

**IT'S THE
NOT US**



L.D. den Boer, P. Geoph.

Outline

- Ideology versus science
- Why focus on CO₂?
- What controls climate?
- Planet surface temperatures
- Venus versus Earth
- Atmospheric CO₂
 - heat absorbing capacity
 - human versus natural emission
 - relation to temperature
 - role of oceans
 - past concentration
 - atmospheric residence time
 - effect on plants
- Conclusion

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2/5 {

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3/5



“Urgent Action Required”

“Climate Deniers”

“Climate Emergency”

“The Science is Settled”

“Unprecedented Warming”

“Save the Planet”

“97% Consensus”

“The Debate is Over”

“Imprison Climate Deniers”

“You’re either for us or against us”

Alarm – scare

“Urgent Action Required”

Demonize

“Climate Deniers”

Alarm – scare

“Climate Emergency”

Stifle dissent

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ideology

“Save the Planet!”

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“You’re either for us or against us”

ideology is about unquestioning belief
conformity = consensus

science is about questioning truth
skepticism = debate

Lemming Principle

“There is no assertion, no matter how absurd, that the common man will not embrace as true if he can but be convinced that the majority of his fellows also believe it.”

René Descartes



The Far Side – Gary Larson

*“Why should I make the data available to you,
when your aim is to find something wrong with it?”*

Phil Jones, CRU

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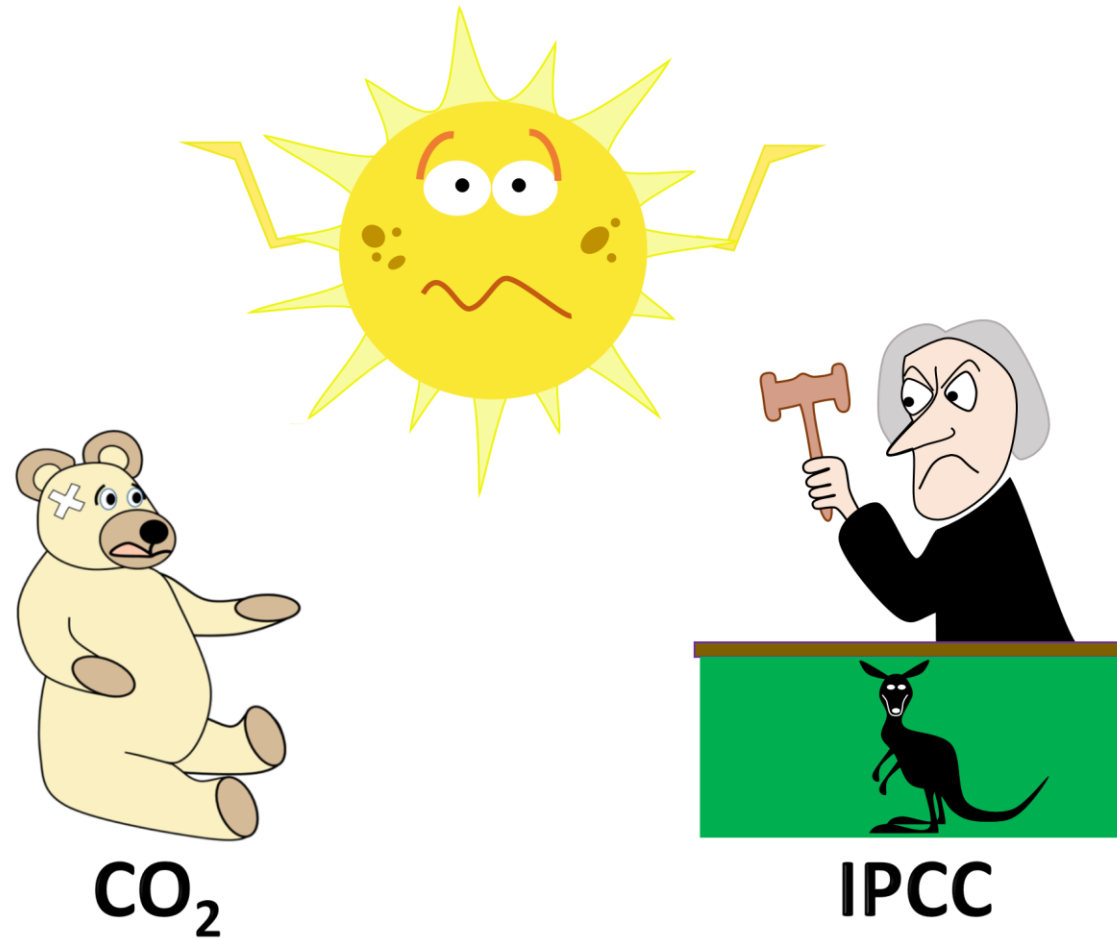
1. because that's how science works.
2. Why should we believe your data,
if you won't let us check it?

If it's not falsifiable, it's not science

“Why should I make the data available to you, when your aim is to find something wrong with it?”

