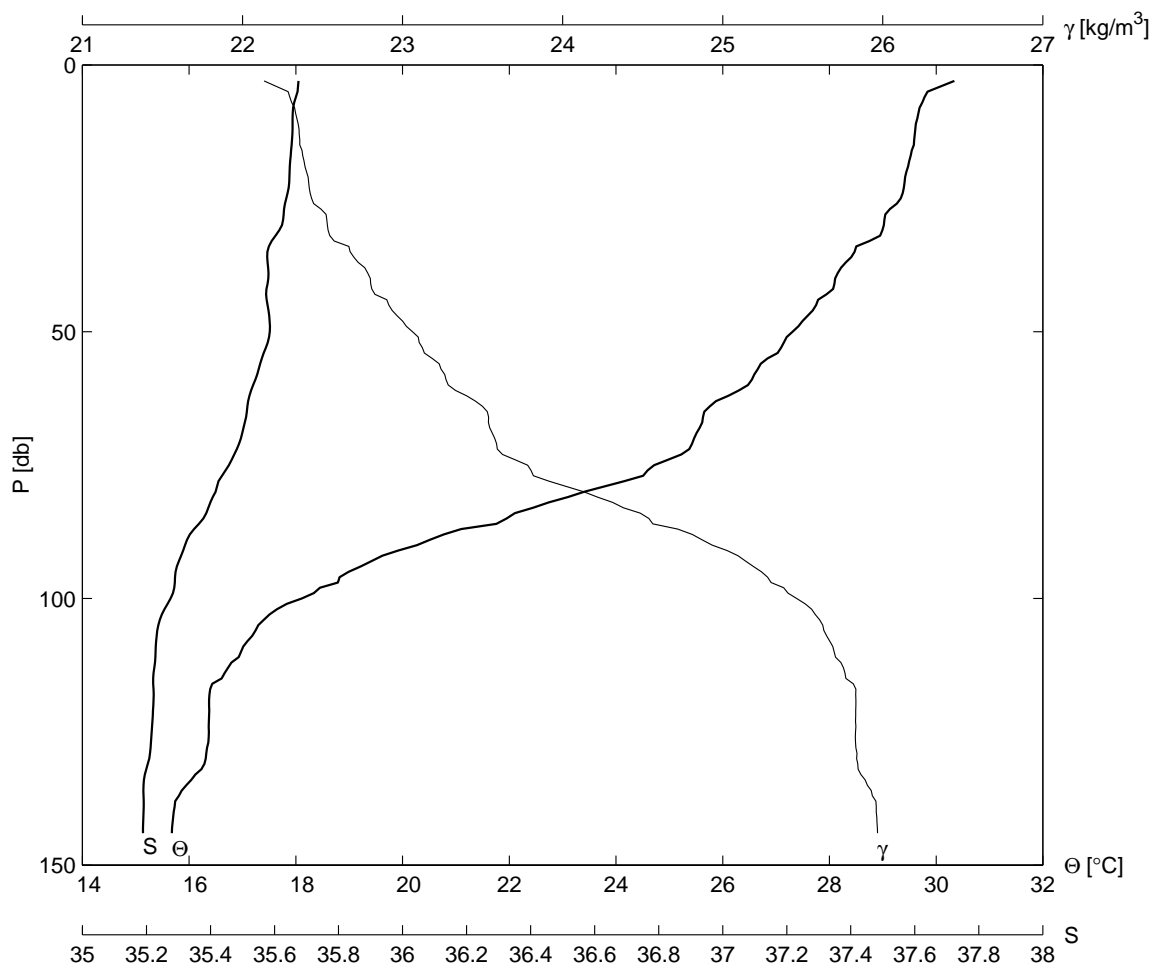
ESTACION	LANCE	LATITUD	LONGITUD	DD	MM	AA	H[UT]		
W01	80	31 12.0	114 10.4	11	8	2000	0103		
PROFTOT	TEMSUP	SALSUP	TEBUHU	TEBUSE	V-MAG	DIR	NUBES	BAROM	
[m]	[°C]	[ups]	[°C]	[°C]	[m/s]	[AZM]	[1/8]	[bar]	
91.4	31.4	35.72	27.8	33.0	1.9	163	9	998.0	
PR	Θ	SA	γ	OX	PR	Θ	SA	γ	OX
[db]	[°C]		[kg/m <sup>3</sup> ]	[ml/l]	[db]	[°C]		[kg/m <sup>3</sup> ]	[ml/l]
2.0	31.075	35.735	21.905	99.900	15.0	30.078	35.702	22.226	99.900
3.0	31.066	35.739	21.912	99.900	20.0	29.740	35.676	22.322	99.900
4.0	31.061	35.735	21.910	99.900	25.0	29.418	35.631	22.398	99.900
5.0	31.056	35.736	21.913	99.900	30.0	29.131	35.624	22.489	99.900
6.0	30.492	35.724	22.100	99.900	40.0	28.781	35.615	22.599	99.900
7.0	30.373	35.726	22.142	99.900	50.0	28.263	35.608	22.766	99.900
8.0	30.300	35.725	22.167	99.900	60.0	27.242	35.588	23.083	99.900
9.0	30.250	35.722	22.182	99.900	70.0	26.160	35.519	23.375	99.900
10.0	30.213	35.719	22.192	99.900	80.0	24.579	35.448	23.807	99.900
86.0	23.619	35.472	24.111	99.900					



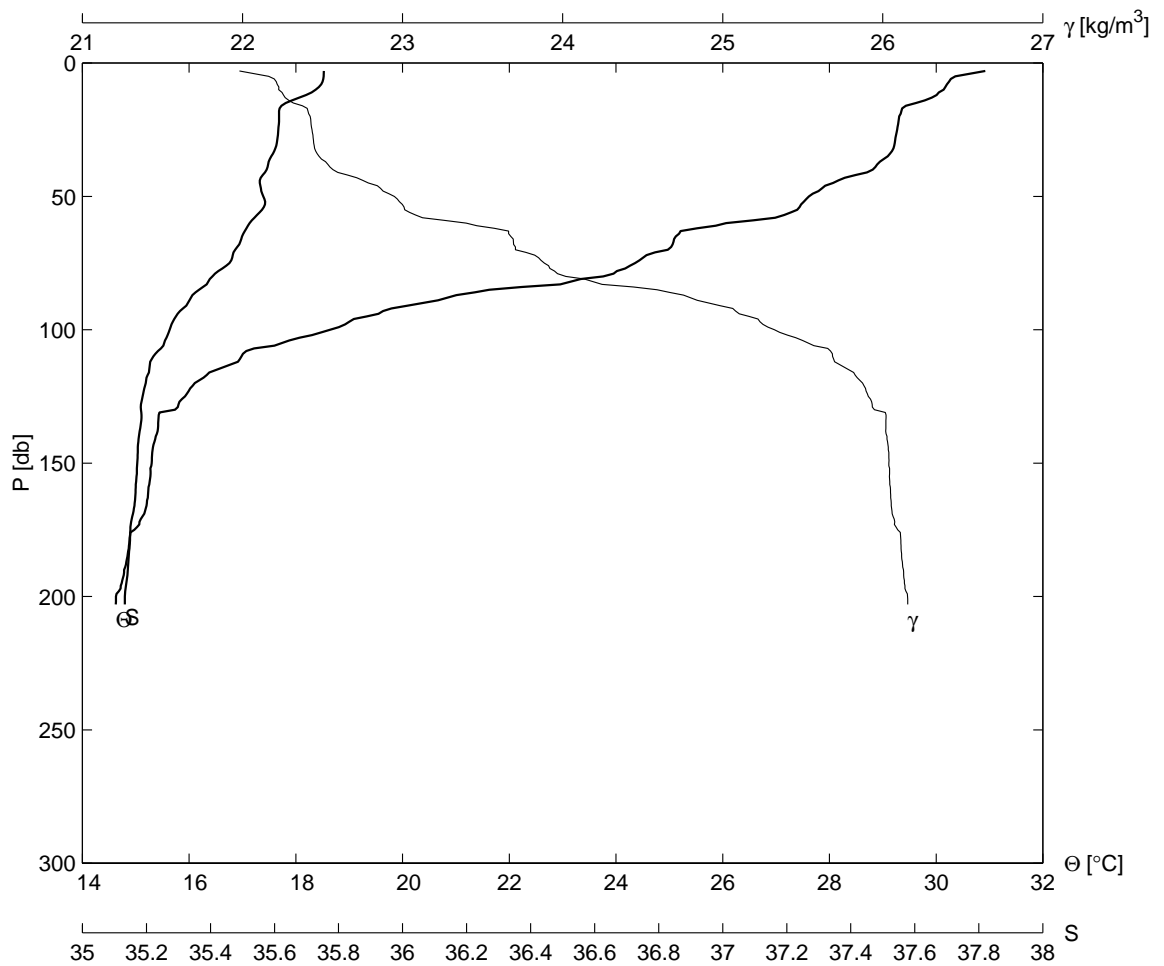
ESTACION	LANCE	LATITUD		LONGITUD		DD	MM	AA	H[UT]
W02	81	31	9.0	114	10.4	11	8	2000	0135
PROFTOT	TEMSUP	SALSUP	TEBUHU	TEBUSE	V-MAG	DIR	NUBES	BAROM	
[m]	[°C]	[ups]	[°C]	[°C]	[m/s]	[AZM]	[1/8]	[bar]	
