Name	Eric D. van Hullebusch
Gender	Male
Year of birth	1975
Nationality	French
Civil Status	Married
Present position	Full Professor of Biogeochemistry of Engineered Ecosystems

Prof. Eric D. van Hullebusch
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EDUCATION

2012	- Habilitation degree in Environmental Sciences (Université Paris-Est – France)
1999 – 2002	- PhD degree in Aquatic Chemistry and Microbiology (Université de Limoges – France)
1998 - 1999	- MSc degree in Aquatic Chemistry and Microbiology (Université de Poitiers – France)
1997 – 1998	- Master degree in Environmental Chemistry (Université de Limoges – France)
1994 – 1997	- BSc degree in Biology and Chemistry (Université de Limoges – France)

EMPLOYMENT RECORD

2018 - present	- Full Professor of Biogeochemistry of Engineered Ecosystems (UPC/IPGP –Paris – France)
2016 – 2018	- Full Professor of Environmental Science and Technology (IHE Delft Institute for Water Education – Delft – the Netherlands)
2005 – 2016	- Associate Professor in Biogeochemistry of Engineered Ecosystems (Université Paris-Est (now Université Gustave Eiffel– France)
2004 – 2005	- Assistant Professor (Université de Limoges – France)
2002 – 2004	- Marie Curie Post-doctoral Researcher (Wageningen University and Research - the Netherlands)
1999-2002	- PhD student (Université de Limoges – France)

MAIN DISCIPLINE / SPECIALISATION

- Investigation of the role of microbial organisms on the weathering of materials (concrete sewer pipe, basaltic glass) and bioleaching of hazardous solid wastes (coal fly ashes, metallurgical waste or electronic waste) for base, precious and critical elements recovery.
- Study of metals (e.g. Cd, Pb, Zn, Ni, Co, Cr) and metalloids (Se, Te) biogeochemistry in engineered ecosystems (e.g. bioreactors) mainly dedicated to wastewater treatment for pollution control and resource recovery
- Contaminated sites and soils (bio)remediation (organic contaminants removal by soil washing and treatment of soil washing solution by implementing chemical and biological processes)

MOST IMPORTANT PROJECTS

On-going

2020-2024 : Coordinator of the EraMin2 project (EU co-fund project) : Bio-assisted Closed loop recycling of E-Mobility Metals from waste PCBs and Li-Ion Batteries (BaCLEM). Budget of 866 k€. Partners i) Institut de Physique du Globe de Paris, ii) Suleyman Demirel University (SDU) (Turkey), iii) Université de Liège (Belgium), iv) EXITCOM RECYCLING (Turkey), v) SYNGULON (Belgium). Funded by ANR, Tubitak and SPW-Wallonia

2019-2023 : Coordinator of the EraMin2 project (EU co-fund project) : Siderophores assisted Biorecovery of Technology Critical Elements (TCEs): Gallium (Ga), germanium (Ge) and indium (In) from end-of-life products (SIDEREC). Budget of 835 k€. Partners i) Institut de Physique du Globe de Paris, ii) Universidad Catolica del Norte (Chile), iii) Helmholtz-Zentrum Dresden-Rossendorf (Germany), iv) ASA Spezialenzyme GmbH (Germany). Funded by ANR, CONICYT and BMBF / Juelich

2020-2024 : Co-coordinator of an IPGP-BRGM project entitled : Élucidation des facteurs contrôlant la cinétique d'oxydation du manganèse au cours du traitement d'exhaures de mine / Elucidation of the factors controlling manganese oxidation kinetics during the treatment of coal mine water

2021-2025: Co-PI and Work package leader of the H2020 PROMISCES project (Preventing Recalcitrant Organic Mobile Industrial chemicalS for Circular Economy in the Soil-sediment-water system), Budget of 12 000 k€. https://cordis.europa.eu/project/id/101036449

2022-2024 co-PI EcosSud project France-Chili Biorecovery of Technology Critical Elements: Gallium (Ga), germanium (Ge) and indium (In) from Chilean tailings in partnership with Universidad Católica del Norte (Antofagasta, Chile) Budget: 10 k€