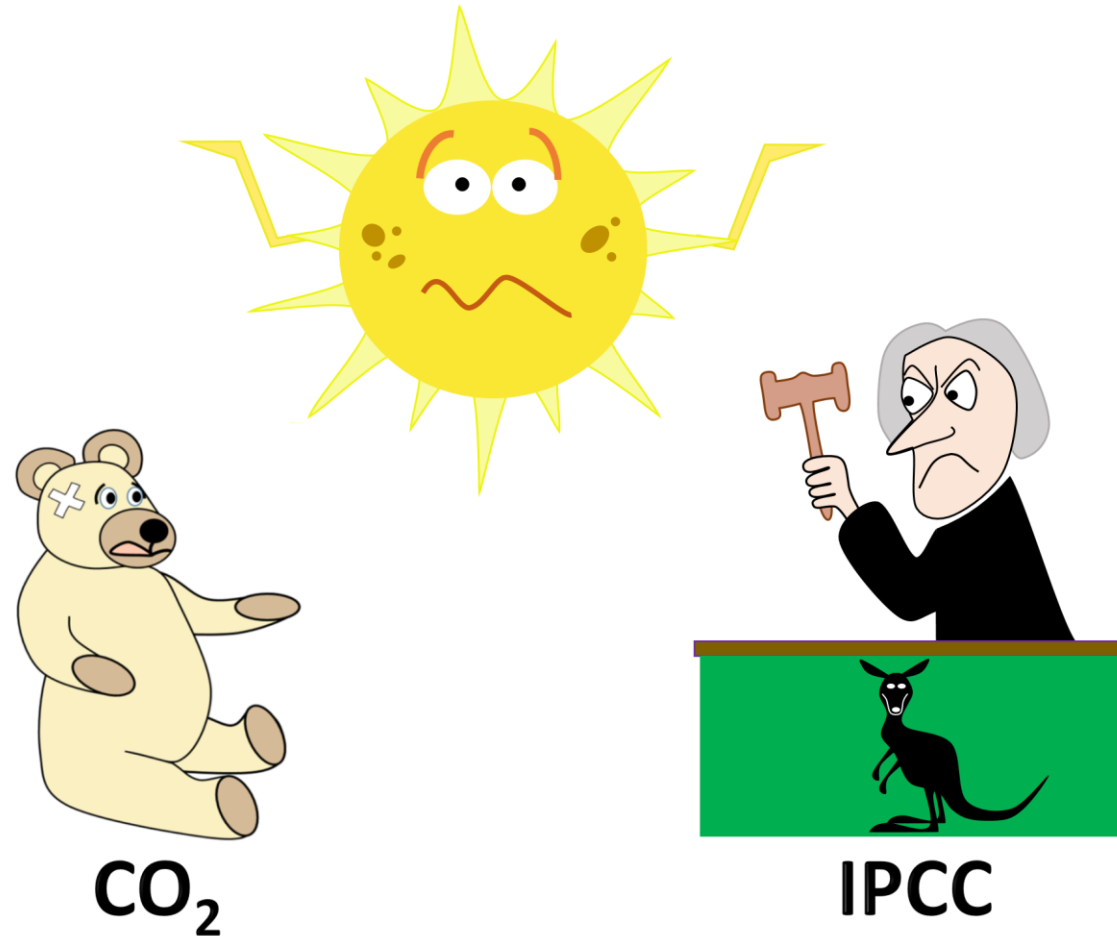
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I've been framed !

Why Target CO₂?



I've been framed !

Birth of Environmentalism

Pollution

Birth of Environmentalism

Pollution

Love Canal (1978)

Three Mile Island (1979)

Bhopal (1984)

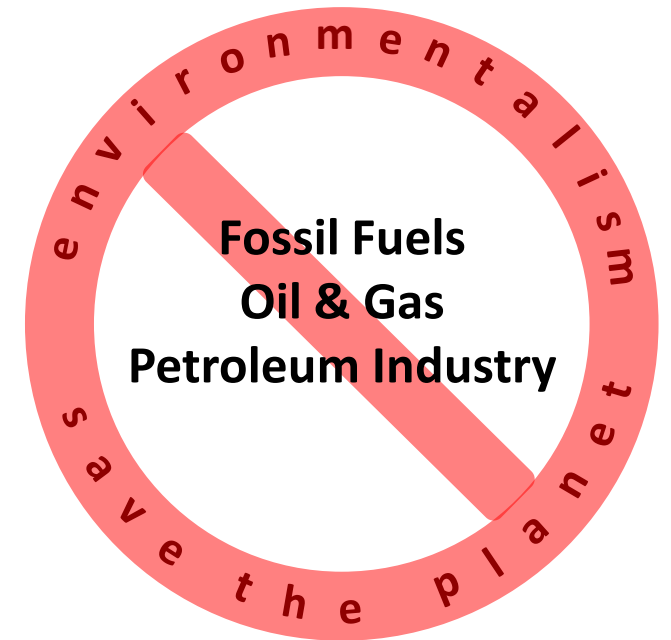
Exxon Valdez (1989)

Birth of Environmentalism

Environmentalism

Anti-pollution
Anti-globalization
Anti-capitalism
Anti-business

~~Love Canal
Three Mile Island
Bhopal
Exxon Valdez~~



Birth of Eco-Socialism

Environmentalism

Anti-pollution

Anti-globalization

Anti-capitalism

Anti-business



Collapse of communism

Birth of Eco-Socialism

*“The problem with Socialism is that eventually,
You run out of other peoples’ money.”*

