隕石中の酸化物の酸素同位体組成

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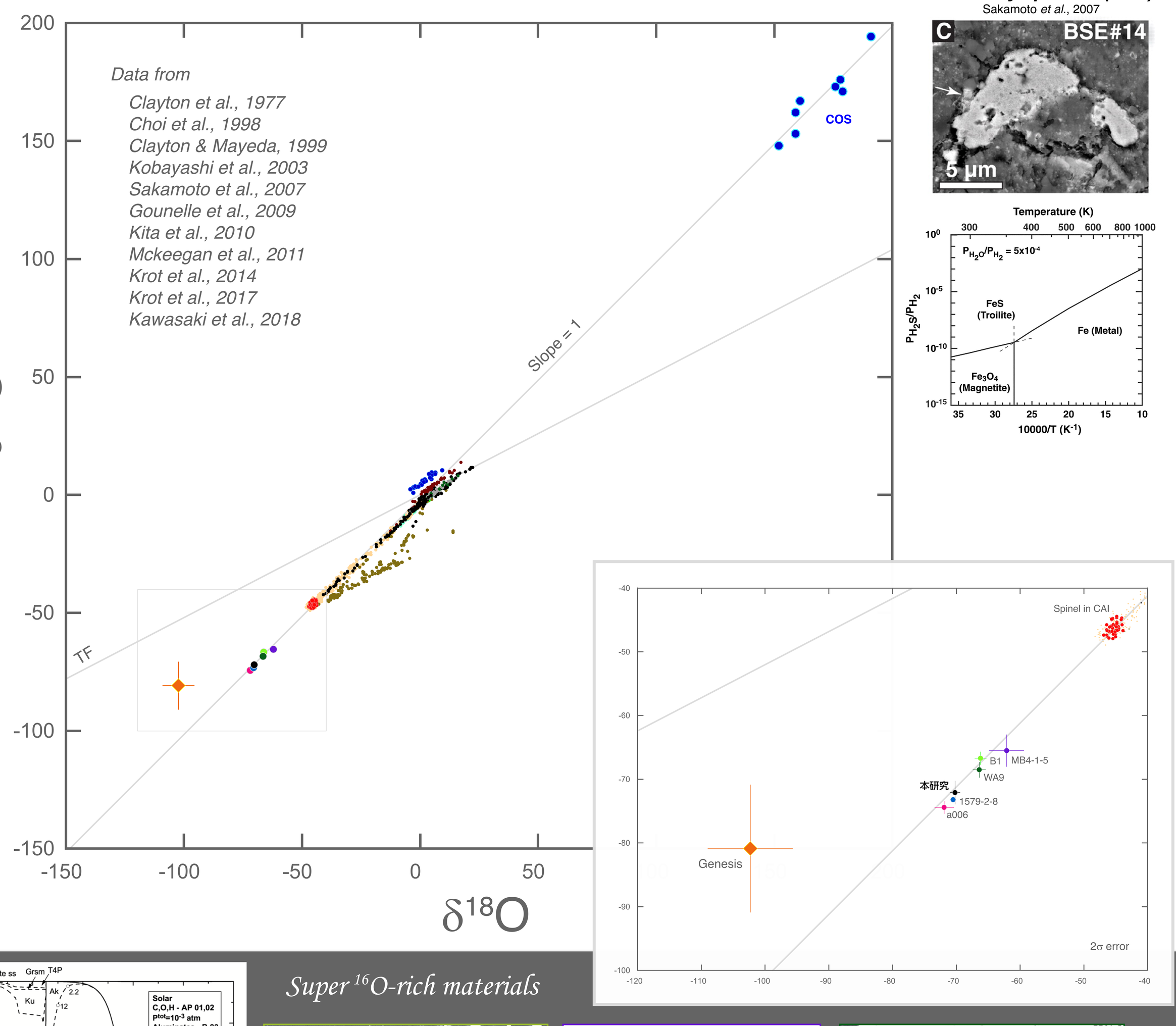
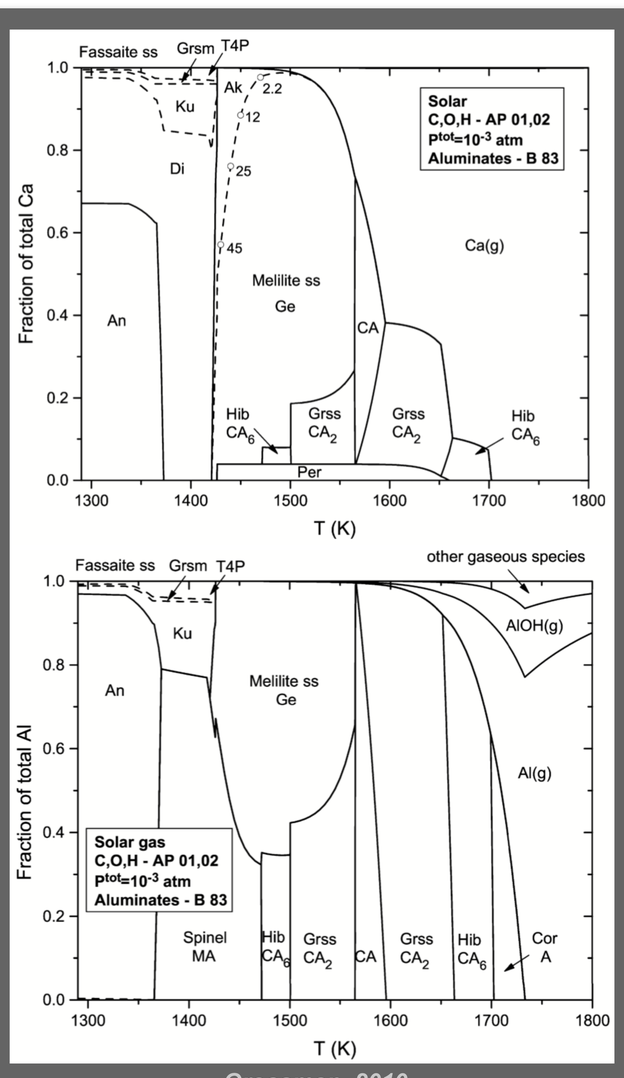
Oxygen in the solar system is believed to be mixing of ^{17,18}O-rich and ^{16}O-rich reservoirs (e.g. Yurimoto et al., 2008 and references therein). The ^{17,18}O-rich end member ($\delta^{17,18}O \approx +180‰$) was found from magnetite in cosmic symplectite (Sakamoto et al., 2007) . Nevertheless candidates of ^{16}O-rich end member were reported from one chondrule, 4 Ca-Al-rich inclusions (CAI) and the Sun, characteristics of the reservoir are unclear because of diversity of few samples (Kobayashi et al., 2003; Gounelle et al., 2009; McKeegan et al., 2011; Krot et al., 2017). Therefore, we are investigating super ^{16}O-rich components in carbonaceous chondrites, especially focus on oxides formed at high temperature.

The Solar System in Oxygen Isotope Space



Cosmic Symplectite (COS)
Sakamoto *et al.*, 2007

Super ^{16}O-rich materials



Grossman, 2010

Gounelle et al., 2009

Krot et al., 2017

Gounelle et al., 2009

Kobayashi et al., 2003

Krot et al., 2017

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