115.2	31.7	35.82	28.0	32.7	1.7	109	9	998.0	
PR	Θ	SA	γ	OX	PR	Θ	SA	γ	OX
[db]	[°C]		[kg/m <sup>3</sup> ]	[ml/l]	[db]	[°C]		[kg/m <sup>3</sup> ]	[ml/l]
4.0	31.535	35.886	21.857	99.900	25.0	29.491	35.649	22.386	99.900
5.0	31.369	35.864	21.899	99.900	30.0	29.288	35.647	22.453	99.900
6.0	30.969	35.741	21.947	99.900	40.0	29.139	35.633	22.493	99.900
7.0	30.349	35.705	22.134	99.900	50.0	27.811	35.588	22.899	99.900
8.0	30.184	35.713	22.198	99.900	60.0	27.051	35.560	23.123	99.900
9.0	30.118	35.704	22.214	99.900	70.0	26.026	35.527	23.423	99.900
10.0	30.050	35.679	22.218	99.900	80.0	24.382	35.448	23.867	99.900
15.0	29.600	35.652	22.351	99.900	90.0	20.919	35.346	24.779	99.900
20.0	29.543	35.654	22.372	99.900	100.0	19.938	35.315	25.018	99.900
110.0	17.493	35.259	25.594	99.900					



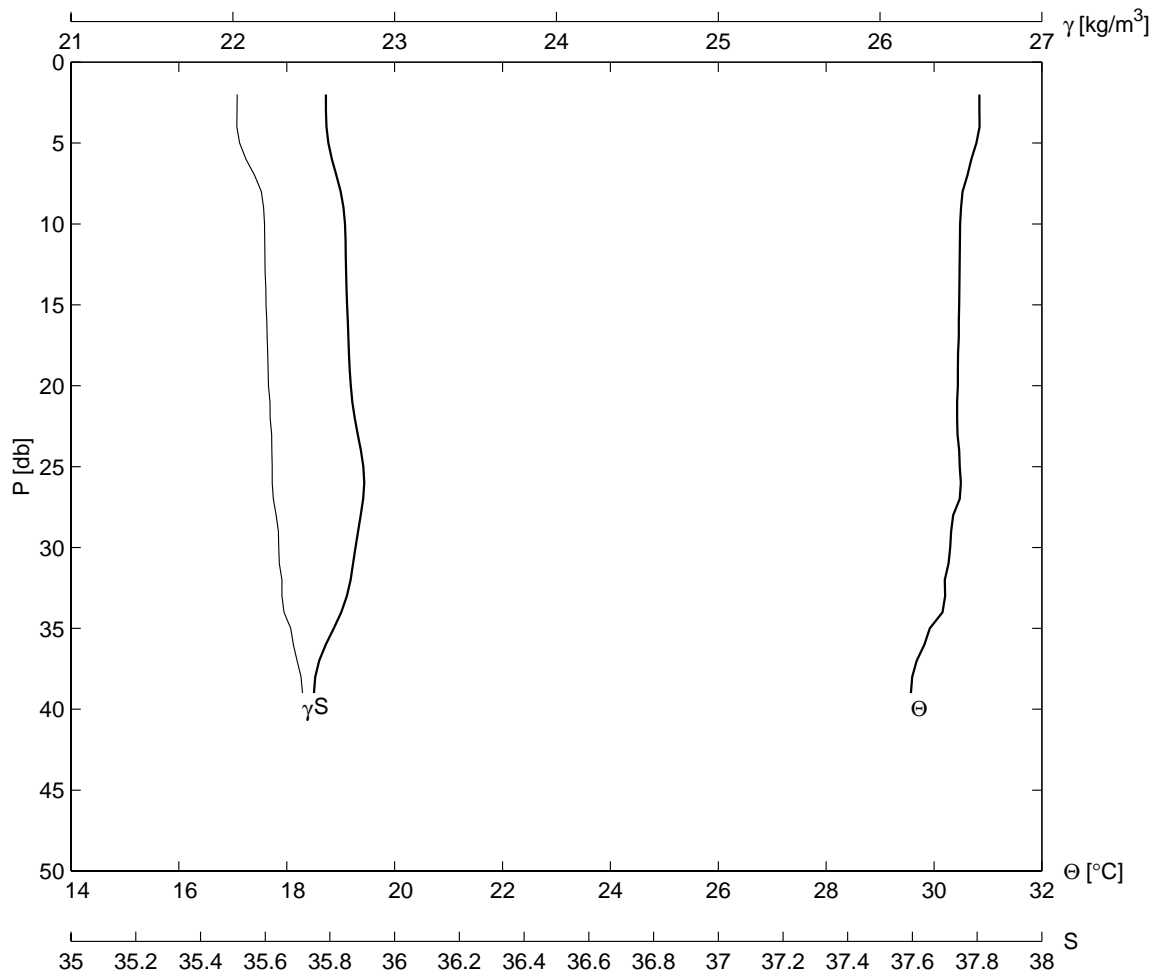
ESTACION	LANCE	LATITUD		LONGITUD		DD	MM	AA	H[UT]
W03	82	31	6.0	114	10.3	11	8	2000	0213
PROFTOT	TEMSUP	SALSUP	TEBUHU	TEBUSE	V-MAG	DIR	NUBES	BAROM	
[m]	[°C]	[ups]	[°C]	[°C]	[m/s]	[AZM]	[1/8]	[bar]	
151.4	30.2	35.60	31.0	33.0	1.3	106	9	998.0	
PR	Θ	SA	γ	OX	PR	Θ	SA	γ	OX
[db]	[°C]		[kg/m <sup>3</sup> ]	[ml/l]	[db]	[°C]		[kg/m <sup>3</sup> ]	[ml/l]
3.0	30.343	35.702	22.135	99.900	30.0	29.018	35.628	22.530	99.900