Margaret Thatcher

Environmentalism

Anti-pollution
Anti-globalization
Anti-capitalism
Anti-business



Collapse of communism

Birth of Eco-Socialism



Environmentalism

Anti-pollution
Anti-globalization
Anti-capitalism
Anti-business



Collapse of communism



Socialism

Anti-pollution
Anti-globalization
Anti-capitalism
Anti-business

Birth of Eco-Socialism



Environmentalism

Anti-pollution
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Anti-capitalism
Anti-business



Collapse of communism



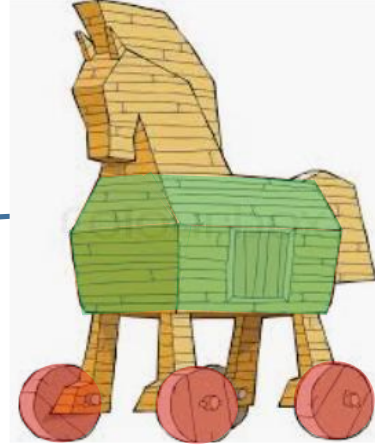
Eco-Socialism

Anti-pollution
Anti-globalization
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Anti-business

Birth of Eco-Socialism



Environmentalism



Eco-Socialism

Anti-pollution
Anti-globalization
Anti-capitalism
Anti-business



Collapse of communism

Anti-capitalism
Anti-business
Anti-pollution
Anti-globalization

“Human society cannot basically stop destruction of the environment under capitalism. Socialism is the only structure that makes it possible ...”

This is true in the struggle to save the environment ... What is new is that knowledge of [a] point-of-no-return gives this struggle an unusual urgency ... We must be the leaders of these movements ...”

Gus Hall, 1972

(Chairman, US Communist Party, 1959-2000)

“This urgency, along with other Green issues and themes it interrelates, makes confronting the greenhouse [effect] a powerful organizing tool ...

Survival is highly motivating, and may help us to build a mass movement that will lead to large-scale political and societal change in a very short time ...”

First of all, we [must] inform the public that the crisis is more immediate and severe than [they] are being told, [that] its implications are too great to wait for [a] universal scientific confirmation that only [an] eco-catastrophe would establish ...”

US Green Party, 1989

“Isn’t the only hope for the planet that the industrialized nations collapse? Isn’t it our responsibility to bring that about? ...”

Maurice Strong, 2012

(UN IPCC Founder)

“This is the first time in the history of mankind that we are setting ourselves the task of intentionally, within a defined period of time, [trying] to change the economic development model [free-market capitalism] that has been reigning for at least 150 years, since the Industrial Revolution ...”

Christiana Figueres, 2018

(Executive Secretary, UN Framework Convention on Climate Change)

*“One must free oneself from the illusion that international climate policy is environmental policy. [What we’re doing] has almost nothing to do with the climate. We must state clearly that we use climate policy **de facto** to redistribute the world’s wealth...”*

“Climate policy has almost nothing to do anymore with protecting the environment. The next world climate summit in Cancun is actually an economy summit during which [re]distribution of the world’s resources will be negotiated ...”

Dr. Ottmar Edenhofer, 2018

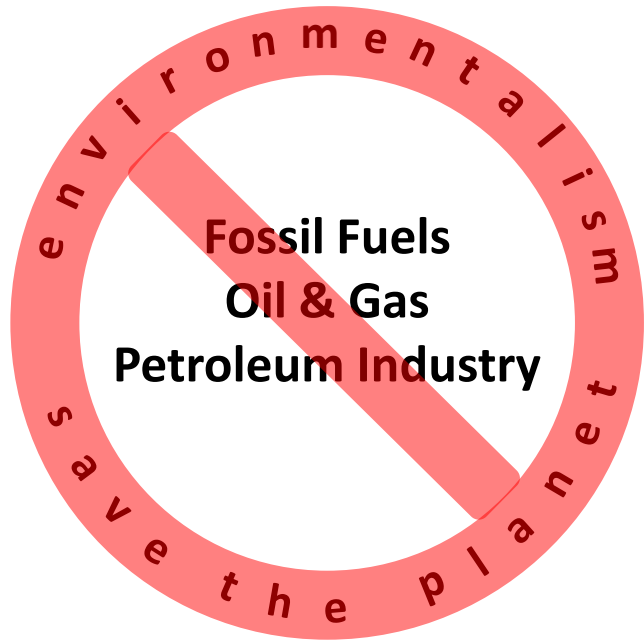
(Co-chair, UN IPCC Working Group II)



