Abstracts

Atmospheric Noise in the Far Infrared (300-3000 µm)

S. Corsi, G. Dall'Oglio, S. Fonti, I. Guidi, B. Melchiorri, F. Melchiorri, V. Natale, F. Mencaraglia, P. Lombardini, P. Trivero and S. Sivertsen. "Atmospheric Noise in the Far Infrared (300-3000 µm)." 1974 Transactions on Microwave Theory and Techniques 22.12 (Dec. 1974, Part I [T-MTT] (Special Issue on the Proceedings of the First International Conference on Submillimeter Waves and Their Applications)): 1036-1041.

Noise measurements in the frequency regions 5-200 HZ and 5.2 x 10/sup -4/ -8.3 x 10/sup -3/ Hz have been performed in the wavelength region between 300 and 3000 µm from the high altitude observatory of Tests Grigia, Italy (3.500 m). In the high frequency region a specially designed Ge bolometer operating in background-limited-infrared-photoconductor conditions matched to a 1.5-m telescope has been used, while at low frequency a radiometer designed for atmospheric transmittance measurements was employed. In both regions no excess noise with respect to the photon noise relative to 300-K blackbody has been detected.

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