Olores.org

IWA
the international water association

26-27 October 2021

Bilbao, Spain

2021

9th IWA Odour & VOC/Air Emission Conference

Olores.org

A conference organised by Olores.org:

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ODOURS IN THE ENVIRONMENT

What are odours? How are they measured? How are they controlled? How are they regulated? These and many other issues will be addressed in the *9th Odour & VOC/Air Emission Conference of the International Water Association (IWA)* that will be held this time in Bilbao (Spain), on 26 and 27 October 2021.

The IWA Odour and Air Emissions Conferences is one of the worldwide leading odour conferences. This conference will be organized for the first time by Olores.org, that has already organized 5 International Odour conferences. The last conference held by Olores.org in Santiago de Chile in 2019, hosted 180 participants from 17 different countries.

The programme for this conference focuses on analysing current issues and developments in the field of odour management and VOCs/Air Emissions. The objective for this International Conference on "Odours in the Environment" is to bring together all professionals with experience in the management, measurement and control of odours, VOCs and air emissions.

At present, there are many silos within this industry. This international conference hopes to enable the transfer of knowledge as well as provide an international platform for sharing ideas and current mechanisms, ultimately creating a more holistic approach to management. A number of specialists are participating in this year's event. Some such participants include; scientists, researchers, consultancies, public administration, plant managers, industries, etc.

Olores.org eagerly awaits and welcomes your questions and contributions, and from the Organizing Committee, we hope that this conference will be a success for everyone.

On behalf of the Organizing Committee,

Carlos Nietzsche Díaz

Olores.org

SCIENTIFIC COMMITTEE

Name	Company
Andrés Tomás, Fernando	Global Omnium
Arichabala, Hellen	IKANI Innovación Ambiental S.A
Aroca Arcaya, Germán	Pontifical Catholic University of Valparaíso
Arriaga Garcia, Sonia Lorena	IPICYT
Assal, Michael	The Odour Unit Pty Ltd
Balch, Andrew	AIR ENVIRONMENT
Barclay, Jennifer	Atmospheric Science Global
Barczak, Radoslaw	Warsaw University of Technology
Bilsen, Ilse	VITO, Flemish Institute for Technological Research -
Bokowa, Anna	Environmental Odour Consulting Corporation
Capelli, Laura	Politecnico di Milano -
Covington, James	University of Warwick
Cranshaw, Ian	Stantec
Danesh, Ehsan	Alphasense Ltd
Doñate, Silvia	DAM-Aguas
Escoffier, Christelle	Wood Group
Feilberg, Anders	Aarhus University
Frechen, Franz-Bernd	University of Kassel
Gabaldón, Carmen	Universidad de Valencia
Gallego, Eva	Universitat Politecnica de Catalunya
Galvin, Geordie	ASTUTE Environmental Consulting
Gracian, Catherine	SUEZ International
Guillot, Jean-Michel	Ecole des mines d'Alès
Higuchi, Takaya	Yamaguchi University
Keck, Margret	Agroscope
Kraakman, Bart	Jacobs
Koziel, Jacek	Iowa State University
Lafita, Carlos	Global Omnium
Lebrero Fernández, Raquel	University of Valladolid

Li, Weifang	National Key Laboratory on Environment and Odour Pollution Control of China
Liu, Dezhao	Zhejiang University
López Etxebarria, Asier	Consorcio de Aguas Bilbao-Bizkaia
Lozano Rogado, Jesús	University or Extremadura
Mannebeck, Bettina	Olfasense GmbH
Martín, María	Laboratori d'Enginyeria Química i Ambiental (LEQUIA)
McGinley, Michael	Croix Sensory, Inc.
Muñoz Torre, Raúl	University of Valladolid
Naddeo, Vincenzo	University of Salerno
Najean, Philippe	OPAM Consulting
Ormerod, Robin	Envirosuite
Paduch, Monika	Former member of Association of German Engineers
Palma, Susana	Universidade Nova de Lisboa
Piringer, Martin	Central Institute for Meteorology and Geodynamics
Quijano Govantes, Guillermo	UNAM Institute of Engineering
Ribau Domingues, Rita	Olfasense
Romain, Anne Claude	University of Liege,
Sànchez Santos, Gloria	Àrea Metropolitana Barcelona
Santos, Jane Meri	Department of Environmental Engineering
Sauco, Lidia	DAM-Aguas
Schauberger, Gunther	University of Veterinary Medicine -
Schleenstein, Gerhard	ECOTEC
Segarra, Macarena	Independent consultant
Shanahan, Imelda	TMS Environment Ltd.
Sironi, Selena	Politecnico di Milano
Sówka, Izabela	Wroclaw University of Science and Technology
Stuetz, Richard	University of New South Wales
Suffet, Mel	University of California
Valdenebro, Veronica	University of Basque Country (UPV-EHU)
van Belois, Hugo	Independent consultant
van Harreveld, Ton	Odournet Group
van Langenhove, Herman	Ghent Universiteit
Vergara, Hector	TSG