5.0	29.837	35.671	22.285	99.900	40.0	28.109	35.584	22.798	99.900
6.0	29.784	35.661	22.295	99.900	50.0	27.308	35.589	23.062	99.900
7.0	29.740	35.655	22.306	99.900	60.0	26.473	35.531	23.285	99.900
8.0	29.691	35.658	22.325	99.900	70.0	25.462	35.497	23.575	99.900
9.0	29.668	35.656	22.331	99.900	80.0	23.401	35.416	24.133	99.900
10.0	29.646	35.657	22.339	99.900	90.0	20.270	35.320	24.934	99.900
15.0	29.581	35.652	22.358	99.900	100.0	18.111	35.283	25.461	99.900
20.0	29.442	35.645	22.400	99.900	120.0	16.375	35.222	25.832	99.900
25.0	29.336	35.639	22.431	99.900	140.0	15.712	35.189	25.959	99.900
144.0	15.676	35.189	25.967	99.900					



ESTACION	LANCE	LATITUD		LONGITUD		DD	MM	AA	H[UT]
W04	83	31	2.0	114	10.4	11	8	2000	0300
PROFTOT	TEMSUP	SALSUP	TEBUHU	TEBUSE	V-MAG	DIR	NUBES	BAROM	
212.0	99.9	99.90	99.9	99.9	51.4	999	9	100.0	
PR	Θ	SA	γ	OX	PR	Θ	SA	γ	OX
[db]	[°C]		[kg/m <sup>3</sup> ]	[ml/l]	[db]	[°C]		[kg/m <sup>3</sup> ]	[ml/l]
3.0	30.921	35.764	21.981	99.900	40.0	28.811	35.583	22.565	99.900
5.0	30.358	35.747	22.163	99.900	50.0	27.613	35.569	22.948	99.900
6.0	30.276	35.755	22.198	99.900	60.0	26.062	35.508	23.397	99.900
7.0	30.240	35.756	22.211	99.900	70.0	24.970	35.469	23.705	99.900
8.0	30.203	35.746	22.216	99.900	80.0	23.761	35.407	24.020	99.900
