Water Taste & Odor (T&O) – Contributions of the WaterTOP network

Tri Kaloudis[1,2], Reyhan Akcaalan[3], Theodoros Triantis[2], Galina Dimova-Boykinova[4], Latife Köker[3], Ricard Devesa-Garriga[5], Martin Steinhaus[6], Emanuela Testai[7], Maura Manganelli[7], Anastasia Hiskia[2], Radoslav Tonev[8], Ana Rita Lado-Ribeiro[9], Popi Karaolia[10], Kristel Panksep[11]

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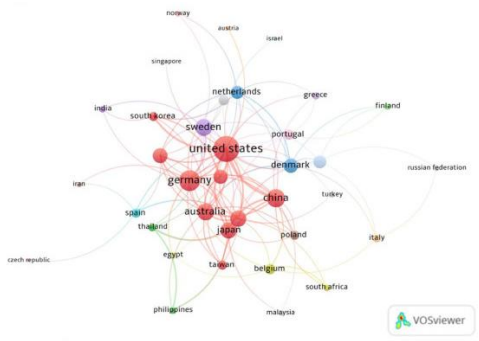

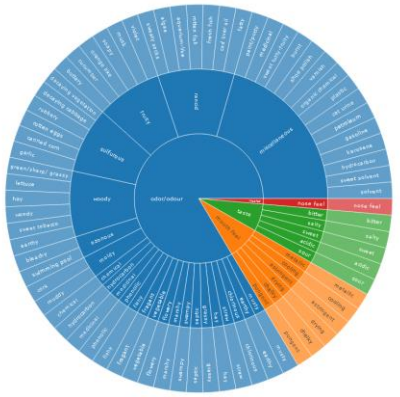

WaterTOP Virtual Conference "Water taste & odor (T&O) – Challenges and research advances" 22 February 2024

WaterTOP COST ACTION CA18225

cost EUROPEAN COOPERATION IN SCIENCE & TECHNOLOGY

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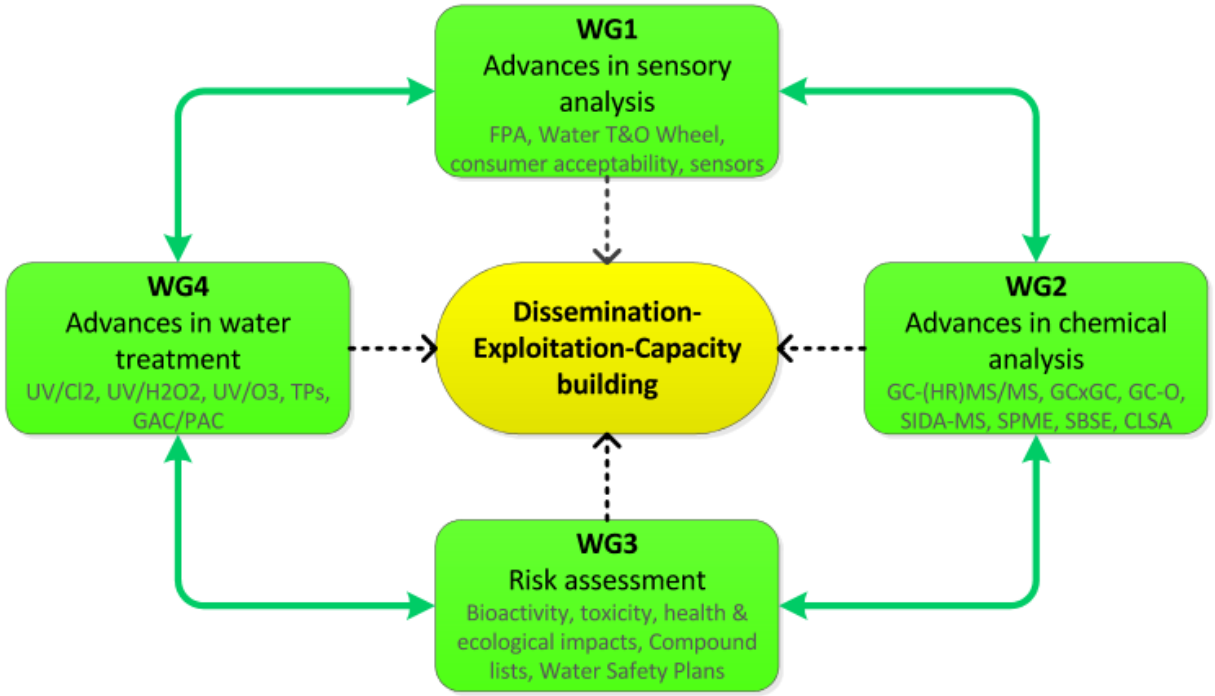

