

■ Accelerated Mass Spectrometry Radiocarbon Determination of Papyrus Samples

Noreen Tuross

Department of Human Evolutionary Biology, Harvard University

Date of Study: March 8, 2014

Date no.:	OS-108802	OS-108803
Sample	Gospel of John	<i>Gospel of Jesus's Wife</i>
$\delta^{13}\text{C}$:	-9.0‰	-12.0‰
Fraction of modern carbon:	0.85030±0.00410	0.85670±0.00500
2 sigma,		
95.4% calibrated age ranges:	648 cal C.E. to 800 cal C.E.	659 cal C.E. to 869 cal C.E.
Median date:	718 cal C.E.	741 cal C.E.

The calibrated ages are calculated using known-age tree ring radiocarbon measurements (INTCAL13) utilizing the OxCal program Version 4.2 (<http://c14.arch.ox.ac.uk>). Samples were prepared at the Tuross Laboratory at Harvard University, and the $\delta^{13}\text{C}$ values were measured in continuous flow using a Costech ECS 4010 elemental analyzer coupled to a Thermo Delta Plus XP mass spectrometer and reported in ‰ relative to PDB. Accelerator mass spectrometry was performed at the National Ocean Sciences Accelerator Mass Spectrometry Facility (NOSAMS) at the Woods Hole Oceanographic Institute in Woods Hole, Massachusetts.