2023-2025 co-PI of the MyTiger France-Malaysie project (2023-2024) Selective two- step bioleaching of gold from e-waste and gold nugget recovery from pregnant bioleach solutions by autonomous iron/palm shell microbots in partnership with Universiti Teknologi MARA (UiTM) (budget 10 k€)

2023-2027 Coordinator of the Industrial chair Circular Economy and critical metals – Biometallurgy for critical metals recovery (BioMetCrit) (budget 500 k€) PIA4 ANR project

2023-2026 co-PI of the PRIMA project Future-proofing the Mediterranean agri-food chain through integrated and circular management of contaminant-safe water, nutrients and bioresources (MedInCircle) in partnership with Université de Poitiers (France), University of Naples Federico II (Italy), Istanbul Medeniyet Üniversitesi (IMU) and Izmir Institute of Technology (IZTECH) (Turkey) and National Research Centre (NRC) (Egypt). Budget of 980 k€

2024-2027 co-PI of the Gesipol project : Dépollution sur site des sols pollués par des PFAS : de l'ExtRaction à l'aide de MoUsse et de solvant au Traitement des Eaux usées (PERMUTE) in partnership with Colas Environnement, BRGM, Renualt Budget 780 k€ financed by ADEME

2023-2027 co-investigator of the ANR Project COLlOidS control the environmental fate of redox- Sensitive trAce eLements (COLOSSAL) in partnership with Université de Rennes 1 (France) Budget 500 k€ financed by ANR

Completed

2016-2019 : Co-PI on the CEFRIPRA project (France-India partnership) : Assessment of CHromium Release from sukinda mining Overburden: an IsoTopic, chemical, physical and microbiological study (CHROmITe). Budget of 130 k€. Partners : i) Indian Institute of Science, Karnataka, Bangalore Urban District, ii) Institut de Physique du Globe de Paris, Paris, iii) Université Paris-Est, iv) Université d'Orsay).

2015-2019: Co-PI of the European Joint Doctorate (EJD) project : Advanced Biological Waste-to-Energy Technologies (ABWET). Total Budget 3918 k€. Partners : i) UNESCO-IHE (The Netherlands), ii) Université Paris-Est (France), ii) University of Cassino and Southern Lazio (Italy), iv) Tampere University of Technology(Finland). Project funded by the EU H2020 framework programme. (http://www.internationaldoctorate.unicas.it/abwet/).

2010-2018 : Co-PI of the Erasmus Mundus Joint Doctorate (EMJD) project The Environmental Technologies for Contaminated Solids, Soils and Sediments (ETeCoS^3). Total Budget 7000 k€. Partners : i) UNESCO-IHE (The Netherlands), ii) Université Paris-Est, ii) University of Cassino and Southern Lazio (Italy). Project funded by the EU Erasmus Mundus Agency (http://www.internationaldoctorate.unicas.it/).

2010-2016 : Co-PI of programme SDCC/AIT – France Network (France/Thaïlande) : Sustainability issues due to coal ash from coal fired power plants. Total Budget total 35 k€. Partners i) Université Paris-Est (France), ii) Asian Institute of Technology (Bangkok, Thailand), iii) La Salle University (Manilla, Philippines).

2010-2014 : Coordinator of the IRSES project : Mining wastes bio/weathering, pollution control and monitoring (MinPollControl). Budget total 158 k€. Partners : i) Univeristé paris-Est (France), ii) UNESCO-IHE (The Netherlands), iii) Universidade Federal de Minas Gerais (Brazil), iv) Universidade Estadual de Montes Claros (Brazil). Project funded by the EU (FP7 programme).

2002-2004 : PI of the Marie Curie Individual project: Optimization of anaerobic granular sludge reactors: Speciation, Bioavailability and Dosing strategies of trace metals. Total Budget 158 k€ for 24 months. Wageningen University (The Netherlands)

NUMBER OF STUDENTS SUPERVISED

37 MSc students
17 PhD students as co-promotor
12 PhD students as main promotor

SELECTED PUBLICATIONS

More than 275 peer-reviewed papers published since 2002, about 13700+ citations, h-index = 61
https://www.scopus.com/authid/detail.uri?origin=AuthorProfile&authorId=56495689700

2002

1. **van Hullebusch E.D.**, Chazal Ph. M. and Deluchat V. (2002), Influence of phosphonic acids and EDTA on bacterial copper toxicity, *Toxicological & Environmental Chemistry*, 82 (1-2), 75-91.