Vieira, Magnun Maciel	Federal University of Santa Catarina
Vollertsen, Jes	Aalborg University
Wang, Can	Tianjin University
Witherspoon, Jay	CH2M HILL
Winter, Peter	Thames Water Utilities Limited
Yan, Cheng	China University of Geosciences -
Zacarias, Marcela	Besten Chile
Zarra, Tiziano	University of Salerno
Zorich, Vania	TSG

ORGANIZED BY:

IWA
the international water association

LOCAL ORGANIZER

Olores.org

COLABORATORS

AMIGO

AMBIENTE ET — ODORA S.L. —

PREVIOUS CONFERENCES

OLORES.ORG ORGANIZED EVENTS

Put your brand at the heart of the biggest event held in English on odour and VOCs emission! We invite you to present your company and participate in the 9th Odour & VOC/Air Emission Conference of the International Water Association (IWA), which will take place on 26 and 27 October 2021 in Bilbao, Spain.

If you are not sure to participate or not, you can find useful the numbers of previous events organized by Olores.org:

+ 5 Conferences

+ 250 Papers and posters submitted

38 Booths

+ 750 attendees

+ 27 Countries represented

Direct Economic Impact of over €600.000

CONFERENCE

This will be the first IWA Odour Conference held in Bilbao in this series, but the second held in Spain, after Barcelona in 2008. After the success of previous events in Australia, Singapore, Spain, Brazil, USA, France (cancelled due to a Terrorist attack), Poland and China, the organization committee is excited to hold the 9th IWA conference on odours and is looking forward to welcoming you to Bilbao.

The Euskalduna Conference Centre is located in the next to the Estuary in the centre of Bilbao, the largest city in the Basque Country. The conference centre was built in the area formerly occupied by the Euskalduna shipyards. It was designed by architects Federico Soriano and Dolores Palacios and the construction of the centre began in 1994.

Bilbao is a multicultural, exciting city that is easily reachable from near and far. The city’s geographical layout lends itself to be an accessible place and is surrounded by a mountainous landscape, uniquely accessible by foot from the centre of the city within half an hour. The city has undergone major urban restructuring since the early 1990s, which have honoured the city with several awards. Previously, Bilbao was a heavily industrialized city. At present, due to its major resurgence and transformation, it has become an internationally referenced example for this type of model *the Bilbao Syndrome.

PROVISIONAL PROGRAM

The provisional agenda of the Conference can be found below. The order of the presentations corresponds to the order of abstracts arrivals. All the event will be hold in English, but a Spanish session will be organized.

As this is the provisional programme, the final programme is subject to change as the number of papers increase. As well as this, the introduction of new government guidelines surrounding COVID-19 will also shape the nature of the programme.

Please note that this is not the official list of papers. The list will be finalised once full papers have been evaluated by the Scientific Committee. The review process will determine whether papers will be presented through oral communication or a poster.

PRESENTATIONS

Policy and associated regulations for odour and air quality.

Both, R. et al.: *Limit values for odour in ambient air – A legal system applied all over Germany.*

Caimanque, D. et al.: *Lessons Learned in the Elaboration of the First Odour Regulation in Chile (Spanish only)*

Kwiatkowski, K. et al.: *Determination of hedonic odour effect based on polarity profiles.*

Larrauri, A. et al.: *Adaptation to the requirements of the best available techniques (BAT) in waste treatment in a waste treatment complex.*

Koziel, J. et al.: *Overview Odour Legislation around the world.*

Van Harreveld, T. et al.: *EN13725: New updates on the review of the Standard.*

Van Harreveld, T. et al.: *The long and winding road of CEN/TC264/WG41 developing a standard for validating instrumental odour measurement systems.*

