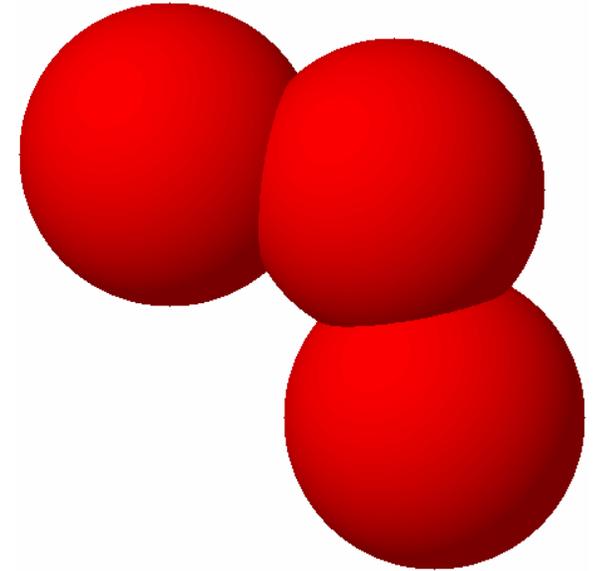


# Ozon



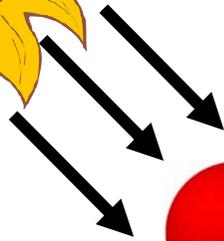
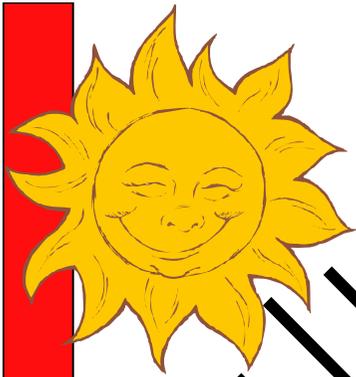
- Trisauerstoff
- chemische Formel:  $O_3$
- farbloses, giftiges Gas
- starkes Oxidationsmittel
- typischer Geruch  
(griech.: ozein = nach etwas riechen)
- Anwendungen:
  - Desinfektionsmittel
  - Bleichmittel
  - zur künstlichen Alterung von Weinbrand

# Ozon

- Vorkommen:
  - ca.  $10^{-5}$  Vol.-% der Lufthülle
  - 90% des Ozon in der Stratosphäre (Maximum in ca. 30km Höhe)
    - ➔ **UV-Absorber (Lichtfilter für kurzwellige besonders hautaktive UV-Strahlung)**
  - bodennahes Ozon bewirkt:
    - Baumsterben
    - Atemwegsbeschwerden
    - erhöhte Korrosion

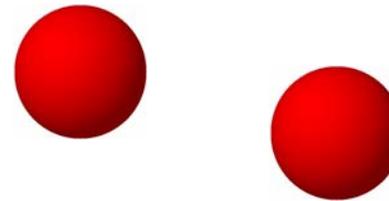


# Entstehung von Ozon

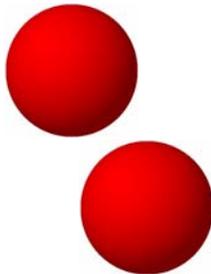


O<sub>2</sub> - Molekül

$h\nu$  (Licht)