Taste and Odor in early diagnosis of source and drinking Water Problems.

Start: 28/08/2019, End: 27/02/2024
33 Countries (Management Committee).
318 individuals involved.


WG1: R. Devesa


WG2: M. Steinhaus


WG3: E. Testai


WG4: A. Hiskia


Theodoros Triantis, GH Scientific Rep.


Galina Dimova, Comm. Manager


Reyhan Akcaalan, Vice Chair


Tri Kaloudis, Chair

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NCSR Demokritos, Grant Holder Institution

Training Schools

1. **Introduction to water sensory testing**, Organized by Ricard Devesa-Garriga, 13/3/2020, Barcelona.
2. **Advanced GC-MS techniques for analysis of water T&O**, Organized by Martin Steinhaus, 3-5/5/2022, Leibniz-LSB@TUM, Freising.
3. **Advanced Oxidation Processes (AOP) for treatment of water T&O (including basic sensory and GC-MS analysis)**, Organized by Anastasia Hiskia, Theodoros Triantis and Tri Kaloudis, 5-9/9/2023, NCSR Demokritos and EYDAP SA, Athens.
4. **Introduction to sensory analysis of water**, Organized by Reyhan Akcaalan and Meric Albay, 17-19/10/2022, Istanbul University.
5. **Microextraction in T&O analysis: fundamentals and applications**, Organized by Elia Psillakis. 20-22/9/2023, Technical University of Crete.
6. **Risk assessment approaches for water T&O**, Organized by Emanuela Testai, Maura Manganelli, Simona Scardala, 16-18/102023, Istituto Superiore di Sanità (ISS), Rome

Short-Term Scientific Missions (STSM)

13 STSMs
11 Countries (hosts, guests)
14 Labs

STSM managers

Latife Koker

Popi Karaolia

Kristel Panksep

Publications

Chemical Engineering Journal Advances
Volume 12, 15 November 2022, 100409

Water taste and odor (T&O): Challenges, gaps and solutions from a perspective of the WaterTOP network

Reyhan Akcaalan [a], Ricard Devesa-Garriga [b], Andrea Dietrich [c], Martin Steinhaus [d], Andreas Dunkel [d], Veronika Mall [d], Maura Manganelli [e], Simona Scardala [e], Emanuela Testai [e], Geoffrey A. Codd [f], Frantisek Kozisek [g], Maria Antonopoulou [h], Ana Rita Lado Ribeiro [i], Maria José Sampaio [i], Anastasia Hiskia [j], Theodoros M. Triantis [j], Dionysios D. Dionysiou [k], Gianluca Li Puma [l], Linda Lawton [m], Christine Edwards [m], Henrik Rasmus Andersen [n], Despo Fatta-Kassinos [o], Popi Karaolia [o], Audrey Combès [p], Kristel Panksep [q], Sevasti-Kiriaki Zervou [j], Meriç Albay [a], Latife Köker [a], Ekaterina Chernova [r], Sofia Iliakopoulou [h, j], Elisabeth Varga [s], Petra M. Visser [t], Angelika Ioanna Gialleli [u], Zuhal Zengin [a], Nikos Deftereos [v], Phani Miskaki [v], Christophoros Christophoridis [j], Aikaterina Paraskevopoulou [j], Tsair-Fuh Lin [w], Arash Zamyadi [x, y], Galina Dimova [z], Triantafyllos Kaloudis [j, u]

https://doi.org/10.1016/j.ceja.2022.100409

Special Issue in CEJA:
Water taste and odour (T&O): challenges, gaps and solutions
Edited by Triantafyllos Kaloudis, Andrea Dietrich, Arash Zamyadi, Tsair-Fuh Lin, Ana Rita Lado