Felisi, J.M. et al.: *New nuisance mapping standard.(Spanish only).*

Danesh, E. et al.: *IEEE P2520 – Standards for Testing Machine Olfaction Devices and Systems.*

Schauberger, G. et al.: *New International Guideline on the Assessment of Odor Exposure Using Dispersion Modelling.*

Odour/VOC measurement, monitoring&sensor technologies:

Furieri, B. et al.: *Estimating gas-side mass transfer coefficient for volatilisation inside a flux hood using computational fluid dynamics.*

Furieri, B. et al.: *Influence of portable wind tunnel operational conditions on the emission rate of an odorant compound measured over a passive liquid surface.*

Furieri, B. et al.: *Investigation of flow inside the portable wind tunnel through particle image velocimetry technique.*

Bian, Y. et al.: *Using olfactometry to evaluate odor persistency from sites emitting odor.*

Polvara, E. et al.: *Evaluation of occupational exposure risk for employees working in olfactometric analysis to odorous pollutants emitted from refineries.*

Esclapez, M.D. et al.: *Drone-based environmental odour monitoring: SNIFFDRONE.*

Bax, C. et al.: *IOMS for the real-time monitoring of odour concentration at a msw landfill.*

Cipriano, D. et al.: *First experiences for odour Proficiency Tests implementation using synthetic bench loops.*

Mifsud, J.C. et al.: *On line monitoring of Odor Unit (OU) emissions and odor sources identification, by using a new generation of gas and odors analyzers.*

De Baerdemaeker, N. et al.: *Olfascan flying lab – an innovative way of performing air quality measurements by using state-of-the-art drone technology.*

Raes, N. et al.: *The odour impact of broiler chickens – comparison of the theoretical approach with field panel measurements according to EN16841-2.*

Reimringer, W. et al.: *Field test evaluation of instrumental odour monitoring systems with a novel in-situ calibration approach.*

Scheuren, M. et al.: *First development of a gas sensor array for monitoring ammonia surface emission flux from grasslands.*

Dooms, E. et al.: *Laboratory and field study on the analyses of siloxanes in biogas by TD-GC-MS.*

Haerens, K. et al.: *Determination of volatile organic acids in odorous air samples using TD-GC-MS.Determination of volatile organic acids in odorous air samples using TD-GC-MS.*

Oliva, G. et al.: *H2Odour for the standardized sampling and characterization of odour emissions from liquids.*

Cartelle, D. et al.:*Application of coupled Eulerian and Lagrangian models in the microscale simulation of odour dispersion in the near field of wastewater treatment plants (Spanish only).*

Mesones, J. et al.: *Air purification through advanced biofiltration and monitoring of the odour impact of its emissions through sensorisation and implementation of the AIRADVANCED platform (Spanish only).*

Torres, A. et al.: *Real-time monitoring of odour emissions from a municipal solid waste management landfill using IoT early warning devices (Spanish only).*

Bootsman, S. et al.: *Odour impact analysis with eNoses in residential area.*

Guillot, J. et al.: *Main losses of sampled volatile compounds in nalophan bags: focus on sulphur compounds.*

Capelli, L. et al.: *The Italian pilot for the HORIZON 2020 D-NOSES Project: combining citizen science and dispersion modelling to identify odour sources in the municipal area of Castellanza.*

Zorich, V. et al.: *Top-down strategy: technology and big data for an odor-control master plan.*

Almarcha, D. et al.;*Application Of An Advanced System For The Monitoring Of Wwtp Odour Emissions And Benefits To Use It*

Odour/VOC perception, impact, formation and dispersion.

Piñón, J. et al.: *Improvement of odour dispersion modelling performance and capabilities using advanced continuous monitoring.*

Luckert, A. et al.: *Dispersion modelling as a tool for assessment and management of odour emissions from a wastewater treatment plant.*

Zhang, Y. et al.: *Impact assessment of odor nuisance and health risk and its variations from landfill surface.*

Meng, J. et al.: *Characterization and health risk assessment of exposure to odorous pollutants emitted from the organophosphorus pesticide field.*

Capelli, L. et al.: *Micrometeorological methods for the indirect quantification of odour emissions.*

Antón, A. et al.: *Odor cost in the Basque Country (Spanish only).*

Cangialosi, F. et al.: *A procedure to forecast odour impacts from an operative landfill based on daily data as a useful tool to minimize the nuisances on receptors.*

Odour/VOC abatement, mitigation and neutralization.

