Realization of a safe, secured, and comfortable town by removing a slight amount of hazardous substances hiding in living environments

Realization of Safe and Secured Water Cycle System Supporting Healthy Society and People

Project Leader: Hiroaki TANAKA

Specially Appointed Professor, Faculty of Engineering, Shinshu University

Professor Emeritus, Kyoto University

R&D Team: Hokkaido University, Kogakuin University, Setsunan University, Kochi University, Mitsubishi Electric Co., New JEC Inc., Sapporo City, Tohoku University, Shionogi & Co. Ltd., Shimadzu Co., Shimadzu Techno-Research Inc., AdvanSentinel Inc., Nihon Suido Consultants Co. Ltd., Tokyo Engineering Consultants Co. Ltd.



Summary:

Water is an inevitable resources in daily lives, and is recycled among human and social activities, and the water environment. Origins and whole pictures of the human health risk factors including hazardous chemicals, pathogenic bacteria and viruses, antibiotic resistance, etc. relevant to water is not disclosed well. Therefore, our present water infrastructures cannot bring human risk zero in all water applications. This project aims at identification of critical control points on such human health risk factors, risk evaluation to lower the human health risk to reasonably acceptable levels, development of high-performance and lowcost water treatment system, and development of wastewater-based epidemiology for social implementation, which is introduced to water infrastructures to realize safe and secured water application.