All WaterTOP publications are available in watertopnet.eu

Structural Diversity and Biological Activity of Cyanopeptolins Produced by *Nostoc edaphicum* CCNP1411

by Robert Konkel [1], Marta Cegłowska [2], Karolina Szubert [1], Ewa Wieczerzak [3], Sofia Iliakopoulou [4], Triantafyllos Kaloudis [5,6] and Hanna Mazur-Marzec [1,*]

Co-Occurrence of Taste and Odor Compounds and Cyanotoxins in Cyanobacterial Blooms: Emerging Risks to Human Health?

by Maura Manganelli [1,*,†], Emanuela Testai [1,†], Zakaria Tazart [2], Simona Scardala [1] and Geoffrey A. Codd [3,4]

Prevalence of Actinobacteria in the production of 2-methylisoborneol and geosmin, over Cyanobacteria in a temperate eutrophic reservoir

Nicolas A. Clercin [a,b,*], Ioanna Koltsidou [c], Christine J. Picard [c], Gregory K. Druschel [b]

Metagenomic study to evaluate functional capacity of a cyanobacterial bloom during oxidation

Saber Moradinejad [a,*], Hana Trigui [a], Juan Francisco Guerra Maldonado [a], B. Jesse Shapiro [b,c,d], Yves Terrat [b], Sébastien Sauvé [e], Nathalie Fortin [f], Arash Zamyadi [g,8], Sarah Dorner [a], Michèle Prévost [a]

Radiolytic degradation of 2-methylisoborneol and geosmin in water: Reactive radical species and transformation pathways

C. Christophoridis [a], C.J. Pestana [b], T. Kaloudis [a,c], L.A. Lawton [b], T.M. Triantis [a], A. Hiskia [a,*]

THE FIRST REPORT OF GEOSMIN AND 2-METHYLISOBORNEOL PRODUCER CYANOBACTERIA FROM TURKISH FRESHWATERS

Zuhal TUNÇ*, Reyhan AKÇAALAN, Latife KÖKER, Meriç ALBAY

Online tools for the community

WaterTOP Database of odorous compounds

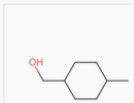
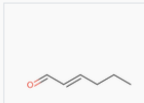
Leibniz Institute for Food Systems Biology at the Technical University of Munich

