

## Global Trends in Atmospheric SF<sub>6</sub>

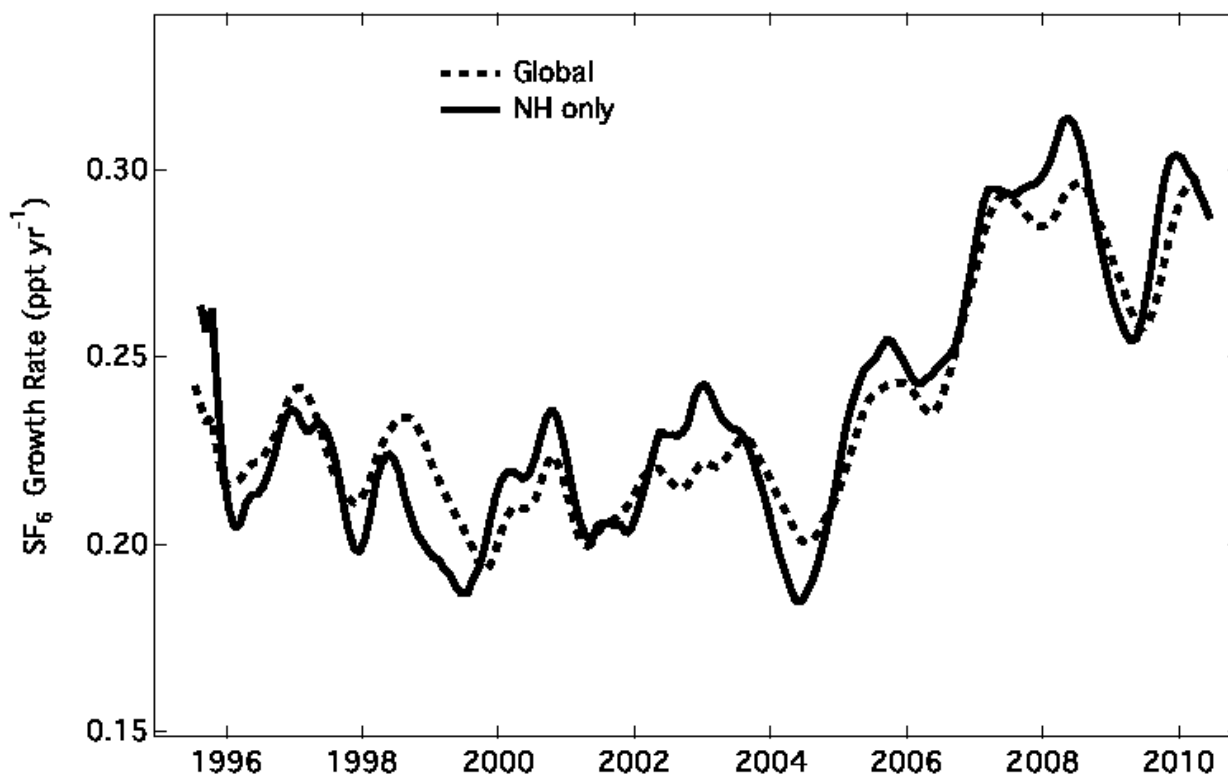
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Sulfur hexafluoride (SF<sub>6</sub>) is a potent greenhouse gas and useful atmospheric tracer. NOAA SF<sub>6</sub> measurements from two Earth System Research Laboratory/Global Monitoring Division programs (flask and *in situ*) were combined to produce global and hemispheric mean records. There were then used to examine changes in the growth rate of SF<sub>6</sub> and corresponding SF<sub>6</sub> emissions. Global emissions and mixing ratios from 2000-2008 are consistent with recently published work. More recent observations show a 10% decline in SF<sub>6</sub> emissions in 2008-2009, corresponding with a decrease in world economic output. This decline was short-lived, as the global SF<sub>6</sub> growth rate has recently increased to near its 2007-2008 maximum value of 0.29 ppt yr<sup>-1</sup>. Interannual variability of the SF<sub>6</sub> growth is examined, along with implications for changing emissions.



**Figure 1.** Growth rate of SF<sub>6</sub> calculated from global and Northern Hemispheric mean SF<sub>6</sub> mixing ratios.