2. **van Hullebusch E.D.**, Deluchat V., Chazal Ph. M. and Baudu M. (2002), Environmental impact of two successive chemical treatments in a small shallow eutrophied lake: (I) case of aluminium sulfate, *Environmental Pollution*, 120 (3), 617-626.

3. **van Hullebusch E.D.**, Deluchat V., Chazal Ph. M. and Baudu M. (2002), Environmental impact of two successive chemical treatments in a small shallow eutrophied lake: (II) case of copper sulfate, *Environmental Pollution*, 120 (3), 627-634.

2003

4. **van Hullebusch E.D.**, Auvray F., Deluchat V., Chazal Ph.M and Baudu M. (2003), Phosphorus fractionation and short term mobility in the surface sediment of a shallow polymictic lake treated with low dose of alum (Courtille lake, France), *Water, Air, and Soil Pollution*, 146 (1-4), 75-91.

5. **van Hullebusch E.D.**, Auvray F., Bordas F., Deluchat V., Chazal Ph. M and Baudu M., (2003), Role of organic matter on copper mobility in a polymictic lake following copper sulfate treatment (Courtille lake, France), *Environmental Technology*, 24 (6), 787-796.

6. **van Hullebusch E.D.**, Chatenet Ph., Deluchat V., Chazal Ph. M., Froissard D., Botineau M., Ghestem A. and Baudu M., (2003), Copper fate in a reservoir ecosystem following copper sulfate treatment (St Germain les Belles, France), *Water, Air, and Soil Pollution*, 150 (1-4): 3-22.

7. **van Hullebusch E.D.**, Zandvoort M.H. and Lens P.N.L., (2003), Metal immobilisation by biofilms: Mechanisms and analytical tools, *Re/Views in Environmental Science & Bio/Technology*, 2 (1), 9-33.

8. Zandvoort, M.H., Lens, P.N.L., **van Hullebusch E.D.**, Lettinga, G. (2003), Effect of Cobalt and Nickel Speciation on the Performance of Methanogenic Biofilms, *Soil & Sediment Contamination* 12 (5), 679-680.

9. **van Hullebusch E.D.**, Auvray, F., Combrouze, Ph., Deluchat, V., Chazal, Ph., Baudu, M. (2003), Study of the copper and aluminium fate following treatment of shallow eutrophic lake: Courtille lake (Creuse, France) / [Etude du devenir et de la mobilité du cuivre et de l'aluminium utilisés pour le traitement des plans d'eau eutrophes. Cas du lac de Courtille (Creuse, France)], *Techniques - Sciences - Méthodes* (10), 66-74.

2004

10. Osuna M.B., **van Hullebusch E.D.**, Zandvoort M.H., Iza J. and Lens P.N.L., (2004), Effect of cobalt sorption on metal speciation in Anaerobic Granular Sludge, *Journal of Environmental Quality*, 33 (4), 1256-1270.

11. **van Hullebusch E.D.**, Zandvoort M.H. and Lens P.N.L., (2004), Nickel and Cobalt sorption on anaerobic granular sludges: kinetic and equilibrium studies, *Journal of Chemical Technology & Biotechnology*, 79 (11), 1219-1227.

2005

12. **van Hullebusch E.D.**, Utomo S., Zandvoort M.H. and Lens P.N.L., (2005) Comparison of three sequential extraction procedures to describe metal fractionation in anaerobic granular sludges, *Talanta*, 65 (2), 549-558.

13. **van Hullebusch E.D.**, Peerbolte A., Zandvoort M.H. and Lens P.N.L., (2005), Sorption of cobalt and nickel on anaerobic granular sludges: isotherms and sequential extraction, *Chemosphere*, 58 (4), 493-505.