9.0	30.170	35.746	22.227	99.900	100.0	18.643	35.276	25.323	99.900
10.0	30.140	35.731	22.226	99.900	120.0	16.107	35.196	25.874	99.900
15.0	29.625	35.618	22.317	99.900	140.0	15.373	35.178	26.026	99.900
20.0	29.306	35.614	22.422	99.900	160.0	15.234	35.167	26.049	99.900
25.0	29.268	35.612	22.434	99.900	180.0	14.879	35.148	26.113	99.900
30.0	29.226	35.607	22.444	99.900	200.0	14.628	35.132	26.155	99.900
203.0	14.625	35.133	26.156	99.900					

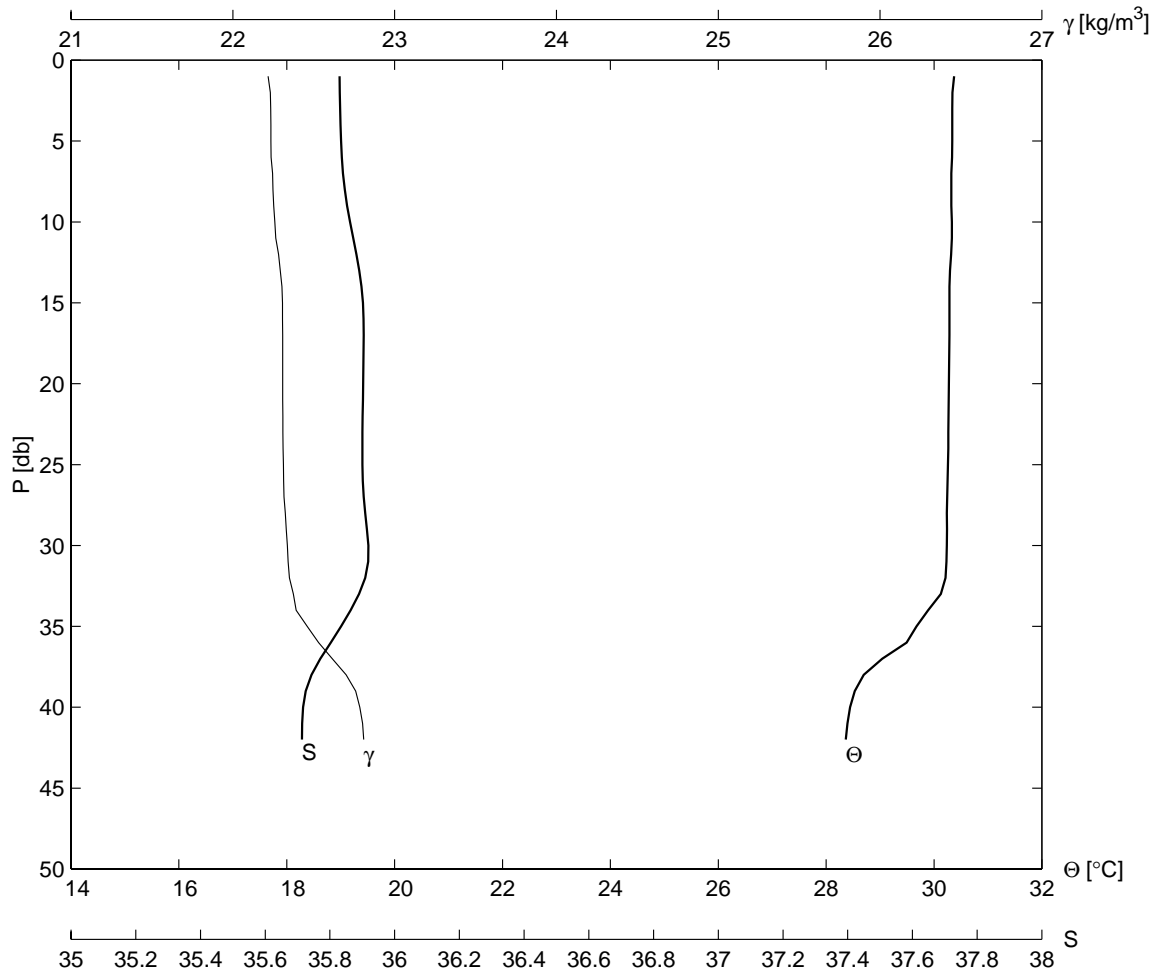


ESTACION	LANCE	LATITUD	LONGITUD	DD	MM	AA	H[UT]		
H07	84	31 10.0	114 20.0	11	8	2000	0445		
PROFTOT	TEMSUP	SALSUP	TEBUHU	TEBUSE	V-MAG	DIR	NUBES	BAROM	
[m]	[°C]	[ups]	[°C]	[°C]	[m/s]	[AZM]	[1/8]	[bar]	
43.7	31.1	35.76	28.0	31.0	2.1	200	9	1001.0	
PR	$\Theta$	SA	$\gamma$	OX	PR	$\Theta$	SA	$\gamma$	OX
[db]	[°C]		[kg/m <sup>3</sup> ]	[ml/l]	[db]	[°C]		[kg/m <sup>3</sup> ]	[ml/l]
2.0	30.842	35.789	22.027	99.900	9.0	30.501	35.849	22.190	99.900
3.0	30.842	35.788	22.026	99.900	10.0	30.484	35.849	22.196	99.900
4.0	30.843	35.786	22.024	99.900	15.0	30.467	35.852	22.205	99.900
5.0	30.785	35.783	22.043	99.900	20.0	30.442	35.862	22.221	99.900
6.0	30.692	35.791	22.081	99.900	25.0	30.477	35.908	22.243	99.900
