

# Liste des publications scientifiques Cristian Barca

## 2010-2015

Publications : Articles premier auteur dans des revues internationales ACL : **4** ;  
Ouvrages scientifiques d'audience internationale : **1** ;  
Communications dans des congrès internationaux avec actes : **10**.

Domaines : Traitement des Eaux, des Déchets et des Sols ; Valorisation des Eaux et des Déchets Organiques ; Valorisation de Coproduits Industriels.

Mots clés : Procédés physico-chimiques ; Bioprocédés ; Biogaz ; Filtration ; Adsorption ; Précipitation ; Fermentation ; Modèles hydrodynamiques ; Modèles cinétiques.

### ARTICLES PUBLIES DANS DES REVUES INTERNATIONALES AVEC COMITE DE LECTURE (ACL)

- [1] **Barca C.**, Soric A., Ranava D., Giudici-Ortoni M-T, Ferrasse J-H., 2015. Anaerobic biofilm reactors for dark fermentative hydrogen production from wastewater : A review. *Bioresource Technology* 185, 386-398. DOI : 10.1016/j.biortech.2015.02.063
- [2] **Barca C.**, Meyer D., Liira M., Drissen P., Comeau Y., Andres Y., Chazarenc F., 2014. Steel slag filters to upgrade phosphorus removal in small wastewater treatment plants : Removal mechanisms and performance. *Ecological Engineering* 66, 214-222. DOI : 10.1016/j.ecoleng.2014.03.065
- [3] **Barca C.**, Troesch S., Meyer D., Drissen P., Andres Y., Chazarenc F., 2013. Steel slag filters to upgrade phosphorus removal in constructed wetlands : two years of field experiments. *Environmental Science & Technology* 47(1), 549-556. DOI : 10.1021/es303778t
- [4] **Barca C.**, Gérente C., Meyer D., Chazarenc F., Andrès Y., 2012. Phosphate removal from synthetic and real wastewater using steel slags produced in Europe. *Water Research* 46(7), 2376-2384. DOI : 10.1016/j.watres.2012.02.012

### OUVRAGES SCIENTIFIQUES D'AUDIENCE INTERNATIONALE (OS)

- [1] Chazarenc F., Meyer D., **Barca C.**, Andrès Y., Gérente C., Le Coq L., Reboul M., Troesch S., Esser D., Drissen P., Rustige H., Rex M., Fixaris M. *Using slag as sorbent to remove phosphorus from wastewater. Final report*. RFCS Publications, European Commission, pages 101, Brussels, 2014. ISBN 978-92-79-35036-8 ; DOI : 10.2777/59366

COMMUNICATIONS INVITEES DANS DES CONGRES INTERNATIONAUX AVEC ACTES  
ET COMITE DE SELECTION SUR LE TEXTE COMPLET (INV-C-ACTI)

- [1] **Barca C.**, Troesch S., Meyer D., Drissen P., Andres Y., Chazarenc F. **(keynote)**. *Steel slag filters to upgrade phosphorus removal in small wastewater treatment plants : two years of field experiments in France*. 13<sup>th</sup> International Conference on Wetland Systems for Water Pollution Control. 25-29 November 2012, Perth, Australia, International Water Association (IWA). **Full paper in proceedings (10 pages)**.

COMMUNICATIONS ORALES DANS DES CONGRES INTERNATIONAUX AVEC ACTES  
ET COMITE DE SELECTION SUR LE TEXTE COMPLET (C-ACTI)

- [1] **Barca C.**, Chazarenc F., Gérente C., Andrès Y., Drissen P. *The use of slag as a sorbent to treat wastewater in Europe*. 6<sup>th</sup> European Slag Conference EUROSLAG 2010. 20-22 October 2010, Madrid, Spain. **Full paper in proceedings (10 pages)**.