WaterTOP COST Action (CA18225)
for Water Taste and Odor Problems

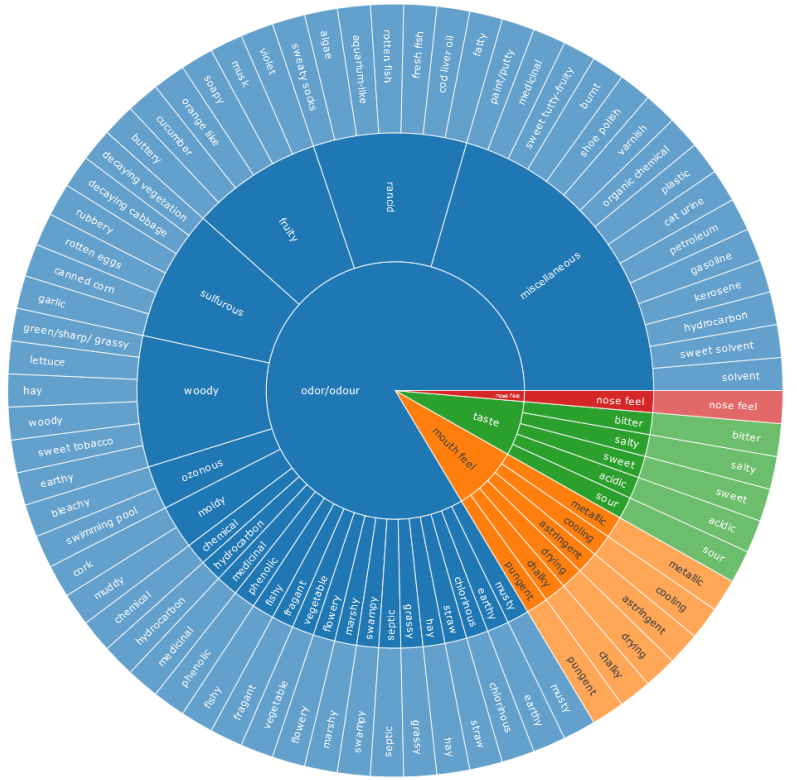
Funded by the European Union

About Publication

CSV PDF Print Column visibility Show 10 entries

Compound	Structure	MW	Quality	OT	Links	Source
Search Compound	Structure Search Tool	Min Max	Search Quality	Min Max	Search Links	Search Source
(4-Methylcyclohexyl)methanol		128.21	licorice (details)	0.55 µg/L(details)	PubChem:118193 FSBI-DB	Industrial pollution (details)
(E)-2-Decenal		154.25	fishy (details)		PubChem:5283345 FSBI-DB	
(E)-2-Hexenal		98.14	(details)	17 µg/L(details)	PubChem:5281168 FSBI-DB	

WaterTOP Flavorwheel 1.0



Andreas Dunkel,
Leibniz LSB@TUM

Stay tuned for the presentations of Andreas and Ricard !

Ricard Devesa,
UPC Barcelona

Communication and dissemination

Info poster for consumers

NEWS MEDICAL LIFE SCIENCES

Towards effective protection of water resources and human health

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Reviewed

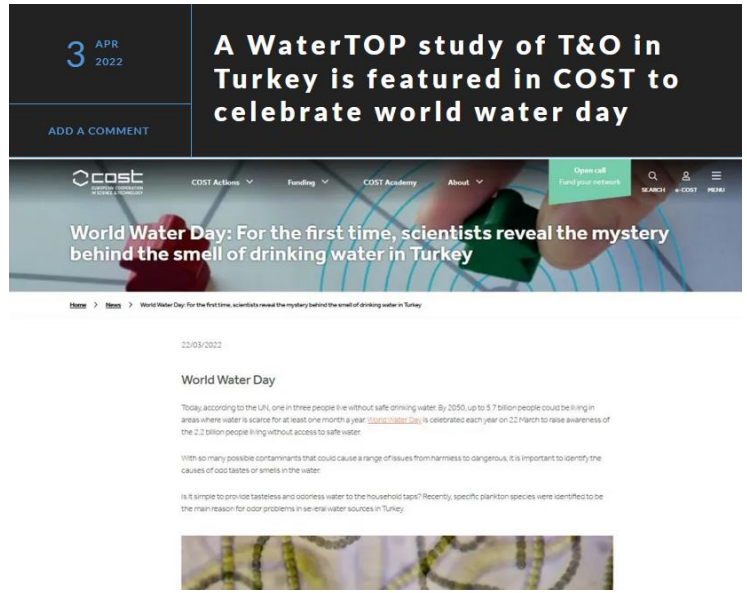
Reviewed by James Ives, M.Psych. (Editor) Jun 2 2020

The covid-19 pandemic has shown us that public health can be endangered by "hidden enemies" like viruses that cannot be detected by our senses.

On the other hand, we are equipped with the best chemical sensor on the planet: our nose. So, when it comes to water which is fundamental to public health, can we trust our nose as a sentinel for water quality problems?

Researchers throughout Europe investigate how environment pollution and climate change accelerate the appearance of Tastes and Odors (T&O) in natural water sources and water supplies. Inappropriate water treatment or pipe materials can also cause these problems and make customers reluctant to drink tap water.