14. Zandvoort M.H., **van Hullebusch E.D.**, Peerbolte A., Golubnic S., Lettinga G. and Lens P.N.L., (2005), Influence of pH shocks on trace metal dynamics and performance of methanol fed granular sludge bioreactors, *Biodegradation*, 16 (6), 549-567.

15. Zandvoort M.H., **van Hullebusch E.D.**, Gieteling J., Lettinga G. and Lens P.N.L., (2005), Effect of sulfur source on the performance and metal retention of methanol fed UASB reactors, *Biotechnology Progress,* 21 (3), 839-850.

16. Virkutyte J., **van Hullebusch E.D.**, Sillanpää M. and Lens P.N.L., (2005), Copper and trace element fractionation in electrokinetically treated methanogenic anaerobic granular sludge, *Environmental Pollution*, 138 (3), 518-529.

17. Pevere A., Guibaud G., **van Hullebusch E.D.**, Lens P.N.L. and Baudu M., (2005), Effect of inoculum and sludge concentration on viscosity evolution of anaerobic granular sludges, *Water Science & Technology*, 52 (1-2), 509-514.

18. Tabak H.H., Lens P.N.L., **van Hullebusch E.D.** and Dejonghe V. (2005), Advances in Bioremediation of Soils and Sediments Polluted with Metals and Radionuclides. 1. Microbial Processes and Mechanisms Affecting Bioremediation of Metal Contamination and Influencing Metal Toxicity and Transport. *Re/Views in Environmental Science & Bio/Technology*, 4 (3), 115-156.

19. **van Hullebusch E.D.**, Lens P.N.L., and Tabak H.H. (2005), Advances in Bioremediation of Soils and Sediments Polluted with Metals and Radionuclides. 3. Overview of the Influence of Chemical Speciation and bioavailability on Contaminants Immobilization / Mobilization Bio-Processes, *Re/Views in Environmental Science & Bio/Technology*, 4 (3), 185-212.

2006

20. Pevere A., Guibaud G., **van Hullebusch E.D.**, Lens P.N.L. and Baudu M., (2006), Viscosity evolution of anaerobic granular sludge, *Biochemical Engineering Journal*, 27, 315-322.

21. **van Hullebusch E.D.**, Gieteling J., Zhang M., Zandvoort M.H., van Daele W., Defrancq J. and Lens P.N.L., (2006), Cobalt sorption onto anaerobic granular sludge: Isotherm and spatial localization analysis, *Journal of Biotechnology*, 121 (2), 227-240.

22. Zandvoort M.H., **van Hullebusch E.D.**, Gieteling J., Lettinga G. and Lens P.N.L., (2006), Granular sludge in full scale anaerobic bioreactors: trace elements content and deficiencies, *Enzyme and Microbial Technology*, 39 (2), 337-346.

23. Zandvoort M., **van Hullebusch E.D.**, Fermoso Gonzalez F. and Lens P.N.L. (2006), Trace metals in anaerobic granular sludge reactors: bioavailability and dosing strategies, *Engineering in Life Sciences*, 6 (3), 293-301.

24. Auvray F., **van Hullebusch E.D.**, Deluchat V. and Baudu M., (2006), Laboratory investigation of the phosphorus removal (SRP and TP) from eutrophic lake water treated with aluminium, *Water Research*, 40 (14), 2713-2719.

25. Guibaud G., **van Hullebusch E.D.** and Bordas F. (2006), Lead and Cadmium Biosorption by Extracellular Polymeric Substances (EPS) extracted from activated sludges: pH-sorption edge tests and mathematical equilibrium modeling, *Chemosphere*, 64 (11), 1955-1962.

26. Zandvoort M.H., **van Hullebusch E.D.**, Golubnic S., Gieteling J. and Lens P.N.L., (2006), Induction of cobalt limitation in methanol fed UASB reactors, *Journal of Chemical Technology & Biotechnology*, 81 (9), 1486-1495.

27. Astratinei V., **van Hullebusch E.D.** and Lens P.N.L. (2006), Fate and Bioconversion of Selenate using Anaerobic Granular Sludge, *Journal of Environmental Quality*, 35 (5), 1873-1883.

