

Abstract Submitted
for the HAW05 Meeting of
The American Physical Society

Sorting Category: 8. (E)

γ -rays from the decay of the 0.26 s isomer in $^{254}\text{No}^*$

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U., P. REITER, U. Koln, Germany, P.A. BUTLER, R. HERZBERG,
G. JONES, U. Liverpool, UK — The $t_{1/2}=0.26$ s, high-K isomer in
 ^{254}No , first identified by Ghiorso et al. and further studied by Mukher-
jee et al. through the detection of electrons, was populated using the
 $^{208}\text{Pb}(^{48}\text{Ca},2n)$ reaction at a beam energy of 219 MeV, provided by the
ATLAS accelerator at Argonne. The evaporation residues were trans-
ported through the Fragment Mass Analyzer (FMA), identified by mass
and then implanted in a 40x40 mm Double-Sided Silicon Strip Detector
(DSSD). Conversion electrons following the de-excitation of the isomer
and α -particles from ^{254}No were detected, with the requirement that all
signals originate from the same DSSD pixel. The γ -rays from the de-
cay of the isomer were detected using three Ge clover detectors placed
around the DSSD. The inferred decay pattern of the isomer, based on
the observed γ -rays, including two high-energy transitions observed in
earlier prompt studies, indicate that the isomer decays to an excited
two-quasiparticle or octupole vibrational band.

Supp. by USDOE Grant DE-FG02-94ER40848 and W-31-109-ENG-38.

- Prefer Oral Session
 Prefer Poster Session

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Date submitted: 18 Aug 2005

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