

## 火星の大気主成分凝結を考慮した MGS 電波掩蔽観測データの再導出とその応用 Estimation of Martian atmospheric composition change caused by CO<sub>2</sub> condensation and its application to radio occultation

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We estimated the Martian atmospheric composition change caused by CO<sub>2</sub> condensation using the Ar measurements obtained by Gamma Ray Spectrometer (GRS) onboard the 2001 Mars Odyssey. We applied this estimation of the composition change to the rederivation of the radio occultation (RO) measurements of Mars Global Surveyor (MGS) obtained at polar latitudes of the winter hemisphere, because the MGS RO standard product which is available to the public did not consider the atmospheric composition change by CO<sub>2</sub> condensation. Using the rederived MGS RO measurements, we investigated the occurrence of CO<sub>2</sub> supersaturation in the Martian polar winter atmosphere and found that there were more supersaturation in the rederived data than in the original data.

キーワード: 火星, CO<sub>2</sub>, 過飽和, 凝結, 電波掩蔽  
Keywords: Mars, CO<sub>2</sub>, supersaturation, condensation, radio occultation