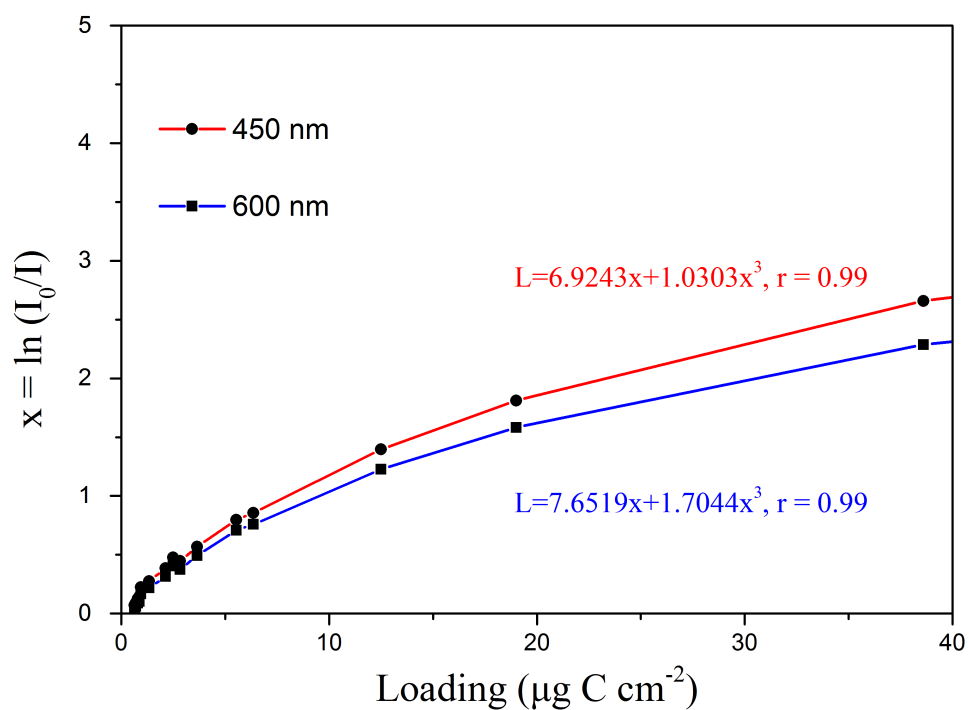


Supporting Information for

**Iron oxides in the cryoconite on the glaciers over Tibetan Plateau:  
abundance, speciation and implications**

Zhiyuan Cong<sup>1,5,\*</sup>, Shaopeng Gao<sup>1</sup>, Wancang Zhao<sup>3</sup>, Xin Wang<sup>4</sup>, Guangming Wu<sup>1,6</sup>, Yulan  
Zhang<sup>2</sup>, Shichang Kang<sup>2,5,\*</sup>, Yongqin Liu<sup>1</sup>, and Junfeng Ji<sup>3</sup>

- 1 Key Laboratory of Tibetan Environment Changes and Land Surface Processes, Institute of Tibetan Plateau Research, Chinese Academy of Sciences, Beijing 100101, China
- 2 State Key Laboratory of Cryospheric Sciences, Northwest Institute of Eco-Environment and Resources, Chinese Academy of Sciences, Lanzhou 730000, China
- 3 Key Laboratory of Surficial Geochemistry, Ministry of Education, School of Earth Sciences and Engineering, Nanjing University, Nanjing 210023, China
- 4 Key Laboratory for Semi-Arid Climate Change of the Ministry of Education, College of Atmospheric Sciences, Lanzhou University, Lanzhou 730000, China
- 5 CAS Center for Excellence in Tibetan Plateau Earth Sciences, Beijing 100101, China
- 6 University of Chinese Academy of Sciences, Beijing 100049, China



**Figure S1.** The calibration curve for 450 nm (red) and 600 nm (blue) against black carbon standards (fullerene soot). The solid curves were derived from best-fit of third-order polynomial between loading and attenuation, with the correlation coefficient ( $r$ ) of 0.99.