7.0	30.620	35.830	22.135	99.900	30.0	30.299	35.880	22.283	99.900
8.0	30.530	35.844	22.176	99.900	39.0	29.573	35.746	22.431	99.900

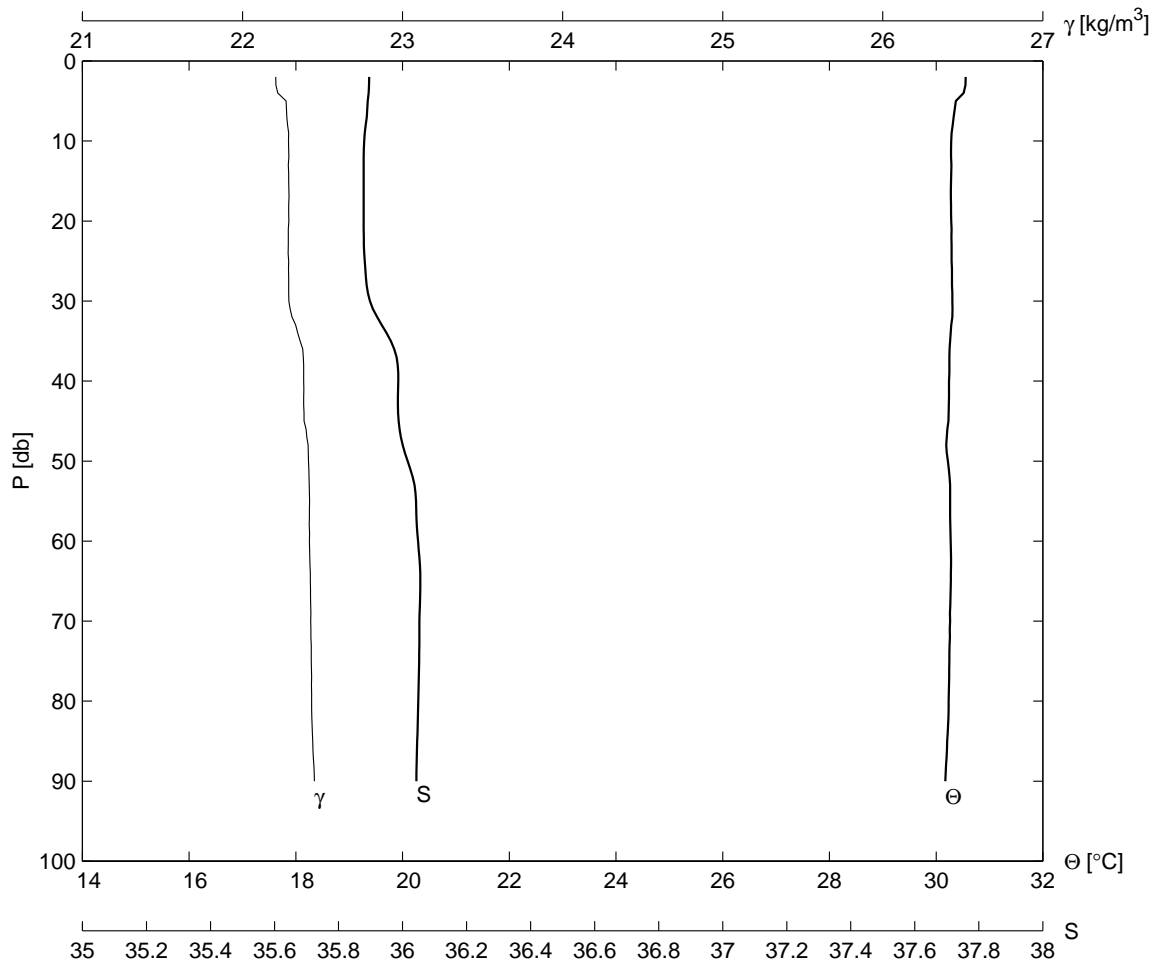




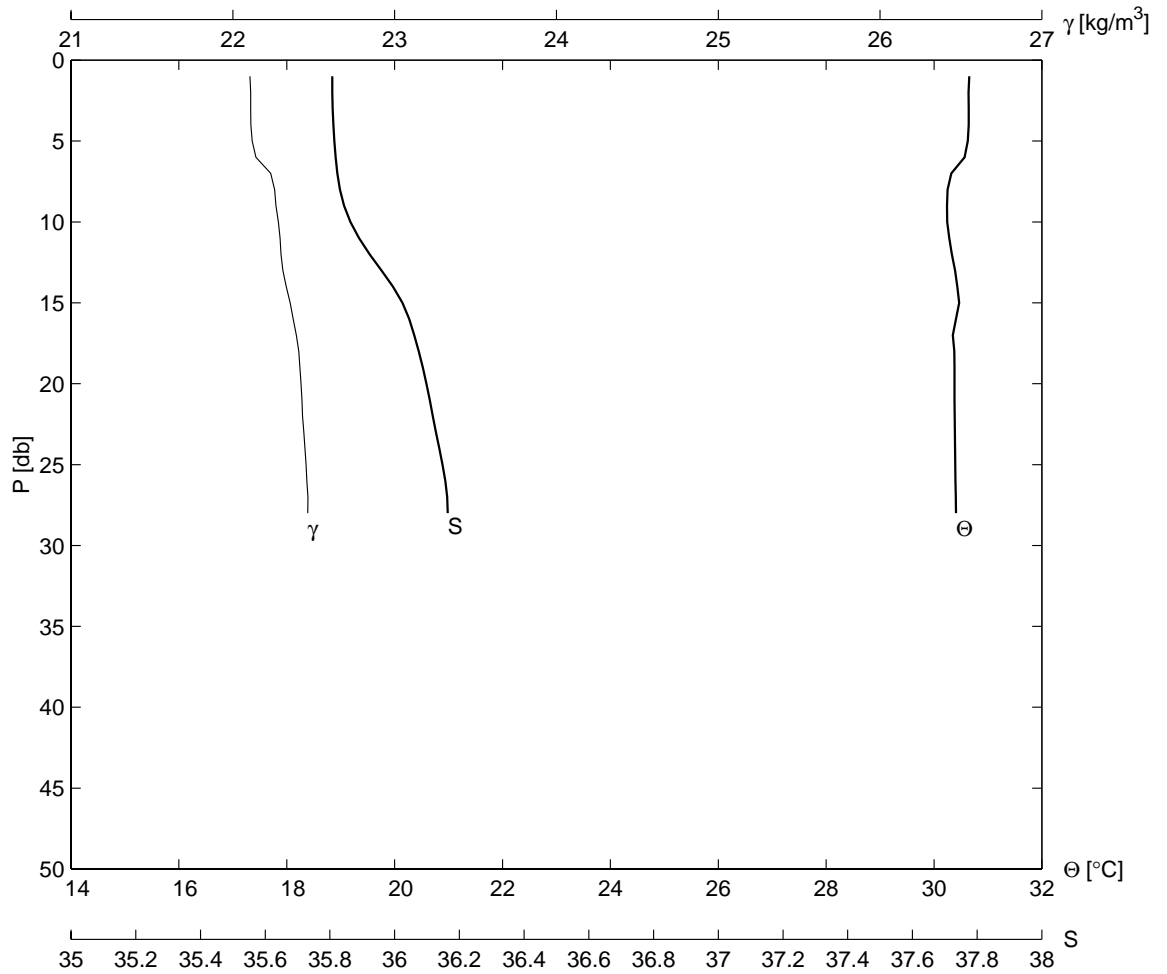
ESTACION	LANCE	LATITUD	LONGITUD	DD	MM	AA	H[UT]		
H06	85	31 7.6	114 24.9	11	8	2000	0535		
PROFTOT	TEMSUP	SALSUP	TEBUHU	TEBUSE	V-MAG	DIR	NUBES	BAROM	
[m]	[°C]	[ups]	[°C]	[°C]	[m/s]	[AZM]	[1/8]	[bar]	
44.0	30.6	35.81	28.0	32.0	2.5	178	9	1002.0	
PR	Θ	SA	γ	OX	PR	Θ	SA	γ	OX
[db]	[°C]		[kg/m <sup>3</sup> ]	[ml/l]	[db]	[°C]		[kg/m <sup>3</sup> ]	[ml/l]
2.0	30.340	35.830	22.232	99.900	9.0	30.322	35.850	22.253	99.900
3.0	30.337	35.832	22.234	99.900	10.0	30.331	35.863	22.259	99.900
4.0	30.337	35.834	22.235	99.900	15.0	30.286	35.905	22.307	99.900
5.0	30.336	35.833	22.235	99.900	25.0	30.259	35.901	22.313	99.900
6.0	30.334	35.833	22.236	99.900	30.0	30.239	35.924	22.337	99.900
7.0	30.322	35.840	22.246	99.900	40.0	28.444	35.713	22.785	99.900
8.0	30.320	35.842	22.247	99.900	42.0	28.363	35.709	22.809	99.900



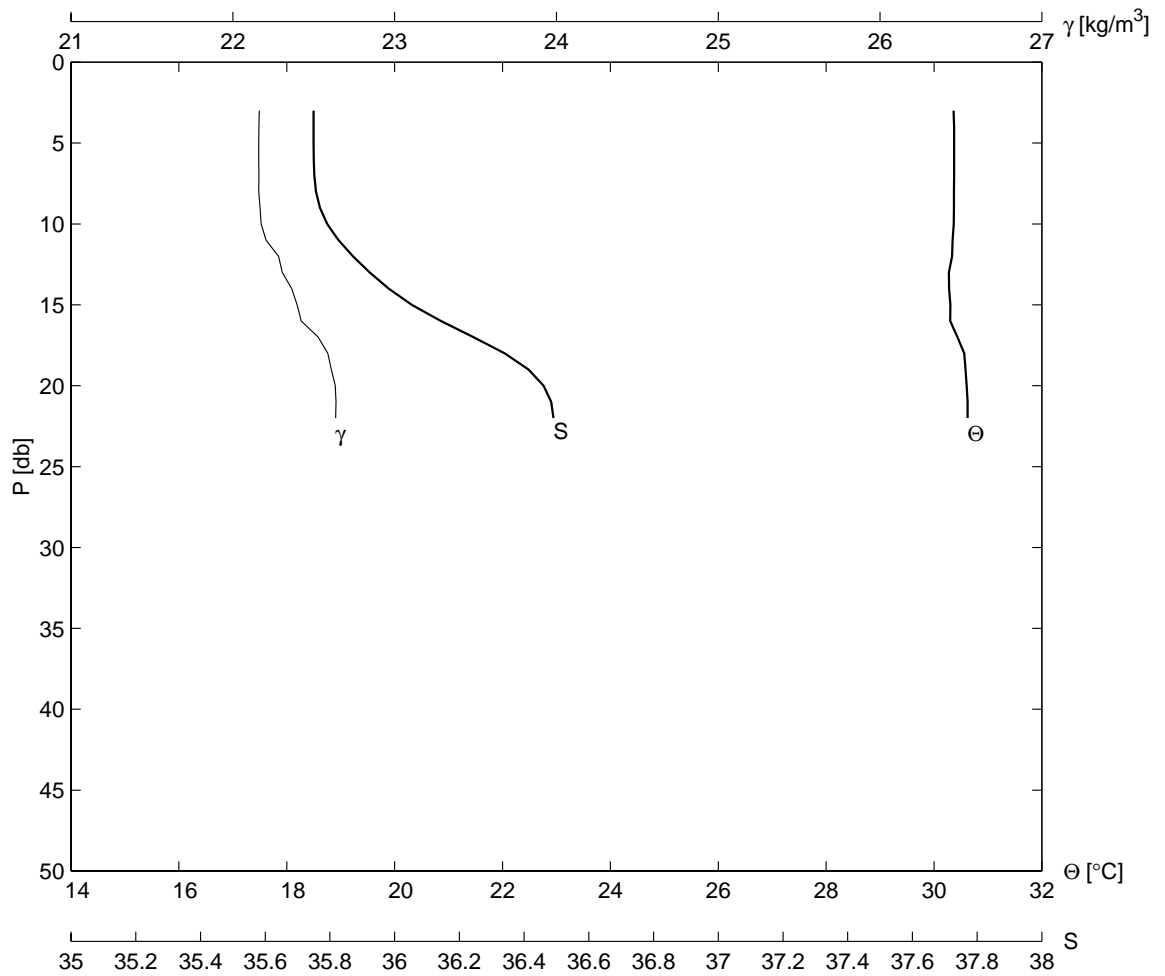
ESTACION	LANCE	LATITUD		LONGITUD		DD	MM	AA	H[UT]
H05	86	31	6.2	114	27.3	11	8	2000	0609
PROFTOT	TEMSUP	SALSUP	TEBUHU	TEBUSE	V-MAG	DIR	NUBES	BAROM	
[m]	[°C]	[ups]	[°C]	[°C]	[m/s]	[AZM]	[1/8]	[bar]	
