

Sixth International Congress “Water, Waste and Environment” (EDE6-2017)

Africa, State of Play and Future Prospects

E3S Web of Conferences Volume 37 (2018)

Beni Mellal, Morocco
12 – 14 December 2017

Editors:

**Ahmed Boukdir
Mustapha El Mabrouki**

ISBN: 978-1-5108-6392-7

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.

This work is licensed under a Creative Commons Attribution license:
<http://creativecommons.org/licenses/by/2.0/>

You are free to:

Share – copy and redistribute the material in any medium or format.

Adapt – remix, transform, and build upon the material for any purpose, even commercial.

The licensor cannot revoke these freedoms as long as you follow the license terms.

Under the following terms:

You must give appropriate credit, provide a link to the license, and indicate if changes were made.

You may do so in any reasonable manner, but not in any way that suggests the licensor endorses you or your use. The copyright is retained by the corresponding authors.

Printed by Curran Associates, Inc. (2018)

For additional information, please contact EDP Sciences – Web of Conferences
at the address below.

EDP Sciences – Web of Conferences
17, Avenue du Hoggar
Parc d'Activité de Courtabœuf
BP 112
F-91944 Les Ulis Cedex A
France

Phone: +33 (0) 1 69 18 75 75

Fax: +33 (0) 1 69 28 84 91

contact-edps@webofconferences.org

Additional copies of this publication are available from:

Curran Associates, Inc.
57 Morehouse Lane
Red Hook, NY 12571 USA
Phone: 845-758-0400
Fax: 845-758-2633
Email: curran@proceedings.com
Web: www.proceedings.com