Sun, Z. et al.: *Effects of exogenous acylated homoserine lactones for biofilm formation in biofilters.*

Liu, D. et al.: *Removal of livestock odorants using dielectric barrier discharge reactor and byproducts formation.*

Liu, D. et al.: *Interactions of the removal of organic odorant and inorganic odorants in biotrickling filters.*

Snidar, R. et al.: *Use of multistage hybrid technology for the treatment of emissions that present critical issues in terms of variations of the contained mixtures and volatility.*

Wang, C. et al.: *Effect of quorum quenching on the biomass accumulation during VOCs biofiltration.*

Balfagón, J. et al.: *New chemical adsorbents that are more environmentally friendly and efficient (Spanish only).*

Webb, D.S. et al.: .*Navigating the complex landscape of biological odour control solutions for waste water applications*

Janga, K. et al.:*Dynamic modeling and evolutionary optimization of a biofilter for biodegradation of ammonia and hydrogen sulphide.*

Lamprea Pineda, P.A. et al.: *Mesophilic and thermophilic biofiltration of N,N-dimethylformamide: long-term performance evaluation and microbial communities' evolution.*

Senatore, V. et al.: *Advanced photo-biotechnology for the simultaneous control of VOCs, odours and GHGs emissions in municipal solid waste treatment plants.*

Valverde Ortiz, J.L. et al.: *Study of odor reduction in sewage sludge by application of lime, in Arequipa - Peru.*

Prado Rubianes, O. et al.: *Technical and economic optimization of the deodorization of a coastal WWTP through biological processes.*

Kraakman, B. et al.: *Overcoming bioavailability limitations for the treatment of low concentration gases such as odours and indoor air pollutants.*

González-Martín, J. et al.: *Latex-based biofilms for indoor air purification.*

Gracian, C. et al.:*Odorous VOC removal by an advanced water scrubber at cannes WWTP.*

Witherspoon, J. et al.: *An odour attribution study to determine the relative contribution from three facilities for the development of real-time odour monitoring.*

Astigarraga Sastre, I. et al.: *Odour reduction in a sanitation system with high salt intrusion (Spanish only).*

Calderon, A. et al.: *Case study of the reduction of the impact of offensive odour emissions at the Aguas Claras domestic wastewater treatment plant (Spanish only).*

Odour/VOC from waste water, sewer systems and livestock.

Kumar, S. et al.: *Development of point-of-use filtration system for harvested rainwater using natural indigenous material.*

Furieri, B. et al.: *Gaussian and computational fluid dynamics dispersion modelling of odorous compounds from wastewater treatment ponds nearby urban areas.*

Vilarroig, J. et al.: *Innovative odour impact assesment for WWTP using experimental and dispersion modelling techniques.*

Macías, A. et al.: *CFD modelling of odour impact on urban microscale: case study investigating a wastewater treatment plant.*

Valverde Ortiz, J.L. et al.: *Study for odor reduction in a wastewater treatment plant by application of ferric chloride and/or sodium hypochlorite in Arequipa, Peru.*

Invernizzi, M. et al.: *Experimental study about the influence of wind velocity and temperature on the emission rate of VOCs from liquid surface.*

Caretti, C. et al.: *An automated and self-moving prototype for GHGs emission and aeration efficiency assessment in WRRFs.*

Keck, M. et al.: *Odour concentration of various emitting area sources from cattle farms.*

Zapata Pinedo, J.E. et al.: *Management plan for the control of offensive odours in the sewage system of the city of Cartagena Indias, Colombia (Spanish only).*

Air emissions and sustainable solutions for waste handling

Jafar, H.A. et al.: *Interpretation of particulate matter concentration at kerbside, urban and rural sites, Palestine.*

Frunella, S. et al.: *Citizen science for odour impact assessment: retro trajectories analysis and comparison for different pilot cases in D-Noses European project.*

Schleenstein, G. et al.: *Contributions on the use of citizen panelists in odour studies.*

***Hobday, J. et a*l.:** *Automate Interior Vocs from ambient and material sourcesor Vocs from ambient and material sources*

POSTERS

Yman, L et. al.: *Environmental gas sniffing pulse mode odor index basic olfactory intensity I0 relationship ——research for Weber Fischer formula and molecular weight*

Liu, D. et al.: *Ammonia reduction and recovery through wet scrubber/biotrickling filter combined with microalgae system.*

Liu, D. et al.: *Photocatalytic oxidation of odorous compounds using Zr-based MOF@TiO2 core-shell structured particles.*

Luckert, A. et al.: *H2S odour management in a sewer pumping well through air quality measurement and dispersion modelling.*

Mohammedi, H. et al.: *Improvement strategy for reducing the environmental impact of a wastewater treatment plant.*

REGISTRATION FEE

Due to the COVID19 pandemic situation, it is currently unclear whether the event will be held virtually or face to face. For now, a hybrid event has been proposed that will hopefully enable full participation accessibility globally, no matter the circumstances at the time.