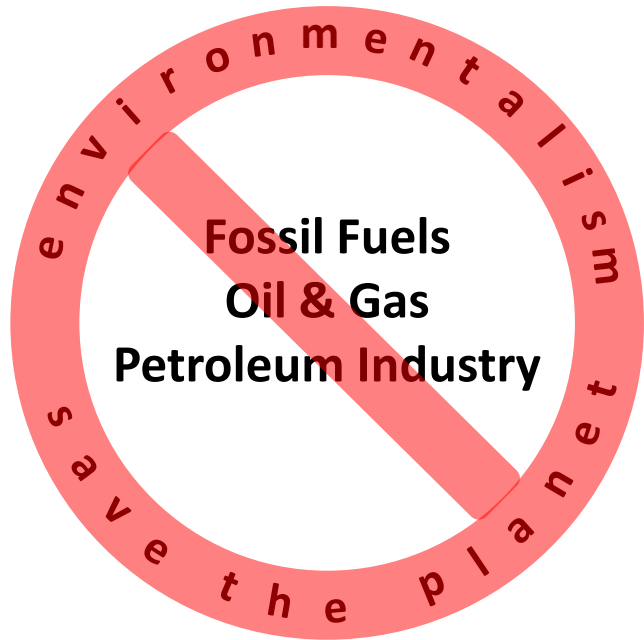
**“The Goal of Socialism
is Communism”**

**Vladimir Ilyich Ulyanov
(Lenin)**

Why Target CO₂?

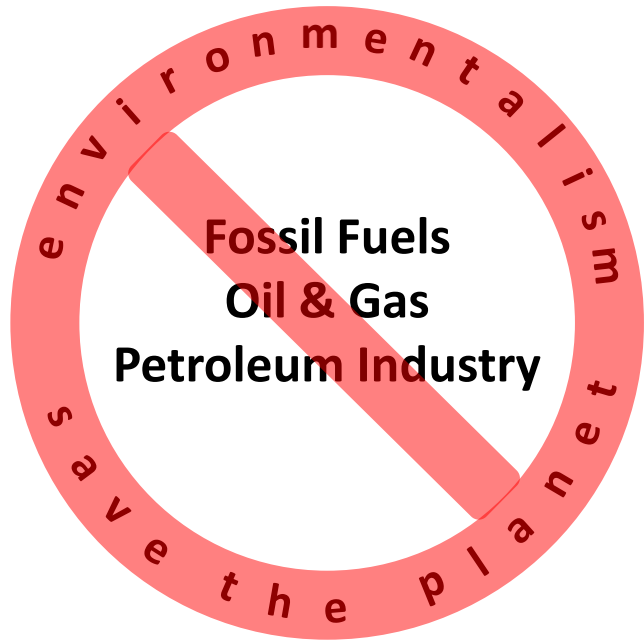


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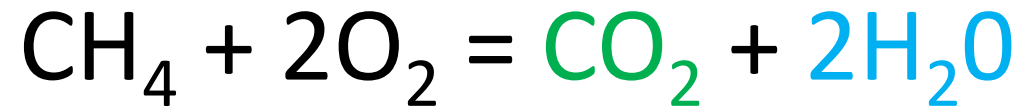


Pollution

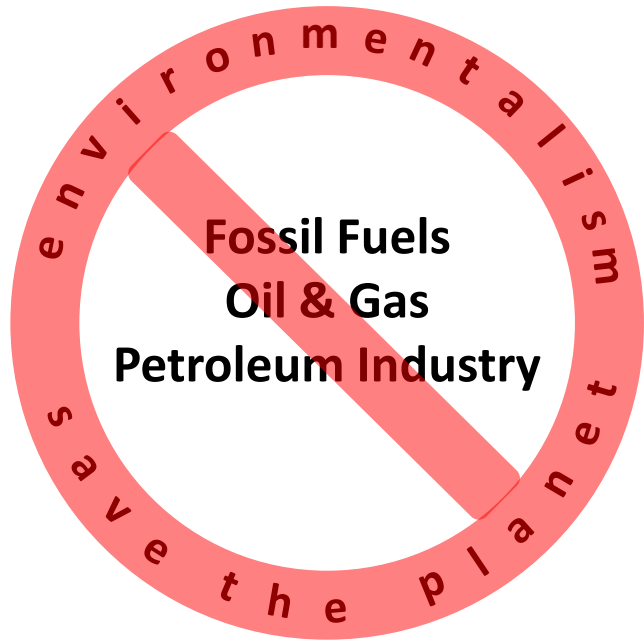
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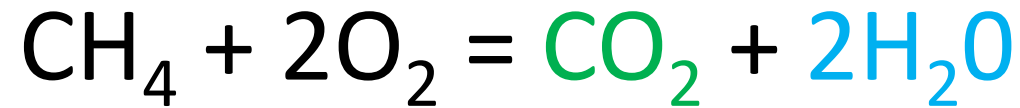
Hydrocarbon Combustion:



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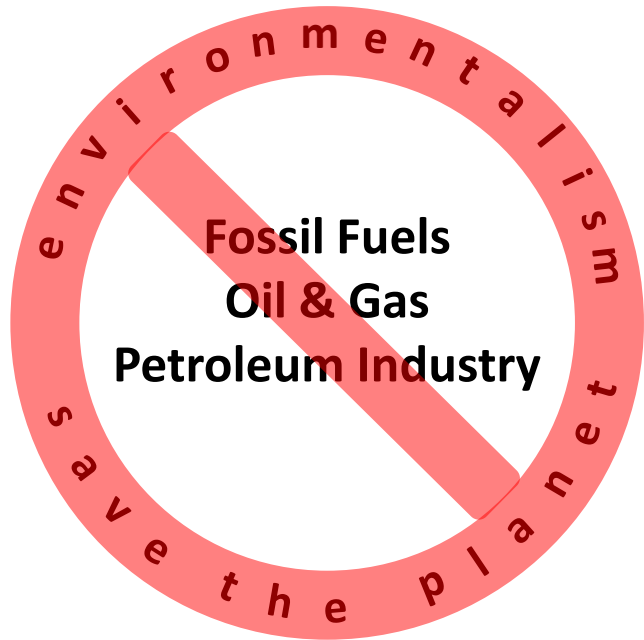