Understanding the causes, the chemical nature of T&O in water and the ways of detection and treatment are necessary steps for early alert of drinking water quality problems and



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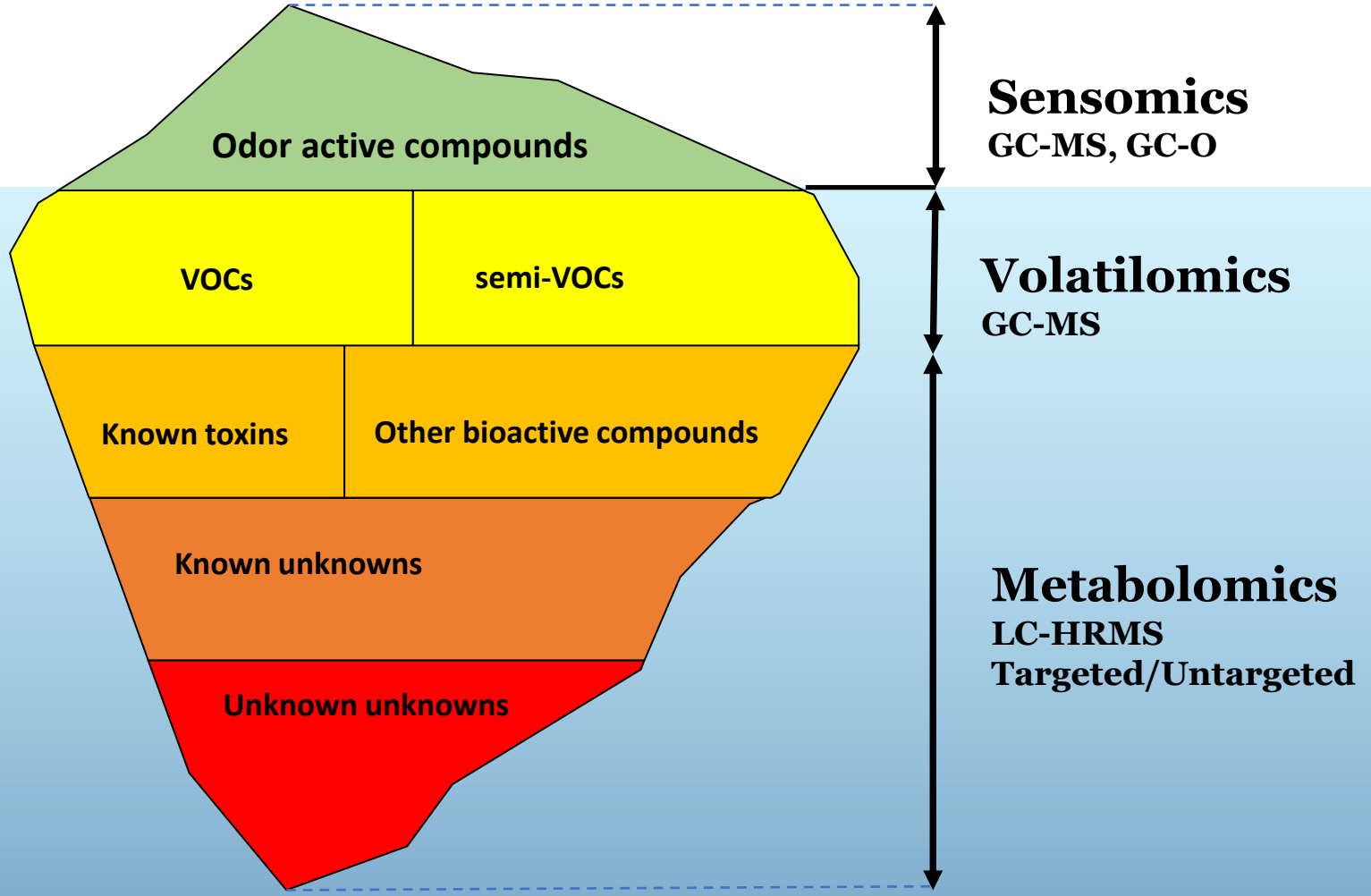
Galina Dimova, BWA, Comm. Manager

AquaSensOmics: A community-based multi-omics platform integrating sensory quality and public health risks in water supplies.

COST Innovators Grant Application 2024



Nico Salmaso, FEM, Italy. Metagenomics, metabarcoding, bioinformatics

Robin Schmid, IOCB of the CAS, Prague. Computational MS, cheminformatics

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COST Science Officer

Ms Cassia Azevedo,
COST Admin. Officer

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