

4.2. CLSM autofluorescence imaging

Error! Reference source not found. and **Error! Reference source not found.** show micrographs are highlighting the lignin autofluorescence (in green) of the samples before and after the acid-oxidative hydrolysis, keeping the same laser excitation intensity, optical augmentation, and scan rate.

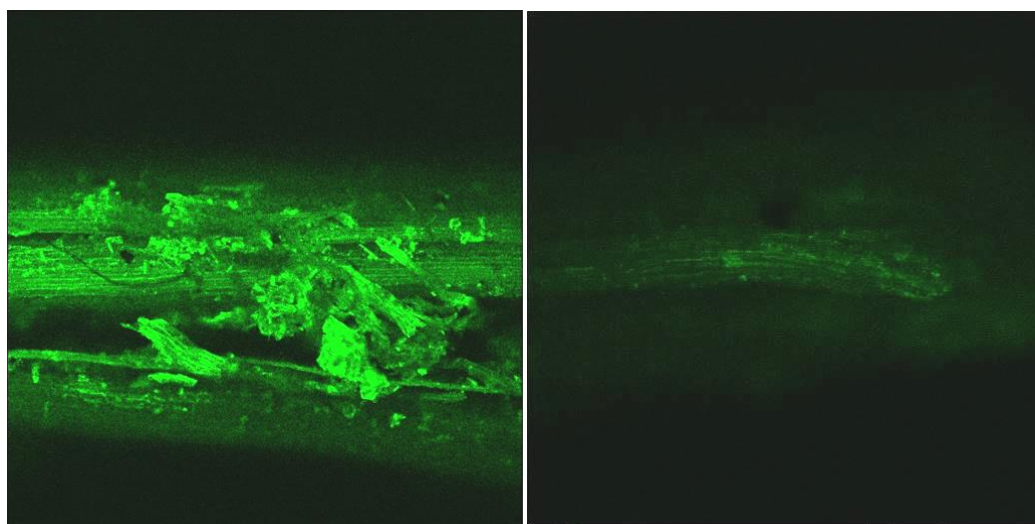


Figure 4. CLSM taken from the portion containing stems of the untreated sample (left) and the sample after the oxidative hydrolysis under conditions of Run #4 (right).

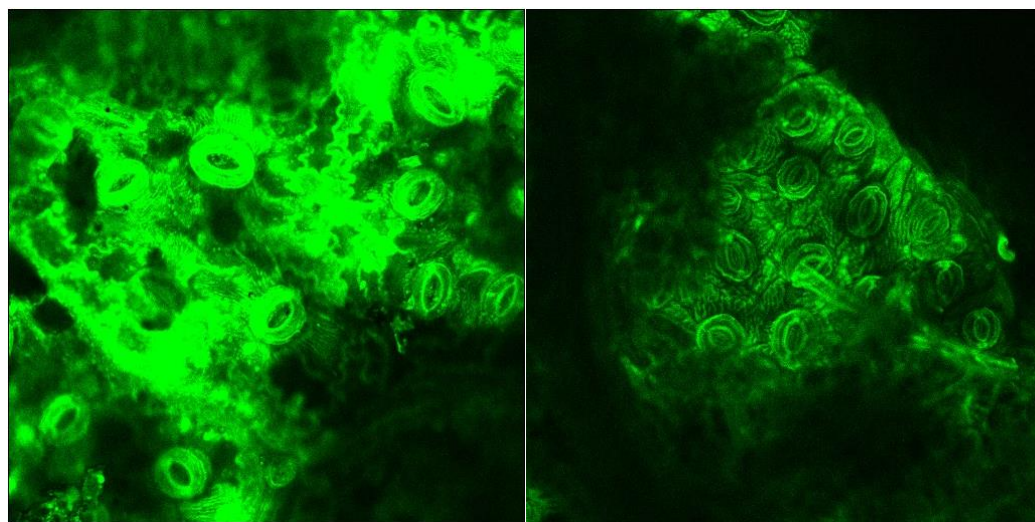


Figure 5. CLSM taken from a portion of the untreated leaf sample (left) and the sample after the oxidative hydrolysis under Run #4 (right) conditions.

A significant reduction of the lignin autofluorescence intensity is observed in the treated samples compared to the original, both in the leaves and stems portions of the LCW. **Error! Reference source not found.** shows details of a stoma from the nerve side of the leaves before and after treatment illustrating that the lignin content is high in the stomata region and largely removed by the treatment.