

SO₂ Profiles during the Kilauea Eruption

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We report on vertical sulfur dioxide (SO₂) profiles of nine flights that used a single-pump SO₂ sonde and took place from 21–30 June 2018 on the Big Island of Hawaii during the then ongoing Kilauea lower East Rift Zone eruption. The launch site for all flights was downwind of the eruption on the southern portion of the island. The single-pump SO₂ sonde has an increased upper detection limit beyond what was available using a dual-sonde approach, where the latter was limited to SO₂ concentrations that were less than the ozone concentration.

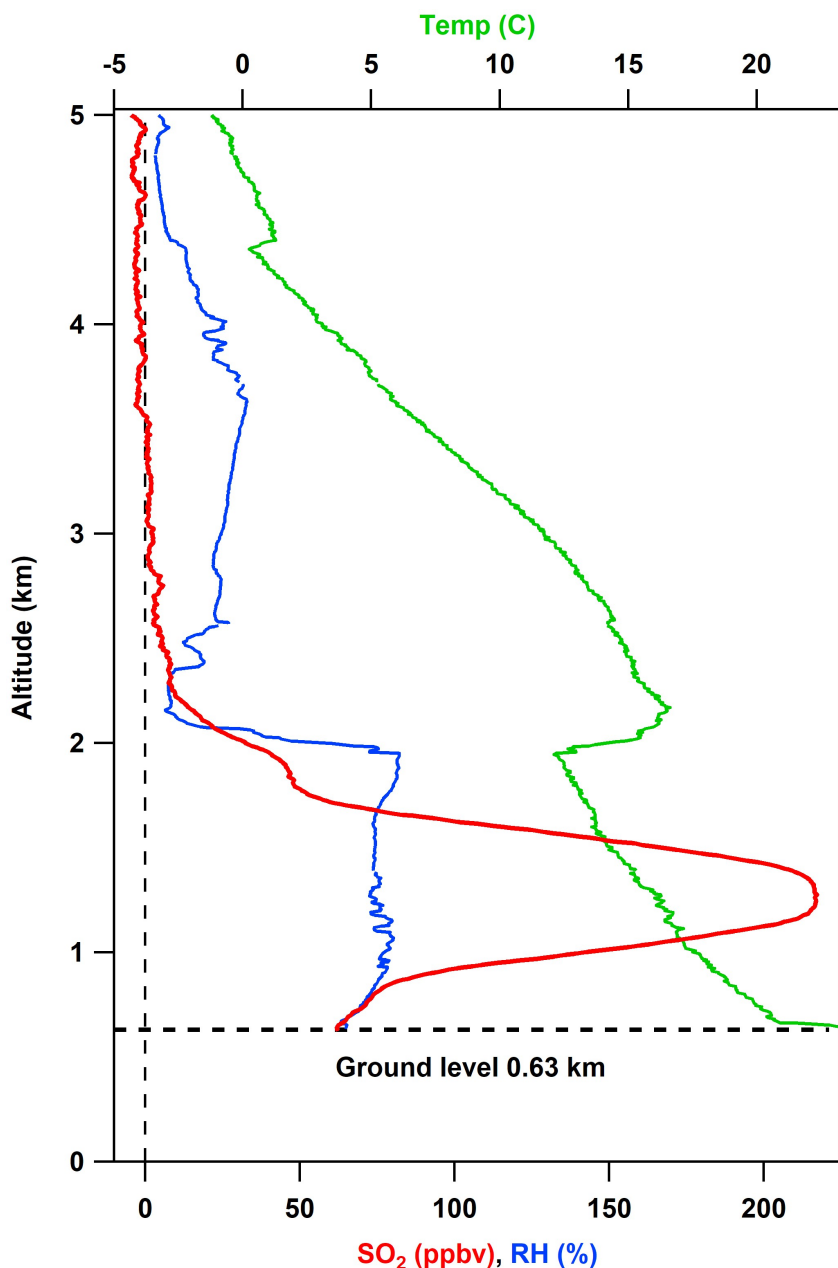


Figure 1. Vertical profile of SO₂ for flight taking place on 26 June 2018 near Kahuku Ranch on the southern part of the Island of Hawaii downwind of the then ongoing Kilauea lower East Rift Zone eruption.