

## Accepted Manuscript

Title: Silicon transcriptionally regulates sulfur and ABA metabolism and delays leaf senescence in barley under combined sulfur deficiency and osmotic stress

Authors: Anne Maillard, Nusrat Ali, Adrian Schwarzenberg, Frank Jamois, Jean-Claude Yvin, Seyed Abdollah Hosseini



PII: S0098-8472(18)30834-7  
DOI: <https://doi.org/10.1016/j.envexpbot.2018.07.026>  
Reference: EEB 3522

To appear in: *Environmental and Experimental Botany*

Received date: 1-6-2018  
Revised date: 17-7-2018  
Accepted date: 28-7-2018

Please cite this article as: Maillard A, Ali N, Schwarzenberg A, Jamois F, Yvin J-Claude, Hosseini SA, Silicon transcriptionally regulates sulfur and ABA metabolism and delays leaf senescence in barley under combined sulfur deficiency and osmotic stress, *Environmental and Experimental Botany* (2018), <https://doi.org/10.1016/j.envexpbot.2018.07.026>

This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting proof before it is published in its final form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.

# **Silicon transcriptionally regulates sulfur and ABA metabolism and delays leaf senescence in barley under combined sulfur deficiency and osmotic stress**

**Anne Maillard<sup>1</sup>, Nusrat Ali<sup>1</sup>, Adrian Schwarzenberg<sup>1</sup>, Frank Jamois<sup>1</sup>, Jean-Claude Yvin<sup>1</sup> and Seyed Abdollah Hosseini<sup>1\*</sup>**

<sup>1</sup>Plant Nutrition Department, Centre Mondial de l'Innovation Roullier, 35400 Saint Malo, France

**Running title:** Silicon-sulfur interaction under osmotic stress

**\*Corresponding author:** Seyed Abdollah Hosseini Tel: +33(0)299205831 Email: [seyedabdollah.hosseini@roullier.com](mailto:seyedabdollah.hosseini@roullier.com)

## **Highlights**

- Silicon promotes barley growth and delays leaf senescence under combined S deficiency and osmotic stress.
- Silicon transcriptionally regulates sulfur metabolism under combined S deficiency and osmotic stress.
- Silicon transcriptionally regulates ABA metabolism and reduced ABA level under combined S deficiency and osmotic stress.

Download English Version:

<https://daneshyari.com/en/article/8886877>

Download Persian Version:

<https://daneshyari.com/article/8886877>

[Daneshyari.com](https://daneshyari.com)