

## NEAR-GLOBAL ATMOSPHERIC DISTRIBUTIONS OF CARBONYL SULFIDE (OCS) ISOTOPOLOGUES

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The distributions of the three most abundant isotopologues of carbonyl sulfide (OCS, O<sup>13</sup>CS, and OC<sup>34</sup>S) have been measured in the Earth's stratosphere by infrared remote sensing with the Atmospheric Chemistry Experiment (ACE) Fourier transform spectrometer. These satellite observations have provided a near-global picture of OCS isotopic fractionation. The ACE data indicate a different enrichment trend with altitude for the O<sup>13</sup>CS and OC<sup>34</sup>S isotopologues. The seasonal variation of the isotopologue enrichment was also studied using the ACE data. The Whole Atmosphere Community Climate Model (WACCM) has been used to model OCS and its isotopologue distributions in the stratosphere.