2007

28. **van Hullebusch E.D.**, Gieteling J., van Daele W., Defrancq J. and Lens P.N.L., (2007), Effect of substrate composition on physico-chemical characteristics of anaerobic granular sludge, *Biochemical Engineering Journal* 33, 168-177.

29. Pevere A., Guibaud G., **van Hullebusch E.D.** and Lens P.N.L., (2007) Determination of suitable rheological parameters to report the changes of fluidized sulphidogenic sludges properties during bioreactors operation, *Enzyme and Microbial Technology* 40 (4), 547-554.

30. Pevere A., Guibaud G., **van Hullebusch E.D.**, Boughzala W. and Lens P.N.L., (2007) Effect of Na^{+} and Ca^{2+} on the aggregation properties of anaerobic fines granular sludge. *Colloids and Surfaces A: Physicochemical and Engineering Aspects* 306, 142-149.

2008

31. Guibaud G., Bordas F., Saaid A., d'Abzac P., **van Hullebusch E.D.**, (2008) Effect of pH on Cadmium and Lead binding by Extracellular Polymeric Substances (EPS) extracted from environmental bacterial strains, *Colloids and Surfaces B : Biointerfaces* 63 (1), 48–54.

32. Lenz M., **van Hullebusch E.D.**, Hommes G., Corvini P. and Lens P.N.L. (2008), Selenate removal in methanogenic and sulfate reducing upflow anaerobic sludge bed reactors, *Water Research* 42 (8-9), 2184-2194.

33. Lopes S., Capela M.I., **van Hullebusch E.D.**, van der Veen A. and Lens P.N.L. (2008), Influence of low pH (6, 5 and 4) on nutrient dynamics and sludge characteristics of acidifying sulfate reducing granular sludge, *Process Biochemistry* 43 (11), 1227-1238.

34. Lenz M., **van Hullebusch E.D.**, Farges F., Borca C.N., Grolimund D., and Lens P.N.L. (2008), Selenium speciation assessed by X-ray absorption spectroscopy of sequentially extracted anaerobic biofilms, *Environmental Science & Technology* 42 (20), 7587-7593.

35. Bartacek J., Fermoso Gonzalez F., Baldó-Urrutia A.M., **van Hullebusch E.D.**, and Lens P.N.L. (2008), Cobalt toxicity to methylotrophic methanogenesis in anaerobic granular sludge: role of speciation, *Journal of Industrial Microbiology & Biotechnology* 35 (11), 1465-1474.

2009

36. Pevere A., Guibaud G., Gouin E., **van Hullebusch E.D.** and Lens P.N.L. (2009) Effects of physico-chemical factors on the viscosity evolution of anaerobic granular sludge, *Biochemical Engineering Journal* 43 (3), 231-238.

37. Murati M., Oturan N., **van Hullebusch E.D.**, Oturan M.A. (2009) Electro-Fenton treatment of TNT in aqueous media in presence of cyclodextrin. Application to ex-situ treatment of contaminated soil, *Journal of Advanced Oxidation Technologies* 12 (1), 29-36.

38. Guibaud G., **van Hullebusch E.D.**, Bordas F., d'Abzac P. and Joussein E. (2009) Sorption of Cd(II) and Pb(II) by exopolymeric substances (EPS) extracted from activated sludges and pure bacterial strains: Modeling of the Metal/Ligand ratio effect and role of the mineral fraction. *Bioresource Technology* 100 (12), 2959-2968.

39. Simon S., Pairo B., D'Abzac P., **van Hullebusch E.D.**, Lens P. and Guibaud G. (2009) Characterization of the Extracellular Polymeric Substances (EPS) of anaerobic granular sludges by Size Exclusion Chromatography (SEC). *Bioresource Technology* 100 (24), 6258-6268.

2010

40. *D'Abzac P.*, Bordas F., Joussein E., **van Hullebusch E.D.** and Lens P., Guibaud G. (2010) Characterization of the mineral fraction associated to extracellular polymeric substances (EPS) in anaerobic granular sludges. *Environmental Science & Technology* 44 (1), 412–418.

