

Proceedings of LSC2017 Conference

LSC2017, an International Conference on Advances in Liquid Scintillation Spectrometry (<http://lsc2017.nutech.dtu.dk/>), was held in Copenhagen during 30 April–5 May 2017. In total 185 abstracts were received, and 191 participants and 15 accompany persons attended the conference. After reviewed by the scientific committee 176 papers were selected for presentation in the LSC2017 conference, 13 invited lectures and 65 oral and 98 poster presentations.

The presenters were invited to submit the full papers to be included in the LSC2017 proceedings, which was published in the Journal of Radioanalytical and Nuclear Chemistry. After reviewing through the ordinary JRNC review process, 35 research papers were accepted for publication. These papers have been published in JRNC, volume 234, issue 2 in Nov. 2017. Below is a list of papers in the LSC2017 proceedings.

You can download the full papers from the website of JRNC through the links in the below list if you or your institute has subscribed this journal. Otherwise, you can request a reprint from the corresponding author of the paper (email is listed for each paper).

I would like to take this chance to thank all participants, presenters, sponsors, specially the scientific and organization committee members for their great contribution to the wonderful LSC conference.

Here I would also like to thank all referees for their excellent efforts to reviewing these papers, which ensure the scientific quality of all papers published in the LSC2017 proceedings.

Xiaolin Hou, professor
Chairman of LSC2017 conference
Editor of the LSC2017 proceedings
Guest editor of the LSC2017 special issue of JRNC

25th Nov. 2017, Copenhagen

Journal of Radioanalytical and Nuclear Chemistry

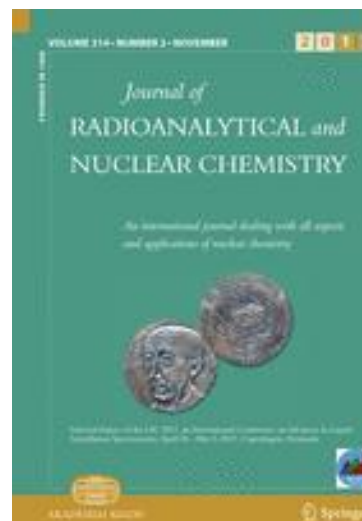
November 2017, Volume 314, [Issue 2](#)

Content of LSC2017 Conference Proceedings

[Foreword](#)

[Xiaolin Hou](#) Pages 541-544

1. [Primary activity standardization of \$^{134}\text{Cs}\$](#)
[Karsten Kossert](#),* [Justyna Marganiec-Gałązka](#)... Pages 545-553
Email: karsten.kossert@ptb.de
2. [Plastic scintillators and related analytical procedures for radionuclide analysis](#)
[Alex Tarancón](#), [Héctor Bagán](#), [José F. García](#)* Pages 555-572
Email: jfgarcia@ub.edu
3. [The comparison of scintillation properties of YAP:Ce, YAG:Ce and ZnO:Ga powders as a potential substitution of LSC cocktail](#)
[Jiri Janda](#) Pages 573-582
Email: janda@unob.cz
4. [Design and performance of a miniature TDCR counting system](#)
[K. Mitev](#),* [P. Cassette](#), [V. Jordanov](#)... Pages 583-589
Email: kmitev@phys.uni-sofia.bg
5. [Adaptation of PTB's analytical modelling for TDCR–Cherenkov activity measurements at LNHB](#)
[Cheick Thiam](#),* [Christophe Bobin](#)... Pages 591-597
Email: cheick.thiam@cea.fr
6. [Activity determination of \$^{88}\text{Y}\$ by means of \$4\pi\beta\(\text{LS}\)\text{-}\gamma\$ coincidence counting](#)



[Justyna Marganec-Gałązka,* Ole J. Nähle...](#) Pages 599-604

Email: justyna.marganec@ptb.de

7. [**Correlation in the application of the triple-to-double coincidence ratio method with unequal photomultiplier tube efficiencies**](#)

[Brian E. Zimmerman](#) Pages 605-609

Email: bez@nist.gov

8. [**Synthesis of ZrO₂ nanoparticles for liquid scintillators used in the detection of neutrinoless double beta decay**](#)

[Susumu Takigawa, Masanori Koshimizu, *...](#) Pages 611-615

Email: koshi@qpc.che.tohoku.ac.jp

9. [**Multiple beta spectrum analysis based on spectrum fitting**](#)

[UkJae Lee, Jun Woo Bae, Hee Reyoung Kim*](#) Pages 617-622

Email: kimhr@unist.ac.kr

10. [**Establishment of rapid LSC method for direct alpha/beta measurements in waters**](#)

[Ivana Stojković, Nataša Todorović...](#) Pages 623-627

Email: ivana_st@uns.ac.rs

11. [**A performance comparison of two kinds of liquid scintillation counters from PerkinElmer, Inc.**](#)

[Xiao-gui Feng, Guo-hua Jiang, Jian-hua Huang...](#) Pages 629-635

Email: liu-xg@tsinghua.edu.cn (Xue-gang Liu)

12. [**Synthesis and characterisation of scintillating microspheres made of polystyrene/polycarbonate for ²²²Rn measurements**](#)

[Eduard Pelay, Alex Tarancón,* Krasimir Mitev...](#) Pages 637-649

Email: alex.tarancon@ub.edu

13. [**A new bomb-combustion system for tritium extraction**](#)

[Richard I. Marsh, Ian W. Croudace...](#) Pages 651-658

[Download PDF \(4573KB\) View Article](#)

14. [**Determination of radionuclidic impurities in ^{99m}Tc eluate from ⁹⁹Mo/^{99m}Tc generator for quality control**](#)

