

## Autor

Thomas Egli<sup>1,2</sup>

<sup>1</sup> Abteilung Umweltmikrobiologie, Eawag, Das Wasserforschungsinstitut der Bundes, Dübendorf

<sup>2</sup> MICROBES-IN-WATER GmbH, General Wille-Strasse 194, 8706 Feldmeilen

## Titel

**Neuer Wind in der mikrobiologischen Analyse von Trinkwasser**

*Anfragen, Korrespondenz:* microbes-in-water@bluwin.ch

## Referenzen

- [1] OECD; WHO (2003) Assessing microbial safety of drinking water, improving approaches and methods. OECD, Paris, and WHO, Geneva.
- [2] Bartram J., Cotruvo J., Exner M., Fricker C., Glasmacher A. (2003) Heterotrophic plate counts and drinking water safety. IWA Publishing on behalf of the World Health Organization. London U.K.
- [3] Egli T. (2012) Mikrobiologische Trinkwasseranalyse. Entwicklung, Stand, Ausblick. *Aqua & Gas* **5**, 14-22.
- [4] Bergquist, P.L., Hardiman E.M., Ferrari B.C., Winsley T. (2009) Applications of flow cytometry in environmental microbiology and biotechnology. *Extremophiles* **3**, p. 389-401.
- [5] Gasol J.M., Del Giorgio P.A. (2000) Using flow cytometry for counting natural planktonic bacteria and understanding the structure of planktonic bacterial communities. *Scientia Marina* **64**, 197-224.
- [6] Hammes F., Egli T. (2010) Cytometric methods for measuring bacteria in water: Advantages, pitfalls and applications. *Analytical and Bioanalytical Chemistry* **397**, 1083-1095.
- [7] Keserue H.-A., Egli T. (2012). Durchflusszytometrie. Nachweis von Krankheitserregern. *Aqua & Gas* **5**, 34-38.
- [8] Fuchsli H.P., Kötzsch S., Keserue H.-A., Egli T. (2010) Rapid and quantitative detection of Legionella pneumophila applying immunomagnetic separation and flow cytometry. *Cytometry Part A* **77A**, 264-274.
- [9] Vital M., Stucki D., Egli T., Hammes F. (2010). Evaluating the growth potential of pathogenic bacteria in water. *Applied and Environmental Microbiology* **76**, 6477-6484.
- [10] Hammes F., Egli T. (2005) A new method for assimilable organic carbon (AOC) determination using flow-cytometric enumeration and a natural microbial consortium as inoculum. *Environmental Science and Technology* **39**, 3289-3294.
- [11] Hammes F., Berney M., Wang Y., Vital M., Köster O., Egli T. (2008) Flow-cytometric total bacterial cell counts as a descriptive microbiological parameter for drinking water treatment processes. *Water Research* **42**, 269-277.
- [12] Berney M., Vital M., Hülshoff I., Weilenmann H.U., Egli T., Hammes F. (2008). Rapid, cultivation-independent assessment of microbial viability in drinking water. *Water Research* **42**, 4010-4018.
- [13] Berney M., Weilenmann H.U., Egli T. (2006) Flow-cytometric study of vital cellular functions in Escherichia coli during solar disinfection (SODIS). *Microbiology UK* **152**, 1719-1729.
- [14] Bucheli-Witschel M., Kötzsch S., Darr S., Widler R., Egli T. (2012) A new method to assess the influence of migration from polymeric materials on the biostability of drinking water. *Water Research* **46**, 4246-4260.
- [15] Schweizerisches Lebensmittelbuch, SLMB (2012). Untersuchungsmethode 333: Bestimmung der Totalzellzahl und des quantitativen Verhältnisses der Zellen niedrigen bzw. hohen Nukleinsäuregehalts in Süßwasser mittels Durchflusszytometrie. Eidgenössisches Departement des Inneren EDI, Bundesamt für Gesundheit (BAG, Bern, Dezember 2012. (English version also available: Determining the total cell count and ratios of high and low nucleic acid content cells in freshwater using flow cytometry.)
- [16] Lautenschlager K., Boon N., Wang Y., Egli T., Hammes F. (2010) Overnight stagnation of drinking water in household taps induces microbial growth and changes in community composition. *Water Research* **44**, 4868-4877.
- [17] Lautenschlager K., Hwang C., Liu W.-T., Boon N., Egli T., Hammes F. (2013) A multi-parameter approach towards assessing biological stability in drinking water distribution networks. *Water Research* **47**, 3015-3025.
- [18] Kötzsch S., Egli T. (2013) Kunststoffe in Kontakt mit Trinkwasser: Labortests und Realität. *Aqua & Gas* **6**, 44-52.
- [19] Kötzsch S., Alisch S., Egli T. (2012) Durchflusszytometrische Analyse von Wasserproben. Schweizerisches Bundesamt für Gesundheit (BAG). Methodenhandbuch, Ausgabe 1, 31.10.2012.

- [20] Hammes F., Boger T., Weilenmann H.U., Vital M., Helbing J., Bosshart U., Huber P., Odermatt R.P., Sonnleitner B. (2012) Development and laboratory-scale testing of a fully automated online flow cytometer for drinking water analysis. *Cytometry Part A*, 81A, 508-516.
- [21] Hammes, F., Berger, C., Köster, O., Egli, T. (2010): Assessing biological stability of drinking water without disinfectant residuals in a full-scale water supply system. *Journal of Water Supply: Research and Technology-AQUA* 59, 31-39.
- [22] Köster O. (2012) Durchflusszytometrie beim Wasserversorger. Heutige Anwendungen und künftige Bedürfnisse. *Aqua & Gas* 5, 24-27.
- [23] Hammes, F. Salhi, E., Köster, O., Kaiser, H.-P., Egli, T. (2006): Effect of ozonation on AOC generation. *Water Research* 40, 2275-2286.
- [24] Ramseier M.K., von Gunten U., Freihofer P., Hammes F. (2011) Kinetics of membrane damage to high (HNA) and low (LNA) nucleic acid bacterial clusters in drinking water by ozone, chlorine, chlorine dioxide, monochloramine, ferrate(VI), and permanganate. *Water Research* 45, 1490-1500.