TABLE OF CONTENTS

FUNCTIONING OF THE PRIMARY AQUIFER RELATING TO THE MAIDER BASIN, MOROCCO: CASE OF THE ORDOVICIAN AQUIFER.	1
<i>Ben-Said E., Boukdir A., Mahboub A., Younsi A., Zitouni A., Alili L., Ikhmerdi H.</i>	
HYDROGEOLOGICAL FUNCTIONING OF THE TABLECLOTH OF THE MIDELET FURROW (HIGH MOULOYA, MOROCCO)	11
<i>Ikhmerdi H., Boukdir A., Kossir A., Alili L., Ben-Said E.</i>	
ASSESSMENT OF THE EFFECTS REJECTIONS OF FEED FISH ON WATER RESOURCES.: (OUEDOU MERRBIA, MOROCCO)	20
<i>Ouaissa Khadija, Kritihi Assia, Oumessoud Youness, Maychal Abdelaziz, Hasnaoui Mustapha</i>	
KARST GROUNDWATER VULNERABILITY MAPPING TO THE POLLUTION: CASE OF DIR SPRINGS LOCATED BETWEEN EL KSIBA AND OUAOUMANA (HIGH ATLAS, MOROCCO)	29
<i>Alili L., Boukdir A., Maslouhi M. R., Ikhmerdi H.</i>	
ASSESSMENT OF GROUNDWATER QUALITY IN THE AL- BURAYHI AND HEDRAN SUB-BASIN, TAIZ, YEMEN – A GIS APPROACH	40
<i>Naser Ramzy, El Bakkali Mohammed, Darwesh Nabil, El Kharrim Khadija, Belghyti Driss</i>	
DIAGNOSIS OF THE GHISS NEKOR AQUIFER IN ORDER TO ELABORATE THE AQUIFER CONTRACT	46
<i>Baite Wissal, Boukdir A., Zitouni A., Dahbi S. D., Mesmoudi H., Elissami A., Sabri E., Ikhmerdi H.</i>	
THEORETICAL STUDY OF THE DISSOLUTION KINETICS OF GALENA AND CERUSSITE IN AN ABANDONED MINING AREA (ZAIDA MINE, MOROCCO)	58
<i>El Alaoui Lamiae, Dekayir Abdelilah</i>	
IMPACT OF WASTEWATER FROM THE RURAL COMMUNE OF JMAA MOULBLAD ON THE PHYSICO-CHEMICAL QUALITY OF THE WATERS OF THE GROU RIVER (RABAT REGION, MOROCCO)	64
<i>Arifi Karim, Tahri Latifa, El Abid Abdallah, Hefiane Fatima Zahra, Elblidi Souad, Yahyaoui Ahmed, Fekhaoui Mohammed</i>	
STUDY OF THE TECHNICAL PERFORMANCE OF LOCALIZED IRRIGATION AND ITS ENVIRONMENTAL AND AGROECONOMIC IMPACT IN THE FIRST AREAS OF COLLECTIVE RECONVERSION AT THE IRRIGATED PERIMETER OF THE TADLA - BENI MOUSSA PERIMETER OF THE WEST – MOROCCO	73
<i>Mouradi Abdellah, Ait Yacine Zehor, El Harti Abderrazak</i>	
PUBLIC SERVICES FOR DISTRIBUTION OF DRINKING WATER AND LIQUID SANITATION IN URBAN ZONES IN MOROCCO RELEVANCE OF INTRODUCTION THE PERFORMANCE INDICATORS FOR PRESERVATION WATER RESOURCES.	81
<i>Habib Akka, Abdelhamid Bouzidi, Said Housni</i>	
NEW TUBULAR CERAMIC MEMBRANES FROM NATURAL MOROCCAN CLAY FOR MICROFILTRATION APPLICATION	93
<i>Ait Taleb A., El Baraka N., Saffaj N., Lahnifli A., Mamouni R., Fatni A., El Hammadi A., El Qacimi N.</i>	
ADSORPTION OF CR (III) FROM AQUEOUS SOLUTION BY TWO FORMS OF A SUPERABSORBANT POLYMER : PARAMETRIC STUDY AND EFFECT OF ACTIVATION MODE	102
<i>Ouass A., Essaadaoui Y., Kadiri L., Lebkiri I., Lafreme C., Cherkaoui M., Lebkiri A., Rifi E. H.</i>	
ADSORPTION OF AN ANIONIC DYE ON A NOVEL LOW-COST MESOPOROUS ADSORBENT: KINETIC, THERMODYNAMIC AND ISOTHERM STUDIES	110
<i>Msaad Asmaa, Belbahloul Mounir, Zouhri Abdeljalil</i>	
ASSESSMENT OF LEACHATES FROM UNCONTROLLED LANDFILL: TANGIER CASE STUDY	119
<i>Elmaghnougi I., Afilal Tribak A., Maatouk M.</i>	
CHARACTERIZATION OF PYROLYSIS PRODUCTS DERIVED FROM THREE BIOLOGICAL WASTES AND THEIR EFFECT ON PLANT GROWTH AND SOIL WATER RETENTION	129
<i>Bouqbis Laila, Werner Koyro Hans, Kammann Claudia, Zohra Ainhout Lalla Fatima, Boukhalef Laila, Cherif Harrouni Moulay</i>	
KINETIC STUDIES OF ADSORPTION OF CU (II) FROM AQUEOUS SOLUTION BY CORIANDER SEEDS (CORIANDRUM SATIVUM)	138
<i>Kadiri L., Lebkiri A., Rifi E. H., Ouass A., Essaadaoui Y., Lebkiri I., Hamad H.</i>	

