

We Must Understand and Address the Hydroxyl Radical of the Atmosphere, or More Life Dies.

Hydroxyl is made mainly by the sunlight based breakdown of ozone where an ozone atom, O^* combines with water, H_2O , to form $2OH^*$, and it provides a colossally important set of ecosystem services for the planet and its lifeforms every day. Due to human activities, it is now completely inundated, which will lengthen the climate disaster, and continue to kill more than 20 million people per year. (10million dies from bad air quality, and 10 million die from climate related drought, flood, inclement weather, starvation).

Scientists generally do not understand the hydroxyl infrastructure, therefore it has been neglected, disrespected, and abused with almost no end in sight. Positive climate feedbacks like runaway methane release are now the consequences of this oversight.

Hydroxyl is responsible for:

- Fastest GHG removal-all types-all at once: oxidizes methane, SLCPs, ODS, PFCs, and hydrolyzes CO_2 via enhanced weathering (20B Tonne annual sink capacity of Earth system)
- Attaches to all particulates, aerosols and molecules including forever chemicals, promoting deposition to ground. This helps with ozone layer repair, air quality.
- Kills Viruses.
- Kills mould.
- Kills unwanted/unfriendly bacteria.
- Deodorizes.
- Removes non GHG pollutants like Nox and maintains air quality at adequate capacity.
- Provides surfactant services to mixing weather fronts which reduces weather extremes.
- Is involved in precipitation mechanics, and triggers coalescence, droplet formation and precipitation.
- Increases cloud albedo when sufficient via regularized convection cycles that produce “clean” clouds.
- Reduces/controls tropospheric ozone levels.
- Ages aerosols into CCN (cloud condensation friendly nuclei).
- Reduces/controls VOCs, volatile organic pollutants.
- Removes smoke.
- Increases mineral diversity, which leads to plant diversity.
- Increases biodiversity after large scale hydroxyl based oxidation events as widely noted in the fossil record and peer reviewed literature.

Hydroxyl can be replenished and increased to help with the climate disaster by quickly removing all GHGs at once when dispersed at scale. There is developed, scalable, affordable dispersal technology that can be found at <https://www.reduciotech.com>. It's bad but we can act by scaling this technology.

“We Ignore the Hydroxyl’s Inundation at Our Gravest Peril”