[Xiaolin Hou](#) Pages 659-668

E-mail: xiho@dtu.dk

15. **Determination of tritium in water using electrolytic enrichment: methodology improvements**
[A. R. Gomes](#),* [J. Abrantes](#), [A. Libânio](#)... Pages 669-674
Email: argomes@ctn.tecnico.ulisboa.pt
16. **Tritium in organic matter around Krško Nuclear Power Plant**
[Romana Krištof](#),* [Suzana Košenina](#)... Pages 675-679
Email: [@ijs.si](mailto:romana.kristof@ijs.si)
17. **Determination of low-level tritium concentrations in surface water and precipitation in the Czech Republic**
[Diana Marešová](#),* [Eduard Hanslík](#), [Eva Juranová](#)... Pages 681-687
Email: diana.maresova@vuv.cz
18. **Development of continuous inflow tritium measurement in water technology using electrolysis and a plastic scintillator**
[Jun Woo Bae](#), [UkJae Lee](#), [Hee Reyoung Kim](#)* Pages 689-694
Email: kimhr@unist.ac.kr
19. **Measurement of ^3H , gross α/β and ^{222}Rn in drinking water using the new Quantulus GCT 6220**
[Ronald H. W. Edler](#) Pages 695-699
Email: Ronald.edler@perkinelmer.com
20. **Measurement of tritium with plastic scintillators in large vials of a low background liquid scintillation counter: an organic waste-less method**
[Etsuko Furuta](#),* [Yuka Kato](#), [Shinji Fujisawa](#) Pages 701-708
Email: furuta.etsuko@ocha.ac.jp
21. **Comparison of two methods for ^{14}C analysis from essential oils using LSC**
[Irina Vagner](#),* [Carmen Varlam](#), [Ionut Faurescu](#)... Pages 709-713
Email: irina.vagner@icsi.ro
22. **Direct LSC method for determination of bio-origin by C-14 measurement**
[Romana Krištof](#),* [Jasmina Kožar Logar](#) Pages 715-719
Email: [@ijs.si](mailto:romana.kristof@ijs.si)

23. [**Bilateral comparison of \$^{14}\text{C}\$ activity measurements at the NCBJ RC POLATOM and the ENEA-INMRI**](#)
[T. Ziemek](#),* [M. Capogni](#),* [R. Broda](#)... Pages 721-725
Email: tomasz.ziemek@polatom.pl
24. [**Measurement of \$^{160}\text{Tb}\$ and \$^{161}\text{Tb}\$ in nuclear forensics samples**](#)
[J. Jiang](#),* [A. V. Davies](#), [R. E. Britton](#) Pages 727-736
Email: jun.jiang@awe.co.uk
25. [**Method validation and verification in liquid scintillation counting using the long-term uncertainty method \(LTUM\) on two decades of proficiency test data**](#)
[F. Verrezen](#),* [M. Vasile](#), [H. Loots](#)... Pages 737-742
Email: freddy.verrezen@sckcen.be
26. [**Development of stable extractive scintillating materials for real-time quantification of radiostrontium in aqueous solutions**](#)
[Ayman F. Seliman](#),* [Valery N. Bliznyuk](#)... Pages 743-751
Email: ayman@clemson.edu
27. [**Liquid scintillation counters calibration stability over long timescales**](#)
[Pawel Gaca](#), [Phillip E. Warwick](#)... Pages 753-760
[Download PDF \(849KB\)](#) [View Article](#)
28. [**Rapid on-site radionuclide screening of aqueous waste streams using dip-stick technologies and liquid scintillation counting**](#)
[Phillip E. Warwick](#), [Ian W. Croudace](#) Pages 761-766
[Download PDF \(414KB\)](#) [View Article](#)
29. [**Phase stability and lithium loading capacity in a liquid scintillation cocktail**](#)
[Denis E. Bergeron](#),* [H. P. Mumm](#), [M. A. Tyra](#) Pages 767-771
Email: denis.bergeron@nist.gov
30. [**Optimization of the liquid scintillation counting technique for the European interlaboratory comparison on gross \$\alpha/\beta\$ activity concentrations in water**](#)
[Andrej Rožkov](#), [Viktor Jobbágy](#)... Pages 773-780
Email: andrej.rozkov@ec.europa.eu
31. [**Comparison of three methods for measuring \$^{222}\text{Rn}\$ in drinking water**](#)
[Ll. Pujol](#),* [M. E. Pérez-Zabaleta](#) Pages 781-788
Email: luis.pujol@cedex.es

32. **Determination of ^{90}Sr in urine samples and $^{89}\text{Sr}/^{90}\text{Sr}$ in water samples by chemical separation and Cherenkov counting with LSC system**
[S. Ridone](#), [D. Arginelli](#), [M. C. Botta](#) Pages 789-795
Email: sandro.ridone@enea.it

33. **Strategy for the determination of mixtures of alpha and beta emitters in water samples with a combination of rapid methods**
[Jordi Fons-Castells](#), [Joana Tent-Petrus](#)... Pages 797-802
Email: jordi.fons@ub.edu

34. **A fast-neutron coincidence collar using liquid scintillators for fresh fuel verification**
[Jonathan S. Beaumont](#), [Tae Hoon Lee](#)... Pages 803-812
Email: j.beaumont@iaea.org

35. **Inter-laboratory exercise with an aim to compare methods for ^{90}Sr and $^{239,240}\text{Pu}$ determination in environmental soil samples**
[Jixin Qiao](#),* [Susanna Salminen-Paatero](#)... Pages 813-826
Email: jiji@dtu.dk