

## Complete list of publications of Benedict Seiferle

1. Lars von der Wense, Pavlo V. Bilous, **Benedict Seiferle**, Simon Stellmer, Johannes Weitenberg, Peter G. Thirolf, Adriana Pálffy, Georgy Kazakov. *The theory of direct laser excitation of nuclear transitions*. arXiv:2001.08320. [revision submitted to Eur. Phys J. A] (2020).
2. Pavlo V. Bilous, Hendrik Bekker, Julian C. Berengut, **Benedict Seiferle**, Lars von der Wense, Peter G. Thirolf, Thomas Pfeifer, José R. Crespo López-Urrutia, and Adriana Pálffy. *Electronic Bridge Excitation in Highly Charged  $^{229}\text{Th}$  Ions*. Phys. Rev. Lett. 124, 192502 (2020).
3. Peter G. Thirolf, **Benedict Seiferle**, Lars v.d. Wense, Ines Amersdorffer, Daniel Moritz, Johannes Weitenberg. *'Phase transition' in the 'Thorium Isomer Story'*. Acta Physica Polonica B 51, 561-570 (2020).
4. Peter G. Thirolf, **Benedict Seiferle**, Lars v.d. Wense, *Ein Isomer als Uhrwerk* Physik Journal, June (2020).
5. **Benedict Seiferle**, Lars v.d. Wense, Ines Amersdorffer, Nicolas Arlt, Benjamin Kotulski, and Peter G. Thirolf. *Towards a precise determination of the excitation energy of the thorium nuclear isomer using a magnetic bottle spectrometer*. Nucl. Instrum. Meth. B 463, 499 (2020).
6. **Benedict Seiferle**, Lars v.d. Wense, Pavlo V. Bilous, Ines Amersdorffer, Christoph Lemell, Florian Libisch, Simon Stellmer, Thorsten Schumm, Christoph E. Düllmann, Adriana Pálffy, and Peter G. Thirolf. *Energy of the  $^{229\text{m}}\text{Th}$  nuclear clock transition*. Nature 573, 243 (2019).
7. Peter G. Thirolf, **Benedict Seiferle**, Lars v.d. Wense, *Improving Our Knowledge on the  $^{229\text{m}}\text{Thorium}$  Isomer: Toward a Test Bench for Time Variations of Fundamental Constants*. Annalen der Physik, 1800381 (2019).
8. Peter G. Thirolf, **Benedict Seiferle**, Lars v.d. Wense, *The 229-thorium isomer: doorway to the road from the atomic clock to the nuclear clock* Journal of Physics B: Atomic, Molecular and Optical Physics, accepted for publication (2019).
9. Lars v.d. Wense, **Benedict Seiferle**, Ines Amersdorffer, Peter G. Thirolf, *Generation of high-quality beams of the thorium isomer  $^{229\text{m}}\text{Th}$* . Journal of Visualized Experiments 147, e58516 (2019).
10. Lars v.d. Wense, **Benedict Seiferle**, Christian Schneider, Justin Jeet, Ines Amersdorffer, Nicolas Arlt, Florian Zacherl, Raphael Haas, Dennis Renisch, Patrick Mosel, Philip Mosel, Milutin Kovacev, Uwe Morgner, Christoph E. Düllmann, Eric R. Hudson, Peter G. Thirolf, *The concept of a laser-based conversion electron nuclear Mössbauer spectroscopy for a precise energy determination of  $^{229\text{m}}\text{Th}$* , Hyperfine Interactions 240, 23 (2019).
11. Johannes Thielking, Maxim V. Okhapkin, Przemyslaw Głowacki, David M. Meier, Lars v.d. Wense, **Benedict Seiferle**, Christoph E. Düllmann, Peter G. Thirolf, and Ekkehard Peik. *Laser spectroscopic characterization of the nuclear-clock isomer  $^{229\text{m}}\text{Th}$* . Nature, 556:321, (2018).

12. Lars v.d. Wense, **Benedict Seiferle**, Peter G. Thirolf, *Towards a  $^{229}\text{Th}$  based nuclear clock*. Measurement Techniques 60, 1178-1192 (2018).
13. Lars v.d. Wense, **Benedict Seiferle**, Simon Stellmer, Johannes Weitenberg, Georgy Kazakov, Adriana Pálffy, and Peter G. Thirolf. *A laser excitation scheme for  $^{229\text{m}}\text{Th}$* . Phys. Rev. Lett., 119, 132503, (2017).
14. **Benedict Seiferle**, Lars v.d. Wense, and Peter G. Thirolf. *Lifetime measurement of the  $^{229}\text{Th}$  nuclear isomer*. Phys. Rev. Lett., 118:042501, (2017).
15. **Benedict Seiferle**, Lars v.d. Wense, and Peter G. Thirolf. *Feasibility study of internal conversion electron spectroscopy of  $^{229\text{m}}\text{Th}$* . The European Physical Journal A, 53(5):108, (2017).
16. Lars v.d. Wense, **Benedict Seiferle**, Mustapha Laatiaoui, Jurgen B. Neumayr, Hans- Jörg Maier, Hans-Friedrich Wirth, Christoph Mokry, Jörg Runke, Klaus Eberhardt, Christoph E. Düllmann, Norbert G. Trautmann, and Peter G. Thirolf. *Direct detection of the  $^{229}\text{Th}$  nuclear clock transition*. Nature, 533:47 (2016).
17. **Benedict Seiferle**, Lars v.d. Wense, Mustapha Laatiaoui, and Peter G. Thirolf, *A VUV detection system for the direct photonic identification of the first excited isomeric state of  $^{229}\text{Th}$* . Eur. Phys. J. D, 70(3):58, (2016).
18. Lars v.d. Wense, **Benedict Seiferle**, Mustapha Laatiaoui, Peter G. Thirolf, *The extraction of  $^{229\text{m}}\text{Th}^{3+}$  from a buffer-gas stopping cell*, Nucl. Instr. Meth. B 376, 260 (2016).
19. Lars v.d. Wense, **Benedict Seiferle**, Mustapha Laatiaoui, and Peter G. Thirolf. *Determination of the extraction efficiency for  $^{233}\text{U}$  source  $\alpha$ -recoil ions from the MLL buffer-gas stopping cell*. Eur. Phys. J. A, 51(3):29, (2015).