

## 2. Composition of Earth's dry atmosphere (2006)\*

gas	fraction by number of moles	fraction by weight
Nitrogen (N <sub>2</sub> )	0.7808	0.7549
Oxygen (O <sub>2</sub> )	0.2095	0.2314
Argon (Ar)	0.0093	0.0128
Carbon Dioxide (CO <sub>2</sub> )	380 ppm	577 ppm
Neon (Ne)	18 ppm	12 ppm
Helium (He)	5.2 ppm	0.7 ppm
Methane (CH <sub>4</sub> )	1.78 ppm	0.95 ppm
Krypton (Kr)	1.1 ppm	3.2 ppm
Hydrogen (H <sub>2</sub> )	0.5 ppm	0.03 ppm
Nitrous Oxide (N <sub>2</sub> O)	0.32 ppm	0.48 ppm
Carbon Monoxide (CO)	0.1 ppm	0.1 ppm
Ozone (O <sub>3</sub> )	0.01 ppm	0.015 ppm
Nitrogen Dioxide (NO <sub>2</sub> )	0.2 ppb	0.3 ppb
Sulfur Dioxide (SO <sub>2</sub> )	0.2 ppb	0.4 ppb
Hydrogen Sulfide (H <sub>2</sub> S)	0.05 ppb	0.05 ppb
Nitric Oxide (NO)	0.05 ppb	0.05 ppb
Ammonia (NH <sub>3</sub> )	< 0.05 ppb	< 0.03 ppb

\*Concentrations less than 1 ppm(v) are uncertain to  $\pm 50\%$ ; all others are believed to be known to better than  $\pm 10\%$ . The mean fraction, by weight, of water vapor and cloud water in Earth's atmosphere is about 0.0025.