



Partner for progress

Kiwa Water Research: Healthy drinking water, now and in the future

Clean drinking water is vital to everyone's health. Kiwa Water Research delivers the knowledge and technology necessary for optimal quality in the supply and management of water. With and for water companies, we develop and manage knowledge towards the impeccable quality of drinking water both now and in the future.

The group 'Chemical Water Quality and Health' within Kiwa Water Research performs research and advisory work, directed to optimizing the quality of drinking water supply. We assess current, and foresee and predict emerging chemical and toxicological issues that could threaten water quality. We aim to increase understanding of the sources, occurrence, behaviour and effects of chemicals in aquatic systems, and their consequences for (drinking) water quality and human health. In this way we support the mission of Kiwa Water Research.

On short term we are looking for:

PhD-position for development of a Toxicity Sensor (m/f)

Function

Within the context of the Technological Top Institute for Water (TTI-W), Kiwa Water Research has started to develop a toxicity sensor for real-time and on-line monitoring of toxicity in water. This is done in a consortium with academia and private partners. Currently, the presence of toxic chemicals in water is detected by chemical analysis, biomonitors, or in vitro toxicity assays. Chemical analysis can only detect the specific compounds searched for, while the biomonitors hamper a clear link with the hazard for humans and do not detect all relevant toxic contaminants. In vitro toxicity assays take a relatively long time to perform. In this PhD-project, genetically modified bacterial strains emitting light after exposure to toxicants are immobilized on an optic fibre, which transports the light to a detector. This type of sensor is potentially a great supplement to the current monitoring technologies for water quality, for both surface water and application in the drinking water production chain. In recent projects of Kiwa Water Research, a prototype flow-through device for this sensor has been developed together with partners. Many issues remain to be tested, optimized and developed before a device fit-for-use can be built, such as an optimal combination of different bacterial strains, the stability and sensitivity of the system, results under field conditions and comparison with existing monitoring methods. The ultimate aim is to develop a

Mission

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Represents the way in which we work with our customers, but also with our own employees. Also for them, Kiwa Water Research wants to be a partner who helps them to realise their ambitions.

Working for Kiwa Water Research

Means working in an organisation where you can achieve something. There is much room for your own initiative; the number of decision levels is small. Cooperation is key in our creative and solution-focused atmosphere.

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miniature, complete, toxicity sensor that can be applied in the field, both at surface water inlets and in the distribution network.

Profile

To bring this PhD project to a success, we are looking for a bio-engineer, biologist, chemist or chemical engineer, preferably with affinity for toxicology. For this PhD-position, we seek an enthusiastic and independent person, capable to work in an interdisciplinary project covering optics to microbiology and toxicology with many partners, and eager to enterprise.

We offer

An attractive position in a growing, innovative and dynamic knowledge institute that positions itself as a developer, applier and organiser of knowledge.

An informal work atmosphere characterised by motivated and enthusiastic colleagues.

There is lots of room for personal and professional development as well as a good balance between private life and work. Our employees are the success factor and the capital of Kiwa Water Research and are therefore central to our organisation.

Kiwa Water Research naturally offers a fitting salary with good fringe benefits.

Is this position appealing to you? Then we look forward to receiving your application!

Information and application

For more information regarding the above position, contact Annemarie van Wezel, telephone +31 (0)30 6069519. Send your cover letter with a short introduction as to your motivation for application, along with your resume, to: sonja.mous@kiwa.nl.



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