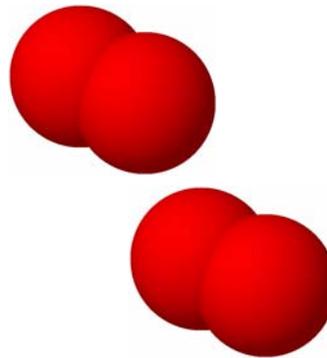


atomarer Sauerstoff

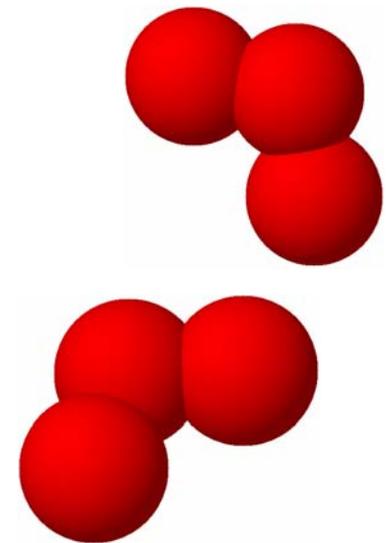


atomarer Sauerstoff

+

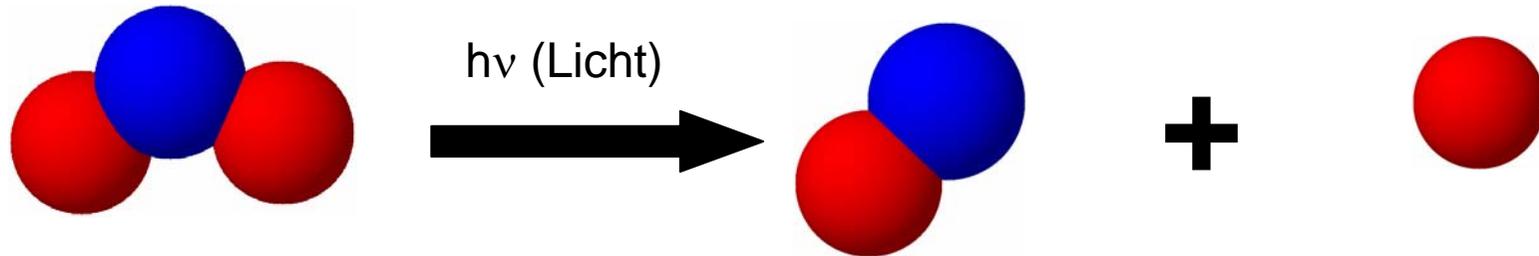


O<sub>2</sub> - Moleküle



Ozon (O<sub>3</sub> - Moleküle)

# Ozon aus Abgasen



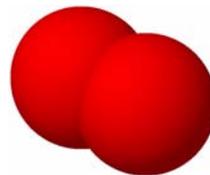
NO<sub>2</sub> - Stickstoffdioxid

NO - Stickstoffmonoxid

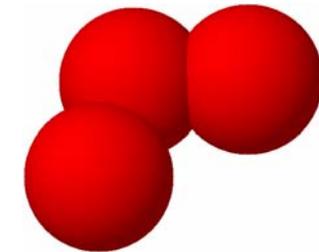
atomarer Sauerstoff



O (atomarer Sauerstoff)

