remote sensing

MDPI

Article

Detection of Methane Plumes Using Airborne Midwave Infrared (3-5 μm) Hyperspectral Data

Rebecca Del´Papa Moreira Scafutto, Carlos Roberto de Souza Filho

Supplementary Material

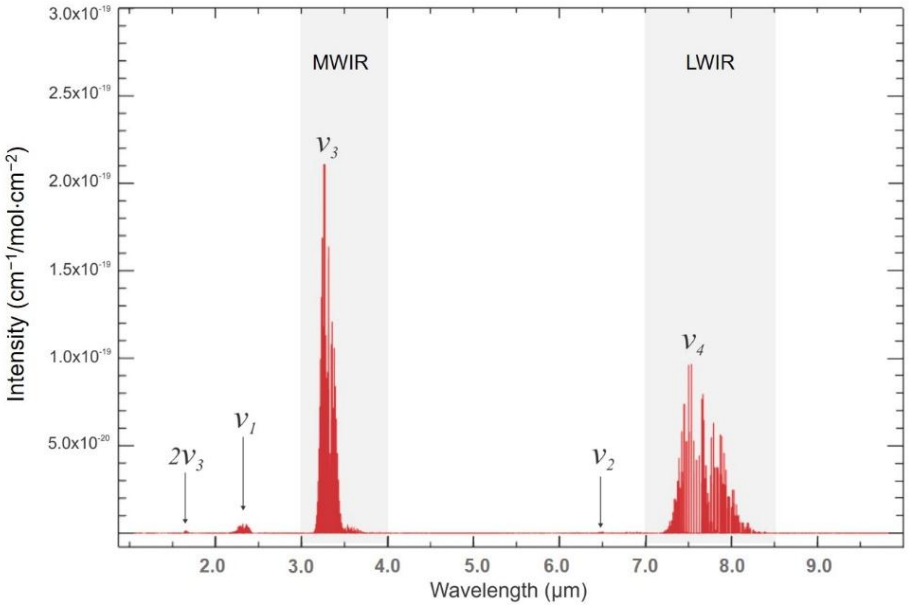

Figure S1. HITRAN spectral lines of methane (CH_4) at a temperature of 296 K [18]. The location of fundamental vibrations is indicated in the plot as v_1, v_2, v_3, v_4.

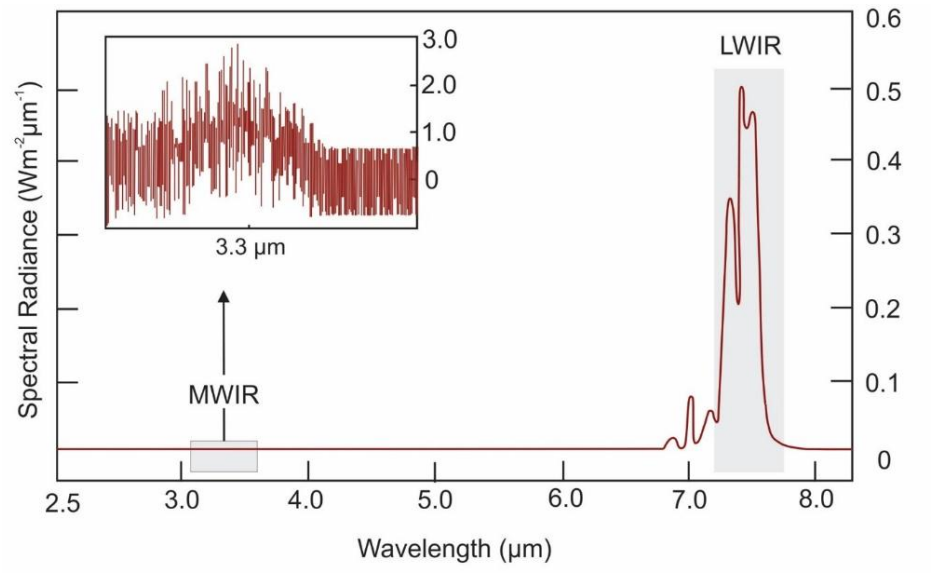

Figure S2. Methane self-emission spectrum acquired under ambient conditions (298 K/25°C) with the HYPER-CAM MWE (1.5–5 µm) and the HYPER-CAM METHANE (7.4–8.3 µm) hyperspectral cameras operated by TELOPS INC. (Quebec City, QC – Canada - http://telops.com/products/hyperspectral-cameras). Both cameras have user-selectable spectral resolution up to 0.25 cm^{-1} and a NESR* (nw/cm^2 s cm^{-1}) of 7 and 6 for MWIR and LWIR, respectively (* noise equivalent spectral radiance).