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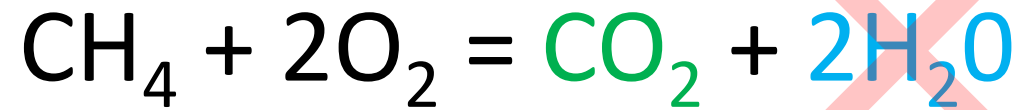


everyone knows water is essential for life,
so it can't be called a pollutant.

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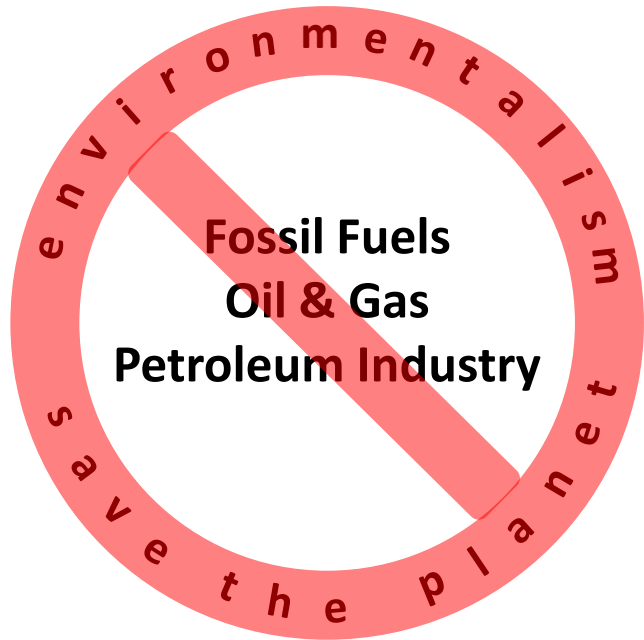


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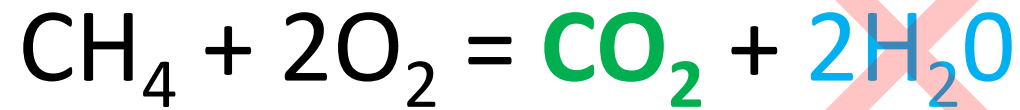


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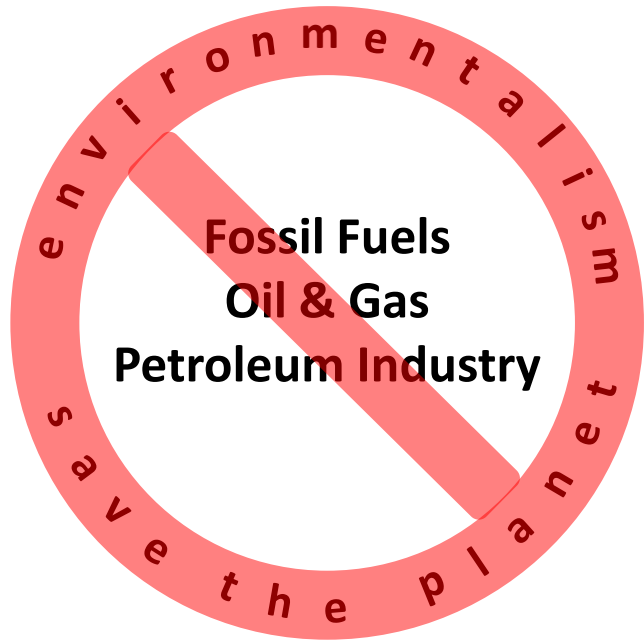


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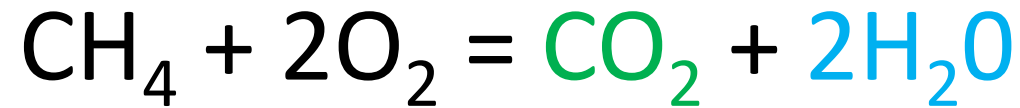


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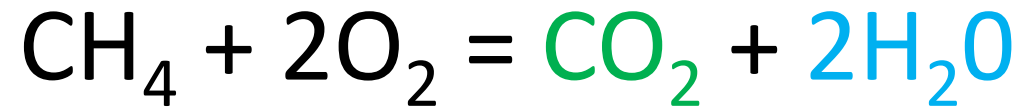


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CO₂ is also essential for life,
so it can't be called a pollutant either.

Why Target CO₂?

Hydrocarbon Combustion:



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Science

What Controls Earth's Climate?

