

Abstract Submitted
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Sub-Nanoparticle Femto Atometry: Measurement of Genome Lengths of Mammalian Tissues CHRIS DRUEY, BOGDAN C. MAGLICH, ANNA Z. RADOVIC, California Science & Engineering Corp. — Measurement of porcine and bovine genome length, giga nucleotide base pairs, Gbp, was made by irradiating each tissue for 30' with neutrons of femto DeBroglie $\lambda \sim 10^{-15}$ m, which, unlike nanoparticles, interact only locally with atomic nuclei in nucleotide. O and C atoms were counted via γ rays emitted from (n, n' γ) reaction. By irradiating free dA, dC and T nucleotides for 30' we got response constant: $(1,450 \pm 44)$ γ/O . From 2 measurements we obtained $2.59 \pm .05$ and $3.19 \pm .06$ Gbp for porcine and bovine, respectively, consistent with 2.7 and 3 Gbp (errors not quoted) obtained by genome sequencing method that took 6 years each.

Christian Druey
CALSEC

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