

## Figure 2. Uranium-238 Decay Series

**Uranium-238 (primordial)**

Terrestrial.

Present in sampled particulate matter.

uranium-238 measured  
by alpha spectroscopy

**Various decay products  
including uranium-234**

Terrestrial.

Present in sampled particulate matter.

uranium-234 measured  
by alpha spectroscopy

**Radon-222**

Released to the atmosphere as a gas  
3.8-day half-life

**Short-lived decay products**

Gas to particulate matter  
Not present by analysis time

## Lead-210

measured by  
gamma spectroscopy

Present in sampled particulate matter.  
22-year half-life  
Not measured by gross beta analysis

## Bismuth-210

measured by  
gross beta activity

Present in sampled particulate matter.  
Equilibrates with lead-210 in ~35 days  
5-day half-life

## Polonium-210

measured by  
gross alpha activity

Present in sampled particulate matter.  
Equilibrates in about 2.6 years  
138-day half-life

## Lead-206

Stable