

Effects of supernova induced soft X-rays on middle and upper atmospheric nitric oxide and stratospheric ozone

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There are files for two applications of CHEM1D. CHEM1D is photochemical box model and used as part of this study. ” The scientific society, European Geophysical Union, requires that computer data accompany any journal article. Included in this data release are:

1. 13 fortran files which comprise the CHEM1D model
 2. a total of 11 input files that are used by CHEM1D:
 - 6 are *.INP, 3 are *.DAT and 2 are *t_m_p.txt (temperature/pressure profiles used in the simulations)
 3. 5 restart files that are used to initialize CHEM1D. Two are to perform simulations of the the Hunga volcano H2O plume and three (nox*.res) are for the supernova simulations
 4. 5 python readable IDLsave files of model output: two for the Hunga simulations and 3 for the supernova simulations
 5. two different scripts to run the model for the two scenarios (chem1d_run_supernova and chem1d_run_hunga)
 6. two compile guides (compile*.txt)
 7. two idl codes for reading output
- A total of 41 files including this description.