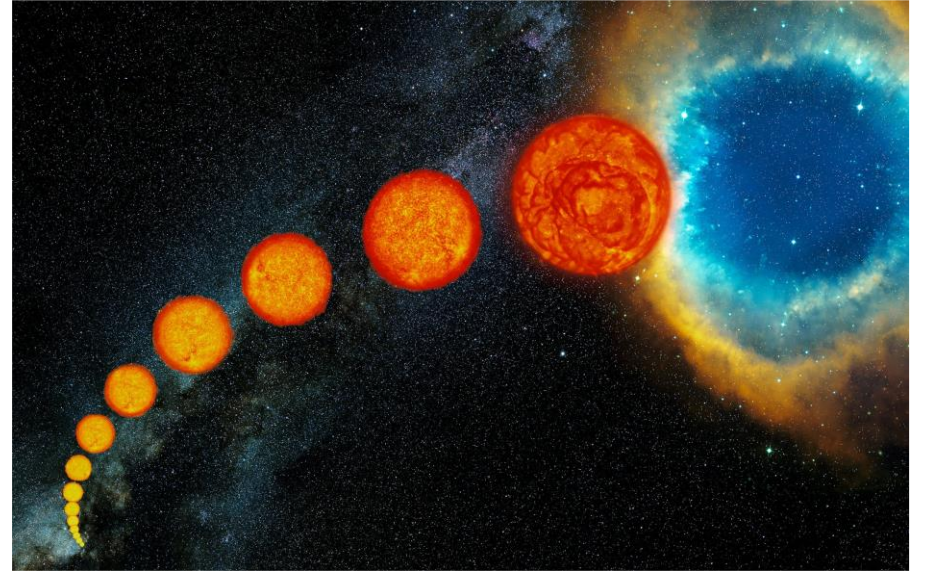
- **Sun**
 - Age
 - Luminosity
 - Magnetic field

- **Galactic Cosmic Rays**
 - Black holes
 - Supernovae
 - Star Formation

- **Earth**
 - Milankovitch cycles
 - Magnetic field
 - Atmosphere

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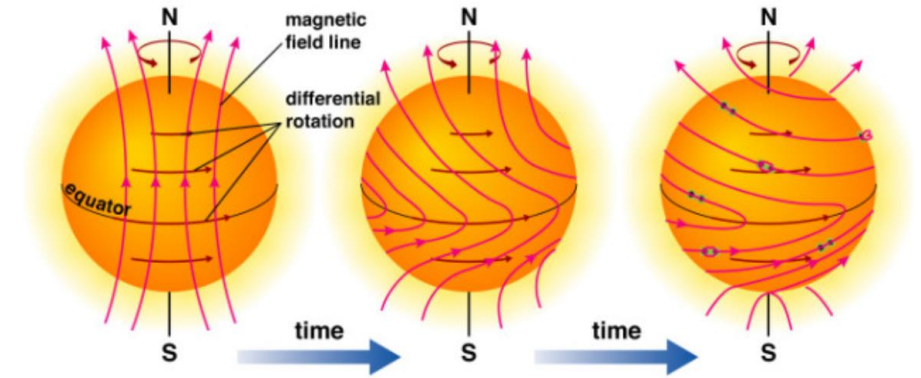
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➤ Earth