41. *D'Abzac P.*, Bordas F., **van Hullebusch E.D.**, Lens P. and Guibaud G. (2010) Extraction of extracellular polymeric substances (EPS) from anaerobic granular sludges: comparison of chemical and physical extraction protocols. *Applied Microbiology and Biotechnology* 85 (5), 1589-1599.

42. *Ayoub K.*, **van Hullebusch E.D.**, Cassir M., Bermond A. (2010) Application of Advanced Oxidation processes for TNT removal : A review. *Journal of Hazardous Materials* 178 (1-3), 10-28.

43. Pevere A., Guibaud G., **van Hullebusch E.D.** and Lens P.N.L. (2010) Effect of substrate feeding on viscosity evolution of anaerobic granular sludges. *Water Science and Technology* 62 (1), 132-139.

44. Sampaio R.M.M., Timmers R.A., Kocks N., André V., Duarte M.T., **van Hullebusch E.D.**, Farges F. and Lens P.N.L. (2010) Zn-Ni sulfide selective precipitation: the role of supersaturation, *Separation and Purification Technology* 74 (1), 108-118.

45. *D'Abzac P.*, Bordas F., **van Hullebusch E.D.**, Lens P., Guibaud G. (2010) Effects of extraction procedures on metal binding properties of extracellular polymeric substances (EPS) extracted from anaerobic granular sludges. *Colloids and Surfaces B : Biointerfaces* 80 (2), 161-168.

2011

46. Lenz M., **van Hullebusch E.D.**, Farges F., Nikitenko S., Corvini P.F.X., Lens P.N.L. (2011) Combined speciation analysis by XANES, IC and SPME-GC-MS to evaluate biotreatment of concentrated selenium wastewaters, *Environmental Science & Technology* 45 (3), 1067-1073.

47. *Ayoub K.*, Nélieu S., **van Hullebusch E.D.**, Labanowski J., Schmitz-Afonso I., Cassir M., Bermond A. (2011) Electro-Fenton removal of TNT from polluted water: An insight by liquid chromatography–electrospray ionization tandem mass spectrometry. *Applied Catalysis B: Environmental*, 104 (1-2), 169-176.

48. *Ayoub K.*, Nélieu S., **van Hullebusch E.D.**, Maia-Grondard A., Cassir M., Bermond A. (2011) TNT oxidation by Fenton reaction : reagent ratio effect on kinetics and early stage degradation pathways. *Chemical Engineering Journal*, 173 (2), 309-317.

2012

49. Villa-Gomez D.K., Papirio S., **van Hullebusch E.D.**, Farges F., Nikitenko S., Kramer H., Lens P.N.L. (2012) Influence of sulfide concentration and macronutrients on the characteristics of metal precipitates relevant to metal recovery in bioreactors, *Bioresource Technology*, 110, 26-34.

50. Guibaud G., Bhatia D., d'Abzac P., Bourven I., Bordas F., **van Hullebusch E.D.**, Lens P.N.L. (2012) Cd(II) and Pb(II) sorption by extracellular polymeric substances (EPS) extracted from anaerobic granular biofilms: Evidence of a pH sorption-edge. *Journal of the Taiwan Institute of Chemical Engineers*, 43 (3), 444-449.

2013

51. Kijjanapanich P., Annachhatre A.P., Esposito G., **van Hullebusch E.D.**, Lens P.N.L. (2013) Biological sulfate removal from gypsum contaminated construction and demolition debris. *Journal of Environmental Management,* 131, 82-91.

52. *Mousset E.*, Oturan N., **van Hullebusch E.D.**, Guibaud G., Esposito G., Oturan M.A. (2013) A new micelle-based method to quantify the Tween 80® surfactant for soil remediation. *Agronomy for Sustainable Development*, 33 (4), 839-846.

53. *Herisson J.*, **van Hullebusch E.D.**, Moletta-Denat M., Taquet P., Chaussadent T. (2013) Toward an accelerated biodeterioration test to understand the behavior of Portland and calcium aluminate cementitious materials in sewer networks. *International Biodeterioration and Biodegradation*, 84, 236-243.

