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Development of Martian meteorological Instruments

Naohito Otobe^{1*}, George L. Hashimoto², Kazunori Ogohara³, Yoshiyuki O. Takahashi⁴, YoshiYuki Hayashi⁵, Tetsuya Takemi⁶, Ichiro Tamagawa⁷, Mutsumi Suzuki³, MELOS Lander Met. Working Group⁸

¹Fukuoka Univ. Dept of Sci., ²Okayama Univ. grad school of Natural Sci., ³ISAS/JAXA, ⁴Center For Planetary Science, ⁵Kobe Univ. Dept of Sci., ⁶Kyoto Univ. DPRI, ⁷Gifu Univ. River Basin Res. Center, ⁸MELOS Lander Met. Working Group

We are developing weather observation instruments install on the lander of Mars of MELOS.

At now, there are some observation on Mars, but all observation are made with basic instruments.

Then, we are examining two kinds of instruments at the same time.

One of that is a set of basic instruments, the thermometer made of thermocouple or so, the manometer, these are always used for radiosonde. And a hot-film (similar to hot-wire) anemometer, this type is boarded on Viking.

The other instruments are mainly sonic anemometer, it improve high accuracy and high frequency in low electrical power.

Mars has a very low pressure of CO₂ atmosphere, sonic wave damping is very strong, so development has a difficulty.

However some reports say it will be possible, and we are examining a possibility, we report mainly around the progress of this possibility test.

Keywords: Mars, Meteorology, anemometer, Lander, MELOS