Electronic Supplementary Material (ESI) for Metallomics.

Supporting Information for

Elemental bioimaging by means of LA-ICP-OES: Investigation of the calcium, sodium and potassium distribution in tobacco plant stems

Georgina M. Thyssen,† Michael Holtkamp,† Heidi Kaulfürst-Soboll,‡ Christoph A. Wehe,†, Michael Sperling,†,§ Antje von Schaewen,‡ and Uwe Karst*,†

†University of Münster, Institute of Inorganic and Analytical Chemistry, Corrensstraße 30, 48149 Münster, Germany

‡University of Münster, Institute of Plant Biology and Biotechnology, Schlossplatz 7, 48149 Münster, Germany

§European Virtual Institute for Speciation Analysis (EVISA), Mendelstraße 11, 48149 Münster, Germany

Figure S1 and S2

To ensure the reliability of the results obtained by bioimaging by means of LA-ICP-OES, further parts of tobacco plant stem sections have been analysed. Examples for the element distribution maps are shown in Figure S1and Figure S2. The general Ca, Na and K distribution shows the same pattern as revealed in the main article (Figure 1).

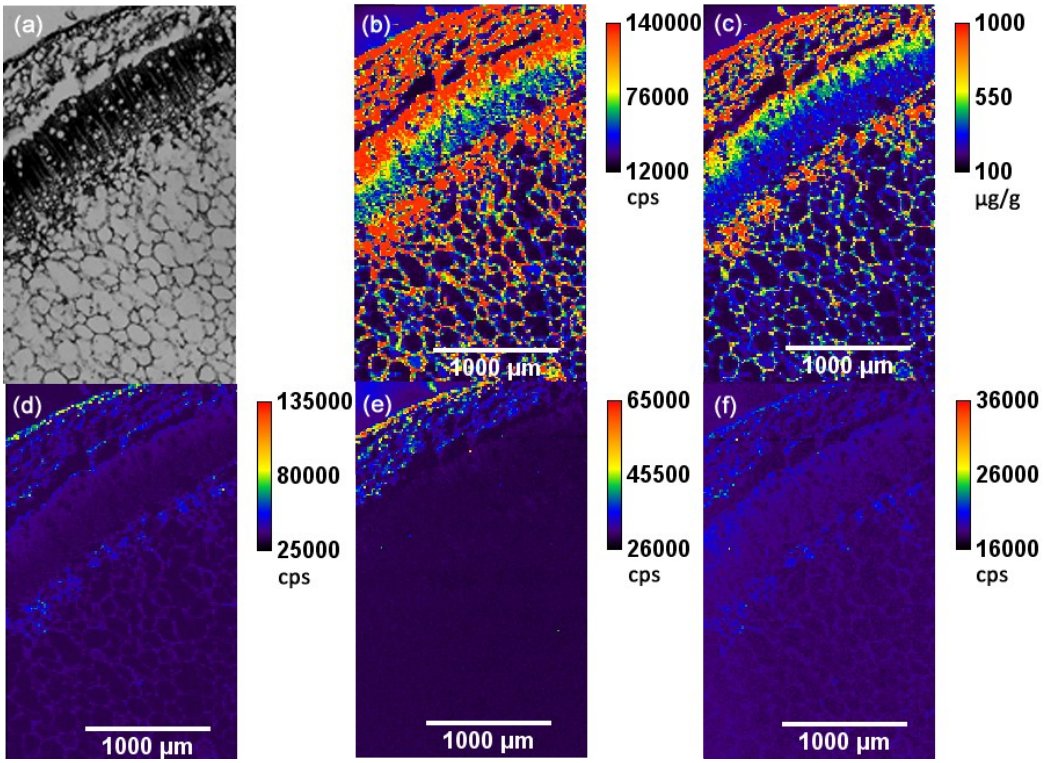

Figure S1 Microscopic image (a) and element distribution maps of a tobacco plant stem cross section observed with LA-ICP-OES: Ca at a wavelength of 393.366 nm (b), Ca (quantitatively) at a wavelength of 396.847 nm (c), Ca at a wavelength of 422.673 nm (d), Na at a wavelength of 589.592 nm (e), and K at a wavelength of 766.491 nm (f).

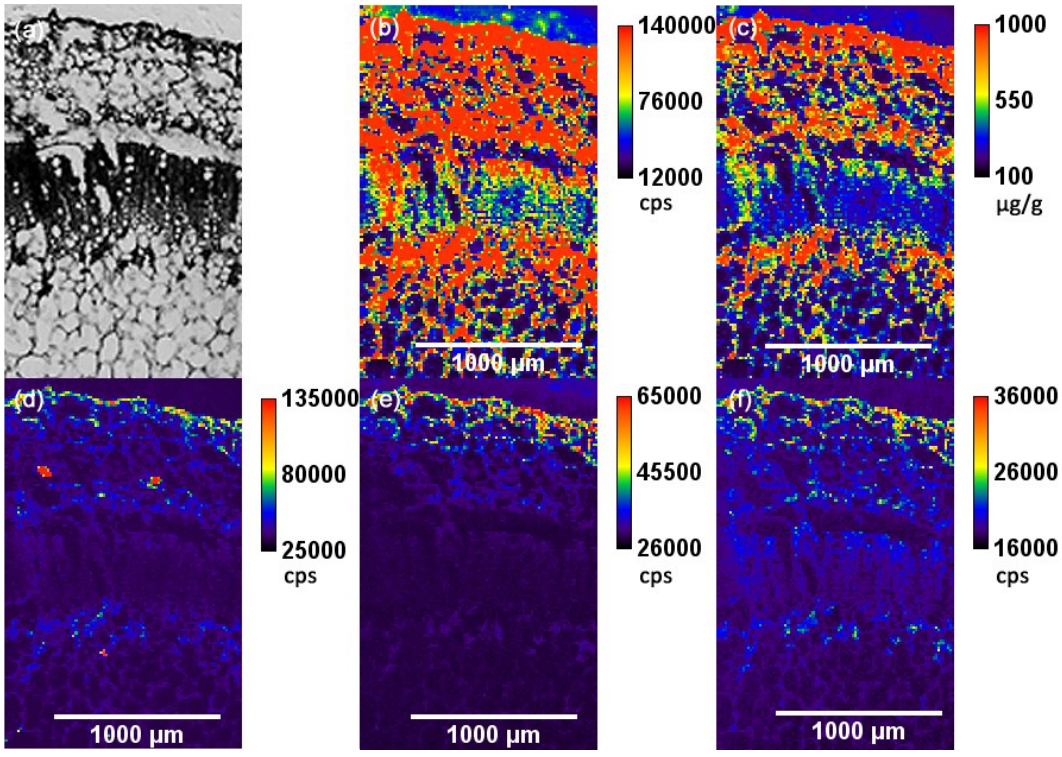

Figure S2 Microscopic image (a) and element distribution maps of a tobacco plant stem cross section observed with LA-ICP-OES: Ca at a wavelength of 393.366 nm (b), Ca (quantitatively) at a wavelength of 396.847 nm (c), Ca at a wavelength of 422.673 nm (d), Na at a wavelength of 589.592 nm (e), and K at a wavelength of 766.491 nm (f).