



# **LA REPORT 2013-2014**

*Vanessa Hatje*  
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# On going activities

- **Nat. Inst. of Sci. &Tech. MAR/COI – FURG/IPEN/UFPR**  
**M. Wallner, E. Machado, J. de Oliveira**

## **New sampling system**

- 24-bottle sampler for use with 911plus CTD and 12-liter Go-FLO;
- Winch from Interocean;
- Kevlar cable, /electro /mech Cable, from Cortland.

3 Cruises South Brazilian Coast:  
January, July and November, 2014

Parameters:

Nutrients, Fe; POC, PN,  $^{234}\text{Th}$ ,  $^{238}\text{U}$ ,  
 $^{223}\text{Rn}$ ,  $^{224}\text{Rn}$ ,  $^{226}\text{Ra}$ ,  $^{222}\text{Rn}$

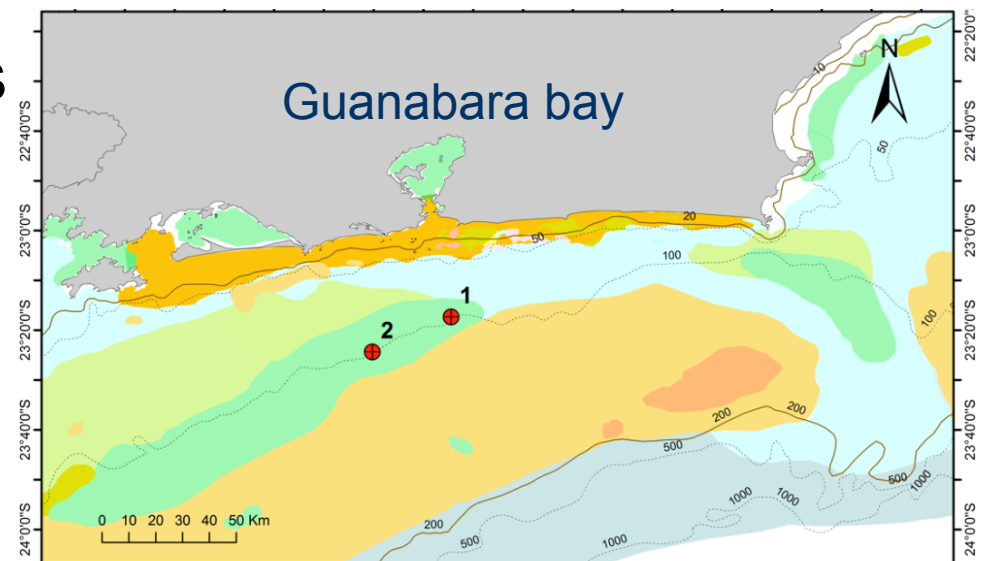


## On going activities

- Leonardo C. Pereira (FURG) participated in the G01/GEOVIDE North Atlantic/Labrador Sea: Fe
- M. Godoy (Picarro Cavity Ring-Down Spectroscopy) is fixed and he will have the results for  $\delta D$  and  $\delta^{18}O$  in water samples from the 2013 Mediterranean Cruise by March/April 2015.
- Brazilian Ocean Acidification Research Group (BrOA - [www.broa.furg.br](http://www.broa.furg.br)) L.C. da Cunha (UERJ) & R. Keer (FURG)
- New SOLAS representative in Brazil – L.C. da Cunha

# On going activities

- Collaboration MIT – PUC/RJ (A. Wagener & Ed Boyle):  
“Tracking the historical development of combustion practices using molecular and isotopic markers in shelf sediments of SE Brazil”
  - Trace metals in coastal waters
  - Molecular markers
  - Pb isotopes in long cores



