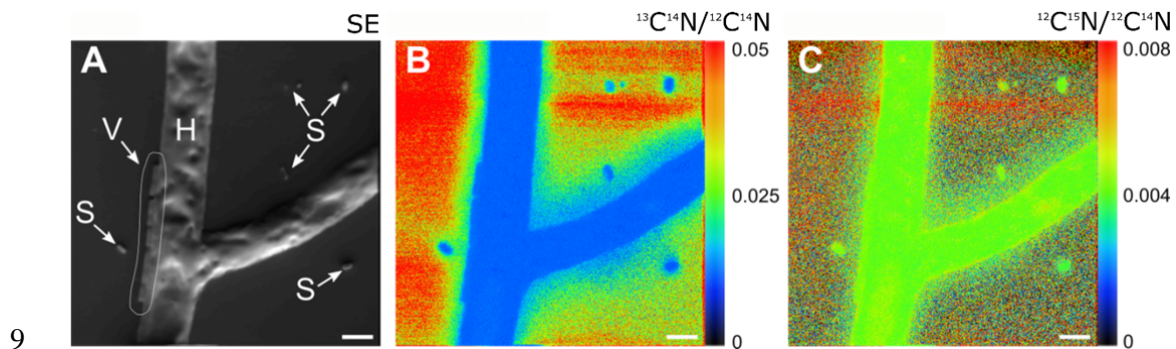


2 Supplementary Figure 1: NanoSIMS images of *P. ultimum* hyphae (H), *B. subtilis* spores (S)
 3 and vegetative cells (V) identified in a secondary electron and total biomass ($^{12}\text{C}^{14}\text{N}^-$) image
 4 (A, B) of a non-labeled sample. The ratio images of $^{18}\text{O}/^{16}\text{O}$ show the natural abundance of
 5 ^{18}O in the biomass of *P. ultimum* and *B. subtilis* (C). The color scale indicates the intensities
 6 of $^{12}\text{C}^{14}\text{N}^-$ (B) and enrichment in ^{18}O (C) with warmer colors representing higher secondary
 7 ion counts and cooler colors representing lower values. Images represent a field of analysis
 8 corresponding to a sample area of $40\times 40\ \mu\text{m}$. Scale bars, $4\ \mu\text{m}$.



10 Supplementary Figure 2: NanoSIMS images of *P. ultimum* hyphae (H), *B. subtilis* spores (S)
 11 and vegetative cells (V) identified in a secondary electron image (A) of a non-labeled sample.
 12 The ratio images of $^{13}\text{C}^{14}\text{N}/^{12}\text{C}^{14}\text{N}$ (B) and $^{12}\text{C}^{15}\text{N}/^{12}\text{C}^{14}\text{N}$ (C) show the natural abundance of
 13 ^{13}C and ^{15}N in the biomass of *P. ultimum* and *B. subtilis*. The color scale indicates the
 14 intensities of $^{13}\text{C}^{14}\text{N}/^{12}\text{C}^{14}\text{N}$ (B) and $^{12}\text{C}^{15}\text{N}/^{12}\text{C}^{14}\text{N}$ (C) enrichments with warmer colors
 15 representing higher enrichment levels and cooler colors representing lower values. Images
 16 represent a field of analysis corresponding to a sample area of $40\times 40\ \mu\text{m}$. Scale bars, $4\ \mu\text{m}$.

17 Supplementary Table 1: Number (#) of individual fields and replicate wafers analysed with
18 NanoSIMS in ^{18}O and $^{13}\text{C}^{15}\text{N}$ labeling experiments and ^{16}O and $^{12}\text{C}^{14}\text{N}$ control experiments as
19 well as numbers of vegetative cells and spores used to calculate APE shown in Fig. 6.

Sample	# Fields	# Wafers	# Vegetative cells	# Spores
^{18}O	3	2	20	23
^{16}O	2	2	106	3
$^{13}\text{C}^{15}\text{N}$	2	1	57	11
$^{12}\text{C}^{14}\text{N}$	3	2	104	7

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