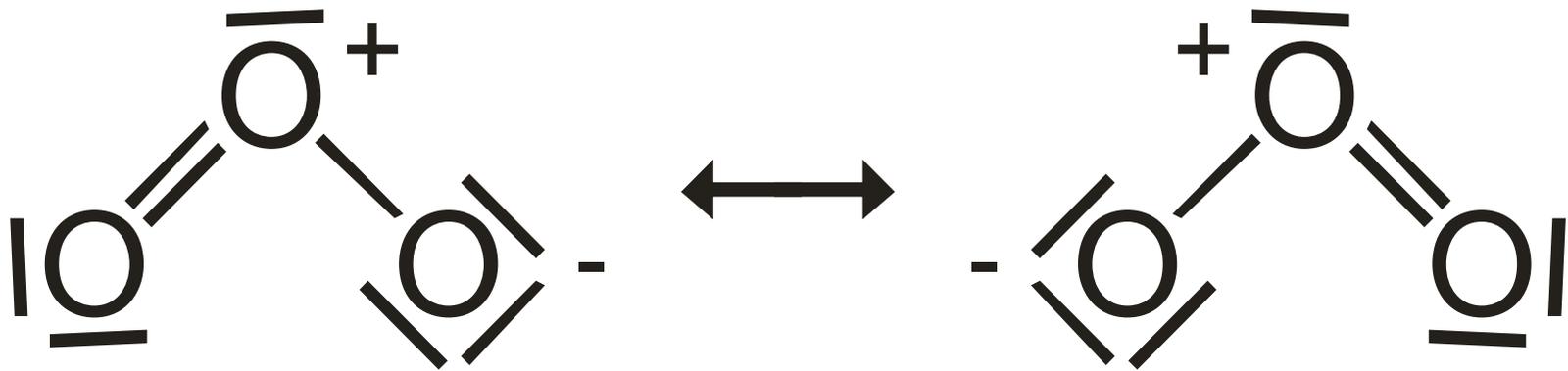


O<sub>2</sub> - Moleküle

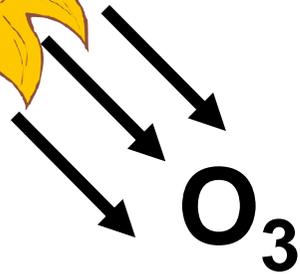
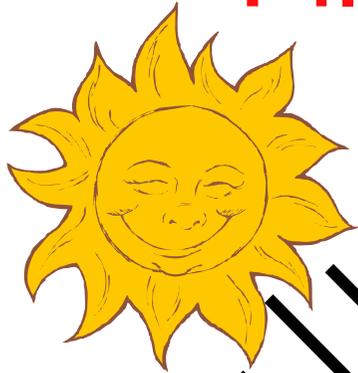


Ozon (O<sub>3</sub> - Moleküle)

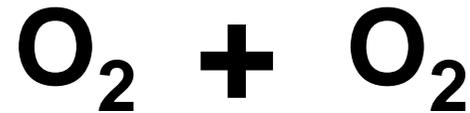
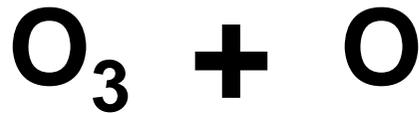
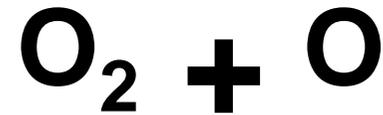
# Bindungsverhältnisse



# Filterwirkung des Ozons

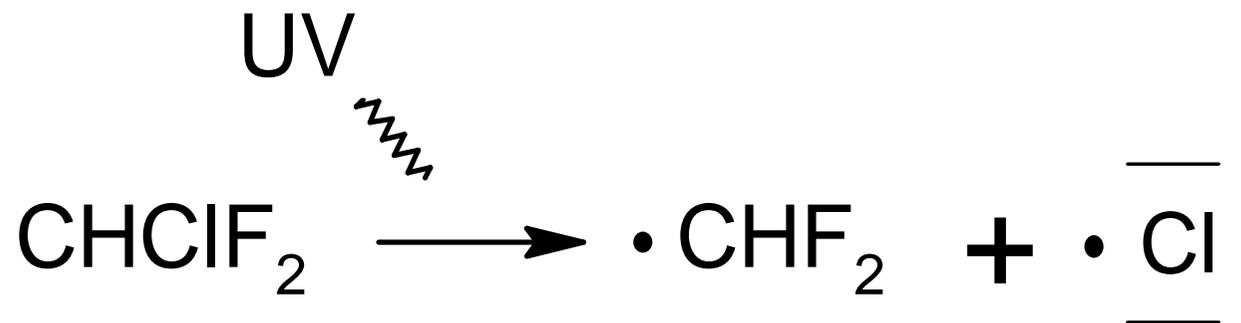
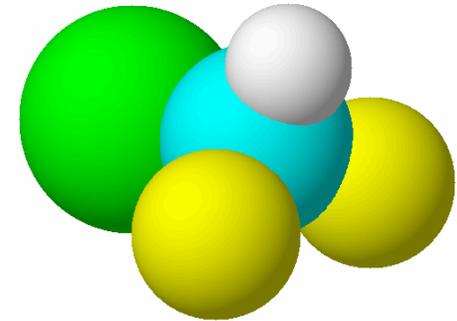


$h\nu$  (Licht)



# Wirkung der FCKW 1

- Halogenalkane steigen im Laufe von ca. 10 Jahren in die Stratosphäre auf ...



## Wirkung der FCKW 2

