

STUDY UV BACKGROUND BY THE ISUAL EXPERIMENT

M.A. Huang

Institute of Physics, Academia Sinica, NanKang, Taipei, Taiwan, 11529, ROC.
huangmh@phys.sinica.edu.tw

The UV background is an important noise for space borne air-fluorescent experiment such as OWL. However, very few information are known. One of the possible noises is the lightning. Some return stroke can reach 0.5 times speed of light and could be misidentified as an up-going neutrino signal. The ISUAL (Imaging Spectrometer of Upper Atmosphere Lighting) experiment on ROC-SAT 2 will make global surveys of lightning induced luminous phenomena from orbit. The ISUAL have a 6 channel spectrophotometer, two channels target at 337.1nm and 391.4nm, the UV signals used by air-fluorescent experiments. The ROCSAT-2 is schedule to launch at middle of 2002 and stay for 5 years. The ISUAL will collect the global distribution of upper atmosphere lighting. The knowledge learned by ISUAL could help experiments such as OWL to reduce background due to lightning.