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Abstract:

The Kilauea volcano has been erupting continuously since 1983. The two vents, Pu`u`O`o and Halema`uma`u, together produce about 1,000 tons of SO₂ every day. When SO₂ from the volcano is being released into the atmosphere it reacts with sunlight, dust and moisture to produce sulfuric aerosols (PM_{2.5}) or what we know as vog. During light and variable or southerly winds the vog can travel from the Big Island to Oahu, home to about 1 million people. The small particles from vog can penetrate deep into the human lung and cause asthma-like symptoms along with headaches, eye-