

# 20 Years DGFS Society for Liquid Scintillation – New Developments

S. Möbius<sup>1)</sup>, J. Wendel<sup>1)2)</sup>, S. Erat<sup>1)</sup>

<sup>1)</sup>German Society for Liquid Scintillation DGFS e.V., Spoecker Weg 54A, 76351 Linkenheim, Germany

<sup>2)</sup>Karlsruhe Institute of Technology (KIT), ITEP-TLK, Hermann-von-Helmholtz-Platz 1, 76344 Eggenstein-Leopoldshafen, Germany

## DGFS Key Objects

- Development and exchange of experiences in modern Liquid Scintillation (LS) to a broader community
- Development and improvement of analytical procedures with special emphasis on natural radionuclides, gross  $\alpha / \beta$ , Ra and Rn isotopes, NORM (see various LSC Conference Proceedings)
- Academical education and training in Liquid Scintillation: International Training Courses Karlsruhe (Germany), Rio de Janeiro (Brazil), Bangkok (Thailand), Brisbane (Australia) and Antsiranana (Madagascar)

## LS Analytical Procedures (1)

- Quick method for key nuclides in drinking water (Rn-222, Ra-226/8, Pb-210, H-3, gross  $\alpha/\beta$ ) pp55(1)
- RAD Disk based methods and plastic scintillator microspheres for Ra and Sr-isotopes, Pb-210 and Tc-99
- Artificial radionuclides in the nuclear fuel cycle (Fe-55 and Ca-41 in decommissioning activities by TDCR) pp93(1)
- Tritium analysis in pipes after oxidation for KATRIN neutrino mass experiment (new)
- Pb-210 Black Powder deposits from pipelines after leaching (e.g. Nord Stream) pp119(1) (new)
- Radiocarbon in biobased products (e.g. fuel) pp64(1)
- Simple self-made LS arrangement for training pp22(1) and others

## Literature

(1) Moebius S., Erat S., Mayer K., Moebius R., Moebius T., Santiago L., Tarancon A., Wendel J., Wisser S.

Liquid Scintillation – Measuring Procedures,  
New Developments – 2<sup>nd</sup> extended Ed. 2018, DGFS e.V.  
German Society for Liquid Scintillation Spectrometry and  
KIT Karlsruhe Institute of Technology, 2018 Karlsruhe

Contact: [info@dgfs-ev.eu](mailto:info@dgfs-ev.eu)