Conference	Early bird registration (until 31/07/2021)		Ordinary registration (from 01/08/2021)	
	IWA member	Non IWA	IWA member	Non IWA
On-site attendees from high income countries	499 €	619 €	579 €	699 €
On-site attendees from low income countries	399 €	519 €	479 €	599 €
On-line attendees	120 €	130 €	150 €	160 €

The registration fee **does not include dinner**. IWA Young Water Professionals ask the organization for discount.

Register here: https://olores.org/en/iwaodours2021 **(not open yet)**

SPONSORSHIP

This conference is an excellent opportunity to share and exchange experiences and knowledge, and we invite your company to be part of this event:

Main Sponsorship
4999€

On this conference, there will be only one main sponsor that includes the next benefits:

- Access to the **list of participants** in advance.
- **Booth** with priority of assignment in the exhibition area.
- A **full-colour advertisement page** in the programme of the Conference.
- The **logo** of your business will be included in the sponsorship list on the **Conference programme**.
- The **logo** of your business will appear in a noted place on the **Conference web page**.
- A 30-second **video** recorded **advertisement** displayed during the event **a minimum of 6 times**.
- A **personalized interview** recorded during the event.
- **10 full registration** to the Conference. It includes lunch, coffee breaks and gala dinner.

Would you like to be a Main Sponsor? Contact us here!

Gold Sponsorship
3999€

The Gold Sponsorship package includes the following benefits:

- Access to the **list of participant**s in advance.
- **Booth** with assignment priority in the exhibition area (after the Main Sponsor).
- A **half-page of full-colour advertisement** in the programme of the Conference.

- The **logo** of your business will be included in the sponsorship list on the Conference **programme**.
- The **logo** of your business will appear on the Conference **webpage**.
- A 20-second **video** recorded **advertisement** displayed during the event **a minimum of 6 times**.
- A **personalized interview** recorded during the event.
- **8 full registration** to the Conference. It includes lunch, coffee breaks and gala **dinner**.

Would you like to be a Gold Sponsor? Contact us here!

Silver Sponsorship
1999€

The Silver Sponsorship package includes the following benefits:

- Access to the **list of participants** in advance.
- **Booth** with assignment priority in the exhibition area (after superior sponsors, in order of registration)
- The **logo** of your business will be included in the sponsorship list on the Conference **programme**.
- The **logo** and name of your business will appear on the Conference **webpage**.
- A 10-second **video** recorded **advertisement** displayed during the event **a minimum of 6 times**.
- A **personalized interview** recorded during the event.
- **4 full registration** to the Conference. It includes lunch, coffee breaks and gala **dinner**.

Would you like to be a Silver Sponsor? Contact us here!

BOOTHS

The exhibition area of booths is located in the adjoining foyer next to the conference room, where the reception and coffee breaks will be held, thus ensuring a wide diffusion of these.

Booth
999 €

If you want to have a booth on the Conference you will get the following benefits:

- **Advertisement as sales booth** in the Conference
- **One registration** (It includes lunch and coffees).
- One invitation to the gala **dinner** of the Conference.
- 2 x 2 m^2 **stand** including a glass table, 2 chairs, carpet, lighting and a plug.
- Other extra furniture must be consulted with the organization.
- A **personalized interview** recorded during the event.

Would you like to have a Stand at the only Odour Management Conference in the industry? Do you want them to know your product or service? Contact us here!

Collaborator
0 €

The free partner package includes the following benefits:

- The logo of your business will be included in the list of collaborators in the programme and on the congress website.

Would you like to be a collaborator? Include in your web/LinkedIn the news about this conference with a link to https://olores.org/en/iwaodours2021 and then, contact us at iwaodours2021@olores.org!

A conference organised by Olores.org:

More information: www.olores.org/iwaodours2021

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