**Supplementary Information for** 1 2 Silica nanoparticle accumulation in plants: Current state and 3 future perspectives 4 Wei Pan, a Hong-Jie Zhang, Yu-Feng Zhang, Mei Wang, Martin Tsz-Ki Tsui, Liuyan Yang 5 and Ai-Jun Miaoa\* 6 7 8 <sup>a</sup>State Key Laboratory of Pollution Control and Resource Reuse, School of the Environment, 9 Nanjing University, Nanjing, Jiangsu Province, 210023, China PRC 10 <sup>b</sup>School of Life Sciences, Earth and Environmental Sciences Programme, State Key Laboratory 11 of Agrobiotechnology, The Chinese University of Hong Kong, Shatin, Hong Kong SAR, China 12 **PRC** 13 14 15 \*Corresponding author: 16 A.-J. Miao, School of the Environment, Nanjing University, Mail box 24, Xianlin Road 163, 17 Nanjing 210023, Jiangsu Province, China PRC (mailing address), 86-25-89680255 (phone), 18 86-25-89680569 (fax), miaoaj@nju.edu.cn (email) 19 20

## **Table S1.** The content of Si in different crops.<sup>1</sup>

Crop	Si content (% dry matter)
Rice	4.2
Wheat	2.5
Barely	1.8
Sugarcane	1.5
Soybean	1.4
Corn	0.8
Cassava	0.5

## 24 **Table S2.** Distribution of Si in different parts of oat plants.<sup>2</sup>

Plant part	Si content (% dry matter)
Leaf blade	2.48
Leaf sheath	1.9
Culm	0.48
Inflorescence (excluding caryopsis)	3.6
Caryopsis	0.03
Miscellaneous (secondary tillers)	1.93
Whole tops	1.37

25

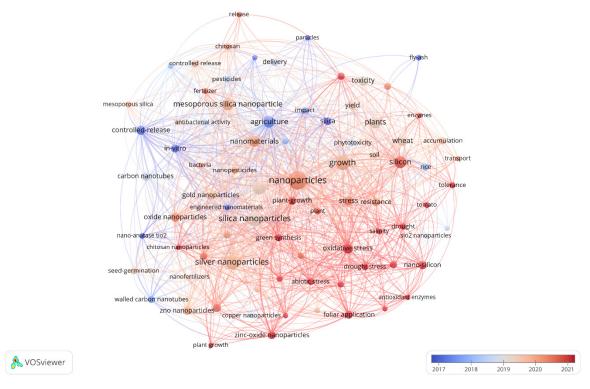
26

30

31

## Reference

- 27 1. S. Maryam and A. Gul, In Plant Metal and Metalloid Transporters, Springer Science, 2022,
- 28 **12**, 245–273.
- 29 2. L. H. P. Jones, and K. A. Handreck, *Adv. Agron.* 1967, **19**, 107–149



**Figure S1.** Co-occurrence analysis of keywords related to the publication trends on silica nanoparticles (SiO<sub>2</sub> NPs) and plants conducted using VOSviewer 1.6.18. Syntax in the topic search: "TS = (("nano SiO<sub>2</sub>" OR ((Si or SiO<sub>2</sub>) AND (nanoparticle\* OR particle\*)) OR ((silicon or silica) AND (nanoparticle\* OR particle\*))) AND (plant) AND (agriculture\*))". The frequency of keyword occurrence is represented by the size of the circle; the links depict the connections among keywords. The color of the circles and links reflects the year, as indicated in the color bar.