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## Venusian cloud top temperature obtained by LIR onboard Akatsuki

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Venus orbit insertion of Akatsuki which has been launched on 21 May 2010 has been postponed until in six years. However, the Longwave Infrared Camera (LIR), which mounts an uncooled micro-bolometer array (UMBA), has succeeded in taking images of the Earth and the deep space immediately after the launch and during the cruise to Venus. Furthermore, It has succeeded in taking the image of Venus from six hundred thousand kilometers distance. LIR detects thermal emission from the top of the sulfur dioxide cloud of Venus in a wavelength region 8-12  $\mu\text{m}$  to map the cloud-top temperature which is typically as low as 230 K. The image of Venus which has been calibrated and verified using the earth or deep space images showed the obvious cold polar collars and zonal wave structures. These features have started to be compared with results of the ground observation. They also will be compared with images of the Ultraviolet Imager (UVI) onboard Akatsuki, or the Venus Monitoring Camera (VMC) onboard the Venus Express.

Keywords: Venus