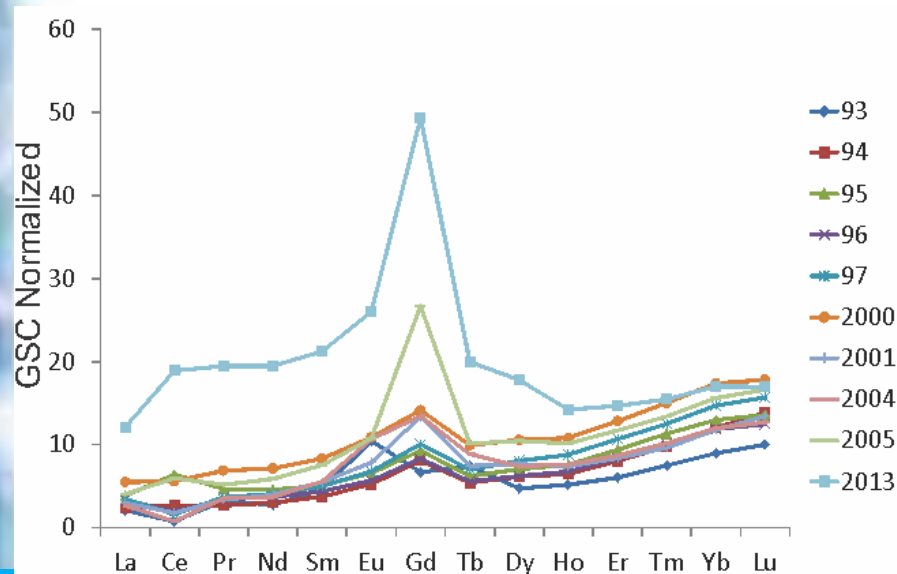
# On going activities

- **New method for determining REEs in seawater:**

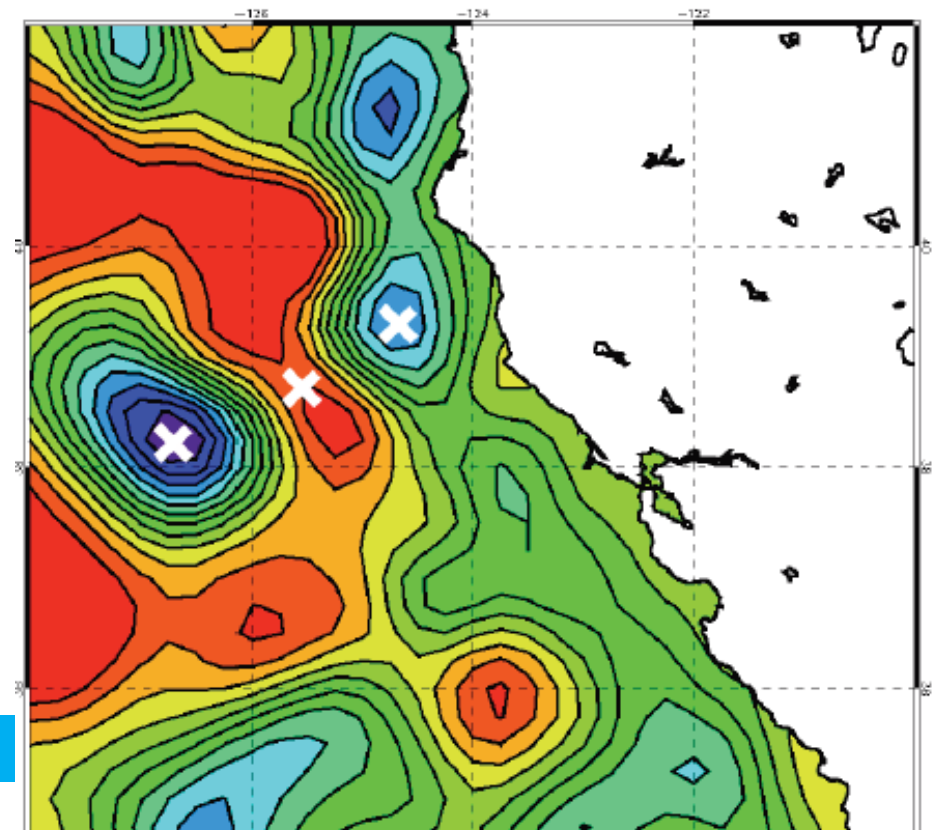
Determination of REE after pre-concentration using Nobias-chelate PA-1resin: method development and application in the SFB plume  
Hatje, Bruland and Flegal, Marine Chemistry, 2014

- **Temporal evolution of anthropogenic Gd**

Hatje, Bruland and Flegal



- **California Cruise 2014**



# Capacity Building

- IAEA Submission

**“Strengthening regional Latin America capabilities for applying trace elements and isotopes in coastal management studies”**

- Brazil (V. Hatje; J. Oliveira; L.C. da Cunha)
- Argentina (S. Farias)
- Colombia (L.F. Espinoza)
- Venezuela (T. Perez & R. Rasse)

We still haven't heard about it!

- Gláucia Benedetti (IO-USP)
- Eunice Machado and her students (FURG)

} would like to participate in GEOTRACES cruises

# Near future developments

## Clean lab facilities - Federal University of Bahia

- “Non-conventional gas -GASBRAS” (J. de Andrade) FINEP
  - Clean lab facilities at UFBA/Bahia
  - new ICP-MS
- “Rare earth elements as tracers of anthropogenic and natural processes” (V. Hatje) FAPESB
  - SEAFAST system

# **GEOTRACES related research**

## **Grant submission**

**Nat. Inst. of Sci. &Tech. on Tropical Environment/Phase II**

J. de Oliveira, W. Burnett, P. Masqué, V. Hatje

2015/2016 – Todos os Santos Bay

- SGD: Ra and Rn isotopes and associated fluxes of REE and nutrients (and Fe and Zn??)
- C fluxes using the  $^{234}\text{Th}/^{238}\text{U}$  disequilibria
- Chronology of organic matter and contaminants along cores