

# **2nd International Workshop on Research in Shallow Marine and Fresh Water Systems 2010**

**Procedia Earth and Planetary Science Volume 4**

**Milazzo, Sicilia, Italy  
3 – 10 October 2010**

**Editors:**

**F. Italiano**

**ISBN: 978-1-62748-788-7**

**Printed from e-media with permission by:**

Curran Associates, Inc.  
57 Morehouse Lane  
Red Hook, NY 12571



**Some format issues inherent in the e-media version may also appear in this print version.**

Copyright© by Elsevier B.V.  
All rights reserved.

Printed by Curran Associates, Inc. (2014)

For permission requests, please contact Elsevier B.V.  
at the address below.

Elsevier B.V.  
Radarweg 29  
Amsterdam 1043 NX  
The Netherlands

Phone: +31 20 485 3911  
Fax: +31 20 485 2457

<http://www.elsevierpublishingsolutions.com/contact.asp>

**Additional copies of this publication are available from:**

Curran Associates, Inc.  
57 Morehouse Lane  
Red Hook, NY 12571 USA  
Phone: 845-758-0400  
Fax: 845-758-2634  
Email: [curran@proceedings.com](mailto:curran@proceedings.com)  
Web: [www.proceedings.com](http://www.proceedings.com)



ELSEVIER

Available online at [www.sciencedirect.com](http://www.sciencedirect.com)

SciVerse ScienceDirect

Procedia Earth and Planetary Science 4 (2011) iii

Procedia  
Earth and Planetary Science

Preface .....	1
A Marine Groundwater Spring in Stoupa, Greece: Shallow Water Instrumentation Comparing Radon and Ambient Sound with Discharge Rate C. Tsabaris, M.N. Anagnostou, D.L. Patiris, J.A. Nystuen, G. Eleftheriou, Th. Dakladas, V. Papadopoulos, A. Prospathopoulos, A. Papadopoulos, E.N. Anagnostou .....	3
Temporal Trends and Matrix-Dependent Behaviors of Trace Elements Closed to a Geothermal Hot-Spot Source (Aeolian Archipelago, Italy) M. Renzi, T. Romeo, C. Guerranti, G. Perra, F. Italiano, S.E. Focardi, V. Esposito, F. Andaloro .....	10
Study of Sediments Water Resources System of Zayanderud Dam through Area Increment and Area Reduction Methods, Isfahan Province, Iran A.H. Shafiee, M. Safamehr .....	29
Detection of Fresh and Thermal Waters over an Island with Extinct Volcanism: the Island of Salina (Aeolian Arc, Italy) F. Italiano, C. Caruso .....	39
Development of a Gas Sampling Technique for Determining Trace Elements in Submarine Volcanic Exhalations B. Merkel, N.S. Kummer, B. Planer-Friedrich, T. Pohl, M. Schipek .....	50
Submarine and Inland Gas Discharges from the Campi Flegrei (Southern Italy) and the Pozzuoli Bay: Geochemical Clues for a Common Hydrothermal-Magmatic Source O. Vaselli, F. Tassi, D. Tedesco, R.J. Poreda, A. Caprai .....	57
Continuous Monitoring of Dissolved CO <sub>2</sub> and H <sub>2</sub> S: Technical Application in the Submarine Hydrothermal System of Panarea, Italy M. Schipek, B.J. Merkel .....	74
Acoustic Signals Monitoring in Shallow Marine Waters: Technological Progress for Scientific Data Acquisition M. Zora, G. Buscaino, C. Buscaino, F. D'Anca, S. Mazzola .....	80
SMM, a New Seafloor Monitoring Module for Real-Time Data Transmission: An Application to Shallow Hydrothermal Vents F. Italiano, R. Maugeri, A. Mastrolia, J. Heinicke .....	93