95.0	30.9	35.87	27.0	31.5	2.4	158	9	1001.0	
PR	Θ	SA	γ	OX	PR	Θ	SA	γ	OX
[db]	[°C]		[kg/m <sup>3</sup> ]	[ml/l]	[db]	[°C]		[kg/m <sup>3</sup> ]	[ml/l]
2.0	30.555	35.897	22.208	99.900	20.0	30.282	35.880	22.289	99.900
3.0	30.549	35.896	22.209	99.900	25.0	30.289	35.883	22.289	99.900
4.0	30.513	35.895	22.220	99.900	30.0	30.304	35.891	22.290	99.900
5.0	30.369	35.897	22.272	99.900	40.0	30.242	35.986	22.383	99.900
7.0	30.327	35.885	22.277	99.900	50.0	30.219	36.015	22.412	99.900
8.0	30.311	35.883	22.281	99.900	60.0	30.272	36.048	22.418	99.900
9.0	30.288	35.883	22.289	99.900	70.0	30.260	36.052	22.426	99.900
10.0	30.283	35.878	22.287	99.900	80.0	30.235	36.048	22.432	99.900
15.0	30.280	35.879	22.289	99.900	90.0	30.172	36.042	22.449	99.900
90.0	30.172	36.042	22.449	99.900					



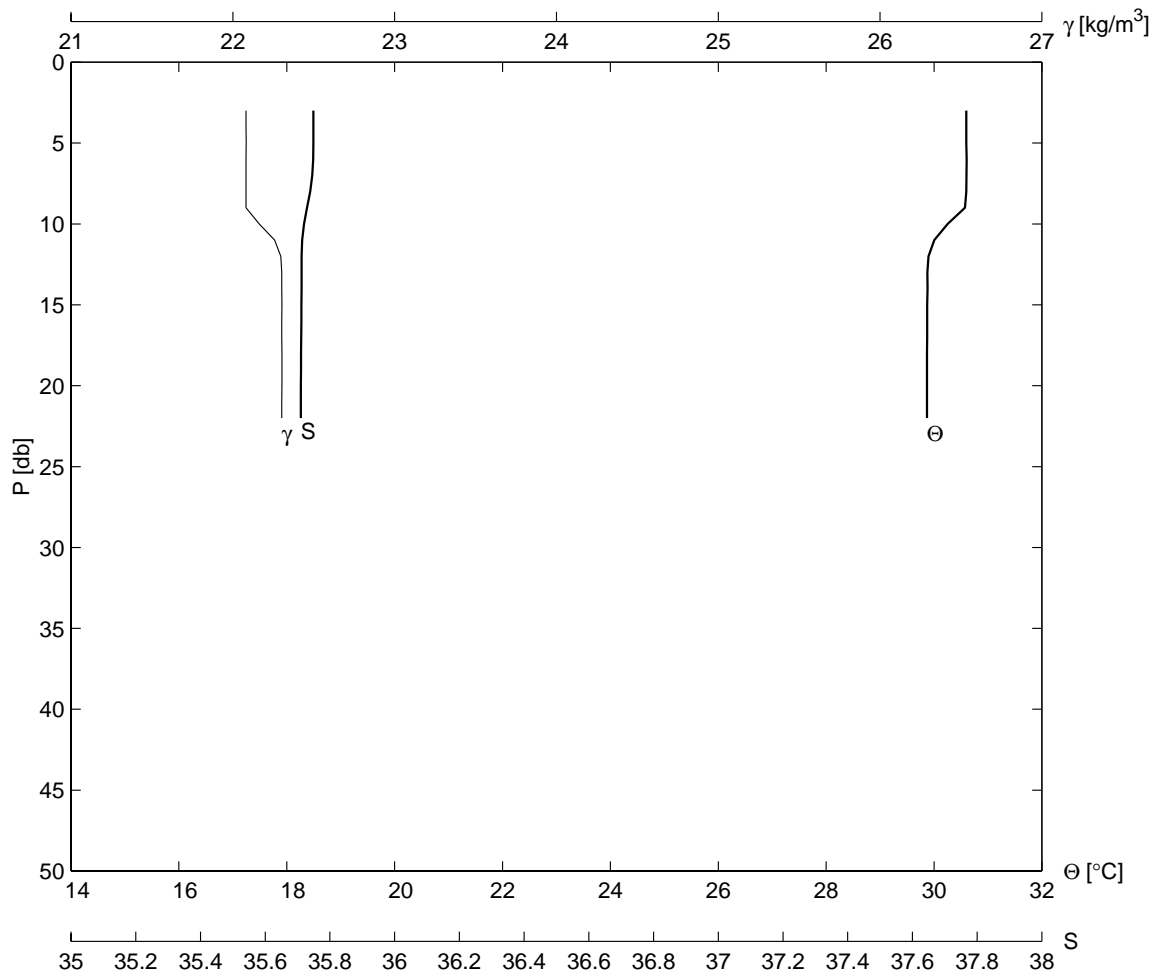
ESTACION	LANCE	LATITUD		LONGITUD		DD	MM	AA	H[UT]
H04	87	31	4.7	114	29.8	11	8	2000	0646
PROFTOT	TEMSUP	SALSUP	TEBUHU	TEBUSE	V-MAG	DIR	NUBES	BAROM	
[m]	[°C]	[ups]	[°C]	[°C]	[m/s]	[AZM]	[1/8]	[bar]	
30.0	30.7	35.72	28.0	32.0	2.1	188	9	1001.0	
PR	Θ	SA	γ	OX	PR	Θ	SA	γ	OX
[db]	[°C]		[kg/m <sup>3</sup> ]	[ml/l]	[db]	[°C]		[kg/m <sup>3</sup> ]	[ml/l]
2.0	30.641	35.806	22.110	99.900	8.0	30.253	35.825	22.258	99.900
