



Supplement of

Occurrence of structural aluminium (Al) in marine diatom biological silica: visible evidence from microscopic analysis

Qian Tian et al.

Correspondence to: Dong Liu (liudong@gig.ac.cn)

The copyright of individual parts of the supplement might differ from the article licence.

Table S1. Artificial seawater components and concentrations

Components	Concentration (g/L)
NaCl	20.758
Na ₂ SO ₄	3.477
KCl	0.587
NaHCO ₃	0.170
KBr	0.0845
H ₃ BO ₃	0.0225
NaF	0.0027
MgCl ₂ · 6H ₂ O	9.395
CaCl ₂ · 2H ₂ O	1.316
SrCl ₂ · 6H ₂ O	0.0214

Table S2. F/2 Medium components and their concentrations in the artificial seawater

Components	Molar concentration in final medium
NaNO ₃	8.82×10^{-4} M
NaH ₂ PO ₄ ·H ₂ O	3.62×10^{-5} M
Na ₂ SiO ₃ ·9H ₂ O	1.06×10^{-4} M
FeCl ₃ ·6H ₂ O	1.17×10^{-5} M
Na ₂ EDTA·2H ₂ O	1.17×10^{-5} M
CuSO ₄ ·5H ₂ O	3.93×10^{-8} M
Na ₂ MoO ₄ ·2H ₂ O	2.60×10^{-8} M
ZnSO ₄ ·7H ₂ O	7.65×10^{-8} M
CoCl ₂ ·6H ₂ O	4.20×10^{-8} M
MnCl ₂ ·4H ₂ O	9.10×10^{-7} M
Thiamine HCl (Vit B1)	2.96×10^{-7} M
Biotin (Vit H)	2.05×10^{-9} M
Cyanocobalamin (Vit B ₁₂)	3.69×10^{-10} M

Fig. S1

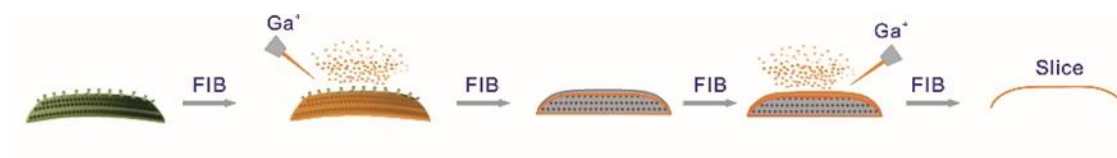


Fig. S1 Schematic representation of FIB-milling processes on the BSi particle

Fig. S2

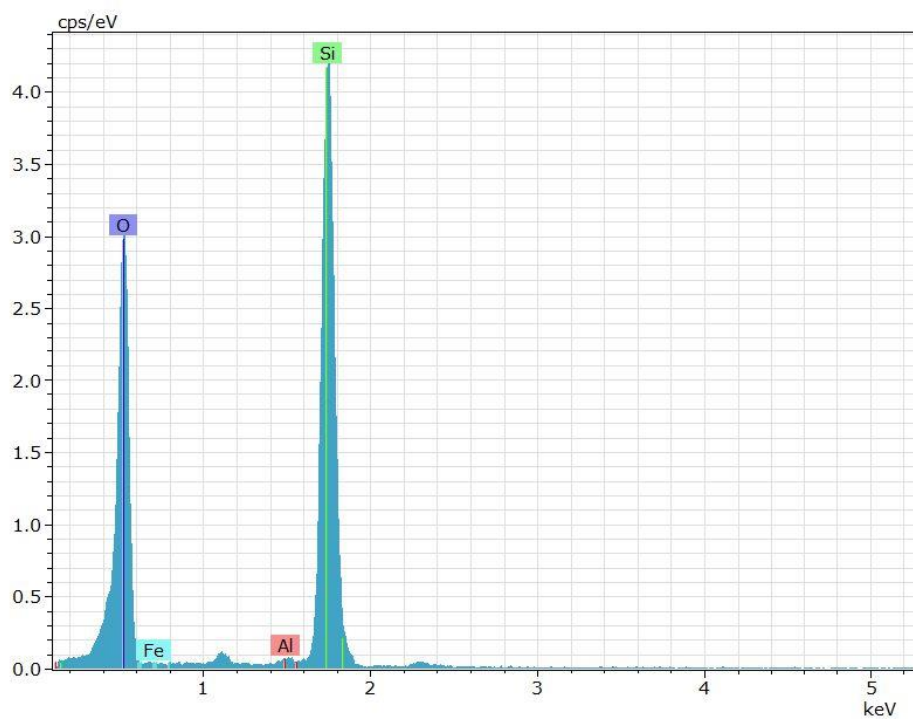


Fig. S2 EDS spectra data from FIB-EDS-mapping

Fig. S3

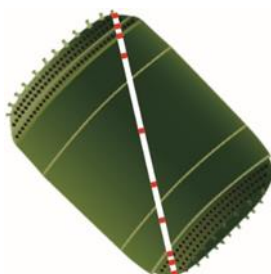


Fig. S3. Schematic representation of the selection of EDS spots (red spots are the positions of EDS)