A STUDY OF DIMETHYLSULFOXIDE (DMSO) OXIDATION WITH A GLOBAL SULFUR CYCLE MODEL

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Recent field studies at high- and mid- southern latitudes have revealed the existence of an heterogeneous sink of DMSO, leading to methanesulfonic acid (MSA). A global sulfur cycle model (LMD-ZT), which does not feature this reaction, is run. Expectedly, DMSO concentrations are overestimated at high-southern latitudes, but, unexpectedly, they are well simulated at mid-southern latitudes. This forces to question the observational quantification of the heterogeneous DMSO sink at mid-southern latitudes.