3.0	30.642	35.807	22.110	99.900	9.0	30.242	35.831	22.266	99.900
4.0	30.643	35.809	22.111	99.900	10.0	30.244	35.852	22.282	99.900
5.0	30.628	35.813	22.119	99.900	15.0	30.468	36.053	22.354	99.900
6.0	30.569	35.816	22.142	99.900	20.0	30.379	36.101	22.422	99.900
7.0	30.320	35.824	22.234	99.900	25.0	30.395	36.149	22.452	99.900
28.0	30.409	36.170	22.463	99.900					



ESTACION	LANCE	LATITUD		LONGITUD		DD	MM	AA	H[UT]
H03	88	31	2.5	114	35.0	11	8	2000	1149
PROFTOT	TEMSUP	SALSUP	TEBUHU	TEBUSE	V-MAG	DIR	NUBES	BAROM	
[m]	[°C]	[ups]	[°C]	[°C]	[m/s]	[AZM]	[1/8]	[bar]	
22.8	30.7	35.72	28.0	31.0	2.1	138	9	1002.0	
PR	$\Theta$	SA	$\gamma$	OX	PR	$\Theta$	SA	$\gamma$	OX
[db]	[°C]		[kg/m <sup>3</sup> ]	[ml/l]	[db]	[°C]		[kg/m <sup>3</sup> ]	[ml/l]
3.0	30.362	35.749	22.163	99.900	8.0	30.370	35.748	22.160	99.900
4.0	30.371	35.750	22.161	99.900	9.0	30.371	35.760	22.169	99.900
5.0	30.372	35.749	22.160	99.900	10.0	30.367	35.767	22.175	99.900
6.0	30.372	35.749	22.160	99.900	15.0	30.305	36.034	22.397	99.900
7.0	30.372	35.750	22.161	99.900	20.0	30.607	36.488	22.633	99.900
22.0	30.624	36.499	22.635	99.900					



ESTACION	LANCE	LATITUD	LONGITUD	DD	MM	AA	H[UT]		
H02	89	31 0.0	114 40.0	11	8	2000	1237		
PROFTOT	TEMSUP	SALSUP	TEBUHU	TEBUSE	V-MAG	DIR	NUBES	BAROM	