OPTIMIZATION AND CHARACTERIZATION OF GELATIN AND CHITOSAN EXTRACTED FROM FISH AND SHRIMP WASTE	145
<i>M Ait Boulahsen, H Chairi, A Laglaoui, A Arakrak, S Zantar, M Bakkali, M Hassani</i>	
PHYSICO-CHEMICAL AND BACTERIOLOGICAL CHARACTERIZATION OF RAW SEWAGE FROM THE MEKNES REGION MOROCCO	153
<i>Hassan Ouallal, Hamzaoui Najia El, Mohammed Sbiti, Mohammed Machkor, Lahcen Messaoudi, Mohamed Azrou</i>	
INTEGRATING THE ENVIRONMENT IN LOCAL STRATEGIC PLANNING : GUIDELINES (CASE OF MOROCCO).....	162
<i>Benbrahim Hafsa</i>	
FROM THE PROMOTION OF BIODIVERSITY TO THE RECOVERY OF ORGANIC WASTE	171
<i>Jammoukh Mustapha, Mansouri Khalifa, Salhi Bachir</i>	
CLIMATE CHANGE IMPACT ON RAINFALL: HOW WILL THREATEN WHEAT YIELD?	180
<i>Tafoughalti K., El Faleh E. M., Moujahid Y., Ouargaga F.</i>	
ANALYSIS OF ENVIRONMENTAL IMPACTS OF RENEWABLE ENERGY ON THE MOROCCAN ELECTRICITY SECTOR: A SYSTEM DYNAMICS APPROACH	187
<i>Chentouf M., Allouch M.</i>	
THE CLIMATE CHANGES IN THE SUB-BASIN OF THE OUM ER RBIA CENTRAL AND THE IMPACT ON THE SURFACE WATERS.....	198
<i>Echakraoui Zhour, Boukdir Ahmed., Aderaju Olaide., Hassan Ben – Saïd El, Zitouni Abdelhamid., El Maslouhi Rachid, Guerner Dias António</i>	
RADIATIVE FORCING OF THE DESERT AEROSOL AT OUARZAZATE (MOROCCO)	212
<i>Tahiri Abdelouahid, Diouri Mohamed</i>	
HYDROLOGICAL AND HYDROCLIMATIC REGIMES IN THE OUERGHA WATERSHED	222
<i>Msatef Karim, Benaabidate Lahcen, Bouïgnane Aziz</i>	
MODELLING SOIL SALINITY IN OUED EL ABID WATERSHED, MOROCCO	233
<i>Mouatassime Sabri El, Boukdir Ahmed, Karaoui Ismail, Arioua Abdelkrim, Messlouhi Rachid, El Amrani Idrissi Abdelkhalek</i>	
QUANTIFICATION OF SOIL LOSS IN VARIOUS LITHOLOGICAL AREAS OF THE WESTERN MIDDLE ATLAS CENTRAL: APPLICATION TO THE RAS-ELMA, TAMELALET AND SEBAB WATERSHED (TIGRIGRA WATERSHED, MOROCCO)	242
<i>Achiban Hassan, Taous Ali, El-Khantoury Ismail, El Mderssa Mohamed, Amechrouq Ali</i>	
ESTIMATION OF PARTICLE MATERIAL AND DISSOLVED FLOWS DURING FLOODS IN THE INAOUENE WATERSHED. (NORTHEAST OF MOROCCO)	250
<i>Sibari Hayat, Haïda Souad, Foutlane Mohamed</i>	
FLOOD RISK MANAGEMENT IN THE SOUSS WATERSHED.....	257
<i>Bouaakkaz Brahim, El Abidine El Morjani Zine, Bouchaou Lhoussaine, Elhimri Hamza</i>	
APPLICATION OF ELECTRICAL GEOPHYSICS TO THE RELEASE OF WATER RESOURCES, CASE OF AIN LEUH (MOROCCO)	268
<i>Zitouni A., Boukdir A., El Fjiji H., Baïte W., Ekouele Mbaki V. R., Ben Saïd H., Echakraoui Z., Elissami A., El Maslouhi M. R.</i>	
CONTRIBUTION OF GRAVITY DATA AND SENTINEL-1 IMAGE FOR STRUCTURAL MAPPING. CASE OF BENI MELLAL ATLAS AND BENI MOUSSA PLAIN (MOROCCO).....	285
<i>Boutirame Ikram, Boukdir Ahmed, Akhssas Ahmed, Boutirame Fatima, Manar Ahmed, Aghzzaf Brahim</i>	
APPLICATION OF THE ELECTRICAL (GEOPHYSICAL) METHOD FOR THE IDENTIFICATION OF THE SEALED BEVEL IN THE COASTAL REGION OF WALIDIA PROVINCE OF EL JADIDA – MOROCCO.....	307
<i>Elfjiji H., Boukdir A., Zitouni A.</i>	
SOLAR SYSTEM DESIGN FOR WATER PUMPING.....	321
<i>Abdelkader Hadidi, Mohammed Yaichi</i>	
MODELING AND SIMULATION OF THE SHADING EFFECT ON THE PERFORMANCE OF A PHOTOVOLTAIC MODULE IN THE PRESENCE OF THE BYPASS DIODE.....	330
<i>Zebiri Mohamed, Mediouni Mohamed, Idadoub Hicham</i>	
Author Index	