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Modelling isoprene chemistry in a GCM

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Isoprene (C_5H_8) is an important trace gas emitted from the biosphere, having an emission flux that is postulated to be similar to that of methane, whilst being much more reactive. Recently a reduced isoprene atmospheric chemistry scheme has been added to the global circulation model (GCM) used at Cambridge University: the Unified Model (UM). This presentation discusses the implementation and adaption of the Mainz Isoprene Mechanism (MIM) (Pöschl et al. 2000, *J. Atmos. Chem.*, **37**, 29-52) into the UM, focussing on the fate of some of the intermediate species of isoprene oxidation. There are also some results that look at the effects of manipulating the isoprene emission field, using simple experiments with the GEIA isoprene emission inventory (see http://www.geiacenter.org).