COMMUNICATIONS ORALES DANS DES CONGRES INTERNATIONAUX AVEC ACTES  
ET COMITE DE SELECTION SUR LE RESUME (R-ACTI)

- [1] **Barca C.**, Ranava D., Ferrasse J-H., Giudici-Ortoni M-T, Soric A. Dark fermentative hydrogen production in an anaerobic packed bed biofilm reactor. *ECCE10 + ECAB 3 + EPIC 5*, 27 Sept - 1 Oct. 2015, Nice, France.
- [2] **Barca C.**, Ranava D., Ferrasse J-H., Giudici-Ortoni M-T, Soric A. Fermentative hydrogen production from wastewater using a coculture of *Clostridium acetobutylicum* and *Desulfovibrio vulgaris* in upflow anaerobic biofilm reactors. *Focus on Frontiers in Industrial Biotechnology SCI London*, 17-19 Nov. 2014, London, UK.
- [3] **Barca C.**, Meyer D., Troesch S., Gérente C., Andrès Y., Chazarenc F. Steel slag filters to upgrade phosphorus removal in constructed wetlands - main factors controlling removal efficiency. *5<sup>th</sup> International Symposium on Wetland Pollutant Dynamics and Control, WETPOL 2013*. 13-17 Oct. 2013, Nantes, France. **Extended abstract in proceedings (2 pages)**.
- [4] **Barca C.**, Troesch S., Meyer D., Robinet A., Esser D., Andrès Y., Chazarenc F. *The use of steel slag filters for upgrading phosphorus removal from constructed wetlands : full scale experiments in France*. Joint Meeting of Society of Wetland Scientists, Wetpol and Wetland Biogeochemistry Symposium. 3-8 July 2011, Prague, Czech Republic. **Extended abstract in proceedings (1 page)**.
- [5] Meyer D., Liira M., **Barca C.**, Andrès Y., Chazarenc F. *The use of slag filters for upgrading phosphorus removal from constructed wetlands : lab scale column experiments*. Joint Meeting of Society of Wetland Scientists, Wetpol and Wetland Biogeochemistry Symposium. 3-8 July 2011, Prague, Czech Republic. **Extended abstract in proceedings (1 page)**.

COMMUNICATIONS PAR AFFICHE DANS DES CONGRES INTERNATIONAUX AVEC ACTES ET COMITE DE SELECTION SUR LE TEXTE COMPLET (AFF-C-ACTI)

- [1] Meyer D., **Barca C.**, Drissen P., Rex M., Andres Y., Chazarenc F. *Slag filters for upgraded phosphorus removal from constructed wetlands : two years of lab scale column experiments*. 13<sup>th</sup> International Conference on Wetland Systems for Water Pollution Control. 25-29 November 2012, Perth, Australia, International Water Association (IWA). **Full paper in proceedings (8 pages)**.
- [2] **Barca C.**, Meyer D., Gérente C., Andrès Y., Troesch S., Chazarenc F. *The use of steel slag as a substrate to treat wastewater : an integrated approach*. 13<sup>th</sup> International Waste Management and Landfill Symposium. 3-7 October 2011, Cagliari, Italy. **Full paper in proceedings (8 pages)**.

COMMUNICATIONS PAR AFFICHE DANS DES CONGRES INTERNATIONAUX AVEC ACTES ET COMITE DE SELECTION SUR LE RESUME (AFF-R-ACTI)

- [1] **Barca C.**, Gérente C., Meyer D., Andrès Y., Chazarenc F. *Steel slag produced in Europe as potential filter media for phosphorus removal from wastewater*. 12<sup>th</sup> International Conference on Wetland Systems for Water Pollution Control. 4-8 October 2010, Venice, Italy, International Water Association (IWA). **Extended abstract in proceedings (2 pages)**.

COMMUNICATIONS ORALES DANS DES CONGRES NATIONAUX AVEC COMITE DE SELECTION SUR LE RESUME (R-COMN)

- [1] **Barca C.**, Ranava D., Ferrasse J-H., Giudici-Orticoni M-T, Soric A. *Fermentative hydrogen production using a co-culture of C. acetobutylicum and D. vulgaris : an interdisciplinary approach from batch to continuous flow biofilm reactors*. *Junior Scientists Microbiology Meeting of Marseille (JSM3)*, 28-29 May 2015, Marseille, France.