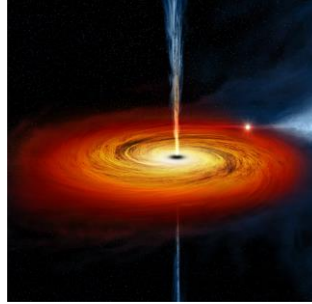
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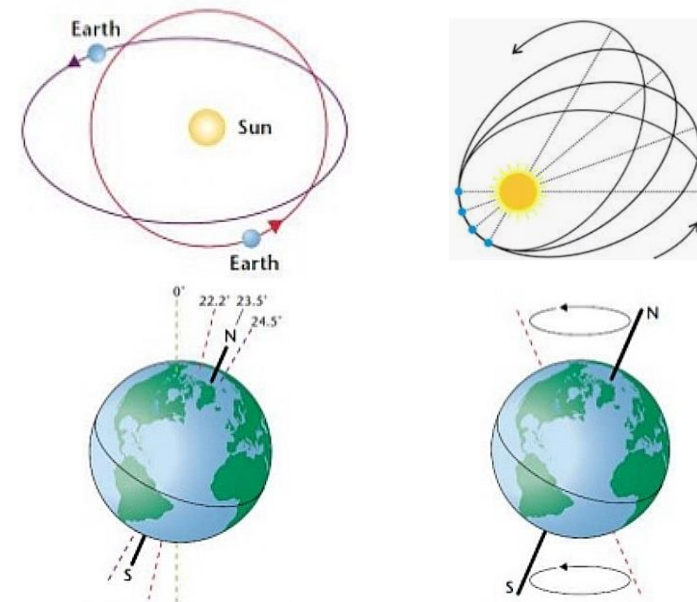
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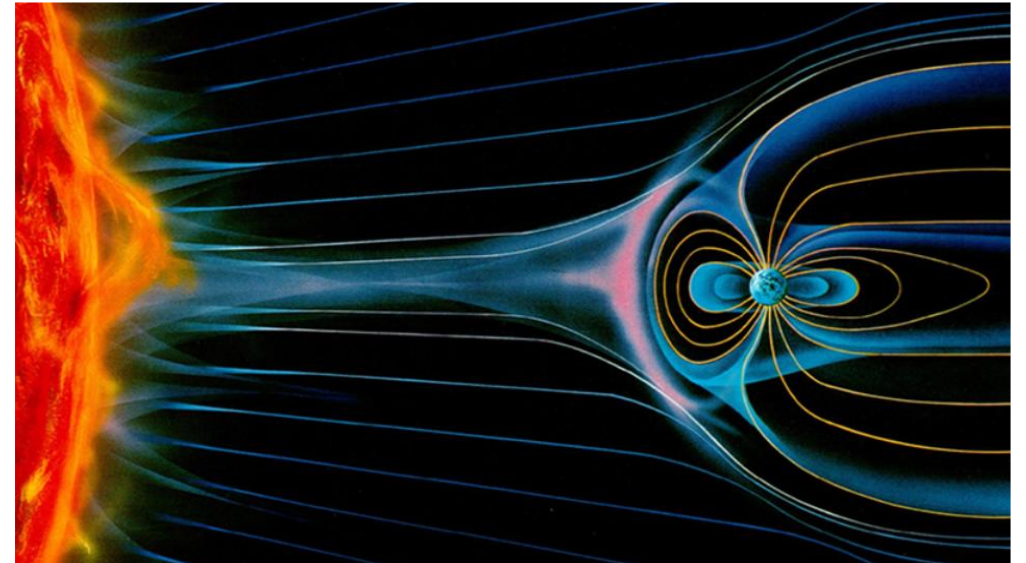
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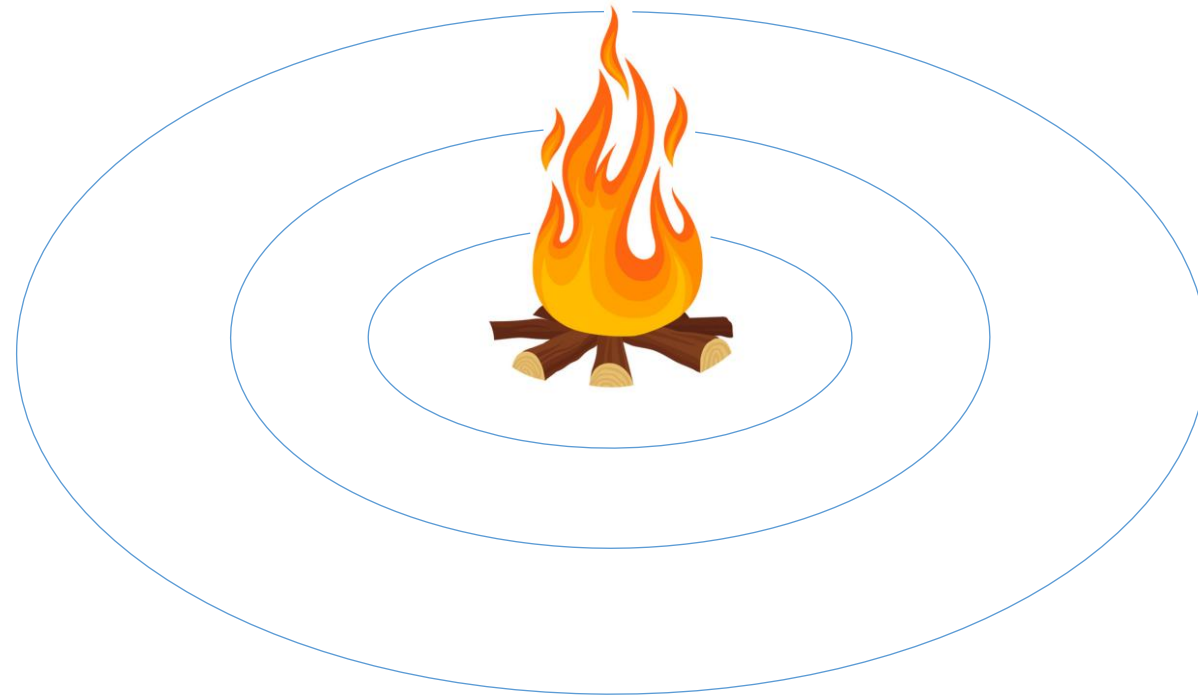