54. *Feng L.*, **van Hullebusch E.D.**, Rodrigo M.A., Esposito G., Oturan M.A. (2013) Removal of residual anti-inflammatory and analgesic pharmaceuticals from aqueous systems by electrochemical advanced oxidation processes. A review. *Chemical Engineering Journal*, 228, 944-964.

55. *d'Abzac P.*, Bordas F., Joussein E., **van Hullebusch E.D.**, Lens, P.N.L., Guibaud, G. (2013) Metal binding properties of extracellular polymeric substances extracted from anaerobic granular sludges. *Environmental Science and Pollution Research*, 20(7), 4509-4519.

56. Bhatia D., Bourven I., Simon S., Bordas F., **van Hullebusch E.D.**, Rossano, S., Lens, P.N.L., Guibaud, G. (2013) Fluorescence detection to determine proteins and humic-like substances fingerprints of exopolymeric substances (EPS) from biological sludges performed by size exclusion chromatography (SEC). *Bioresource Technology*, 131, 159-165.

2014

57. *Yin N.-H.*, Sivry Y., Avril C., Borensztajn S., Labanowski J., Malavergne V., Lens P.N.L., Rossano S., **van Hullebusch E.D.** (2014) Bioweathering of lead blast furnace metallurgical slags by *Pseudomonas aeruginosa*. *International Biodeterioration & Biodegradation*, 86, 372-381.

58. *Seder-Colomina M.*, Morin G., Benzerara K., Ona-Nguema G., Pernelle J.-J., Esposito G., **van Hullebusch E.D.** (2014) *Sphaerotilus natans*, a Neutrophilic Iron-Related Sheath-Forming Bacterium: Perspectives for Metal Remediation Strategies *Geomicrobiology Journal*, 31 (1), 64-75.

59. *Mousset E.*, Oturan N., **van Hullebusch E.D.**, Guibaud G., Esposito G., Oturan M.A. (2014) Influence of solubilizing agents (cyclodextrin or surfactant) on phenanthrene degradation by electro-Fenton process - study of soil washing recycling possibilities and environmental impact, *Water Research*, 48, 306-316.

60. Villa-Gomez D.K., **van Hullebusch E.D.**, Maestro R., Farges F., Nikitenko S., Kramer H., Gonzalez G. and Lens P.N.L. (2014) Morphology, mineralogy and solid-liquid phase separation characteristics of Cu and Zn precipitates produced with biogenic sulfide, *Environmental Science & Technology*, 48(1), 664-673.

61. *Liotta F.*, d'Antonio G., Esposito G., Fabbricino M., Frunzo L., **van Hullebusch E.D.**, Lens P.N.L., Pirozzi F. (2014) Effect of moisture on disintegration kinetics during anaerobic digestion of complex organic substrates. *Waste Management Research*, 32, 40-48.

62. *Mousset E.*, Oturan M.A., **van Hullebusch E.D.**, Guibaud G., Esposito G. (2014) Soil washing/flushing treatments of organic pollutants enhanced by cyclodextrins and its integrated treatments: state of the art. *Critical Reviews in Environmental Sciences and Technology*, 44(7) 705-795.

63. *Herisson J.*, Guéguen-Minerbe M., van Hullebusch E.D., Chaussadent T. (2014) Behaviour of different cementitious material formulations in sewer networks. *Water Science and Technology*, 69(7), 1502-1508.

64. *Mousset E.*, Oturan N., **van Hullebusch E.D.**, Guibaud G., Esposito G., Oturan M.A. (2014) Influence of anode materials on toxicity and biodegradability of synthetic soil washing solutions containing phenanthrene and cyclodextrin during an anodic oxidation or electro-Fenton treatment. *Applied Catalysis B: Environmental*, 160-161, 666-675.

65. Ganzenko O., Huguenot D., **van Hullebusch E.D.**, Esposito G., Oturan M. (2014) Electrochemical advanced oxidation and biological processes for wastewater treatment: A review of the combined approaches, *Environmental Science and Pollution Research,* 21(14), 8493-8524.

