

## Chemistry Conversion Modules

Normally pollutants are treated independently – one pollutant per particle. However multiple pollutants per particle can be defined by enabling the simple in-line-chemical conversion module through the “advanced configuration” menu. To demonstrate this capability first run the [base simulation](#) for one pollutant, [configured](#) similar to the previous example (36-km MM5, 6-h duration). Next configure the model for two pollutants, through the “Pollutant, Grid, Deposition” setup menu. Give each pollutant a unique name and configure the 2<sup>nd</sup> pollutant for no emissions. Running the model with [this configuration](#) will give the same

result as before. Enable the 10%/hour chemical conversion module through the “[advanced configuration](#)” menu and running the model will now produce concentrations in the second pollutant.



Multiple pollutants can be selected from the “Display Concentration” menu. The “All” option sums pollutants to one map.

The default 10% per hour conversion is not very interesting. The rate can be modified by creating a “[chemrate.txt](#)” file to define the species index and for this example a 50% conversion rate. If the file is placed in the model startup directory, the conversion module will use these values and produce the following results for the two pollutants.