[m]	[°C]	[ups]	[°C]	[°C]	[m/s]	[AZM]	[1/8]	[bar]	
22.9	30.5	99.90	28.8	31.0	2.0	120	9	1002.0	
PR	$\Theta$	SA	$\gamma$	OX	PR	$\Theta$	SA	$\gamma$	OX
[db]	[°C]		[kg/m <sup>3</sup> ]	[ml/l]	[db]	[°C]		[kg/m <sup>3</sup> ]	[ml/l]
3.0	30.598	35.748	22.081	99.900	8.0	30.599	35.749	22.081	99.900
4.0	30.600	35.749	22.082	99.900	9.0	30.573	35.737	22.081	99.900
5.0	30.597	35.749	22.082	99.900	10.0	30.251	35.698	22.163	99.900
6.0	30.604	35.750	22.081	99.900	15.0	29.873	35.712	22.303	99.900
7.0	30.602	35.750	22.081	99.900	20.0	29.871	35.710	22.303	99.900
22.0	29.871	35.709	22.302	99.900					



ESTACION	LANCE	LATITUD	LONGITUD	DD	MM	AA	H[UT]		
H01	90	30 57.6	114 44.7	11	8	2000	1326		
PROFTOT	TEMSUP	SALSUP	TEBUHU	TEBUSE	V-MAG	DIR	NUBES	BAROM	
[m]	[°C]	[ups]	[°C]	[°C]	[m/s]	[AZM]	[1/8]	[bar]	
12.7	28.1	99.90	27.0	31.2	0.4	97	9	1003.0	
PR	Θ	SA	γ	OX	PR	Θ	SA	γ	OX
[db]	[°C]		[kg/m <sup>3</sup> ]	[ml/l]	[db]	[°C]		[kg/m <sup>3</sup> ]	[ml/l]
3.0	30.514	36.085	22.363	99.900	7.0	30.525	36.084	22.358	99.900
4.0	30.518	36.085	22.361	99.900	8.0	30.524	36.087	22.360	99.900
5.0	30.521	36.084	22.359	99.900	9.0	30.523	36.090	22.363	99.900
6.0	30.517	36.087	22.363	99.900	10.0	30.522	36.089	22.363	99.900
12.0	30.523	36.090	22.363	99.900					