66. *Feng L.*, Oturan N., **van Hullebusch E.D.**, Esposito G., Oturan M.A. (2014), Degradation of ketoprofen by electrochemical advanced oxidation processes: comparison of electro-Fenton and anodic oxidation processes, *Environmental Science and Pollution Research*, 21(14), 8406-8416.

67. Agnello A.C., Huguenot D., **van Hullebusch E.D.**, Esposito G. (2014) Enhanced phytoremediation: a review of low molecular weight organic acids and surfactants used as amendments, *Critical Reviews in Environmental Sciences and Technology*, 44(22), 2531-2576.

68. *Liotta F.*, Chatellier P., Esposito G., Fabbricino M., **van Hullebusch E.D.**, Lens P.N.L. (2014) Hydrodynamic mathematical modeling of aerobic plug flow and non-ideal flow reactors: a critical and historical review. *Critical Reviews in Environmental Sciences and Technology*, 44(23), 2642-2673.

69. Jayaranjan M.L.D., **van Hullebusch E.D.**, Annachhatre A.P. (2014) Reuse Options for Coal Fired Power Plant Bottom Ash and Fly Ash, *Re/Views in Environmental Science & Bio/Technology*, 13(4), 467-486.

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- Reviewers for *Journal of Environmental Quality, **Water Research**, Chemical Geology, Biotechnology and Bioengineering, **Bioresource Technology**, **Chemosphere**, Soil Science, Analytica Chimica Acta, Talanta, Journal of Biotechnology, **Journal of Hazardous Materials**, **Environmental Science and Technology**, Environmental Technology, Chemical Engineering Journal, Process Biochemistry, Biological Trace Element Research, **Reviews in Environmental Science and Bio/Technology**, Environmental Chemistry, Water Science and Technology, Water, Air and Soil Pollution, Bioprocess and Biosystems Engineering, Ecological Engineering, Revue des Sciences de l'Eau, Cement and Concrete Composites, Journal of Environmental Management, **Cement and Concrete Research**,…*
- Review editor for Frontiers Journals (Frontiers in Environmental Science / Frontiers in Microbiology / Frontiers in Earth Science) in Microbiological Chemistry and Geomicrobiology field from 2015

Editorial board memberships

- Editorial board member of *Reviews in Environmental Science and Bio/Technology from 2006 to 2018 (Springer Nature)*.

- Editorial board member of *Euro-Mediterranean Journal for Environmental Integration since* 2016 *(Springer Nature) and Chief Editor for topic for Ecotoxicology, environmental safety and bioremediation since 2020*.
- Editorial board member of *Chemistry Africa* since 2017 *(Springer Nature) and handling Editor since 2020*.
- Associate editor of *Arabian Journal of Geosciences* since 2019 (*Springer Nature*)
- Editorial board member of *Environment International* and *Heliyon Environment* since 2018 (Elsevier)
- Editorial board member of *Metals, Water, Minerals* since 2016 (MDPI AG)
- Editorial board member of *Microorganisms* since 2018 (MDPI AG)
- Review editor for Frontiers (Frontiers in Environmental Science / Frontiers in Microbiology / Frontiers in Earth Science) in Microbiological Chemistry and Geomicrobiology section from 2015 to 2019 and Frontiers in Sustainable Food Systems in Waste Management in Agroecosystems section since 2019
- Associate Editor for Frontiers in Microbiology section Microbiological Chemistry and Geomicrobiology since 2019.
- Associate Editor for Frontiers of Environmental Science & Engineering since 2023

- Handling Editor for Letters in Applied Microbiology since 2023
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Research proposals peer-review activities

H2020 Expert (EU), Agence National de la recherche (ANR) (France), Fonds de recherche du Québec – Nature et technologies (Canada), Université de Mons, Université de Liège, KU Leuven, Innoviris (Belgium), National Research Foundation (NRF) (South Africa), King Fahd University of Petroleum and Minerals (Saudi Arabia), European Science Foundation (ESF), National Science Centre (NCN) - Member of the ST10 panel - Earth sciences, (Poland), Swiss National Science Foundation (SNSF),…