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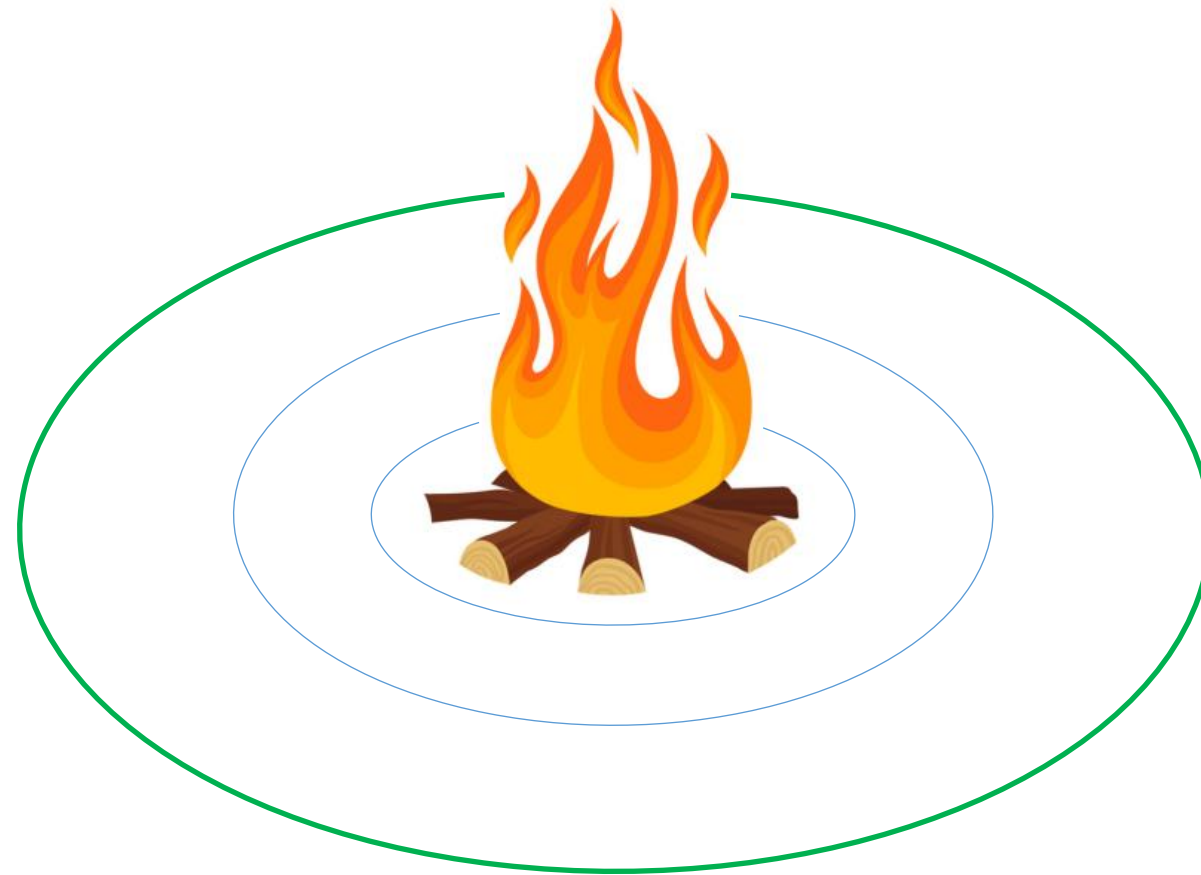
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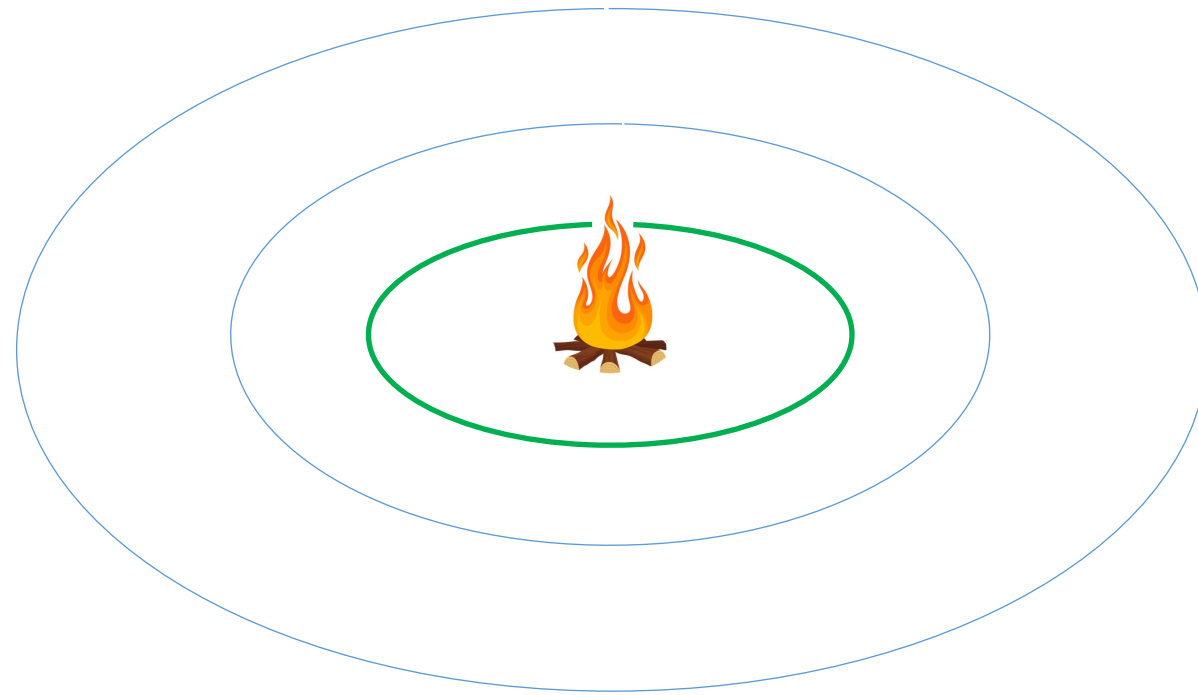
The Ideal Distance from a Campfire?



The Ideal Distance from a Campfire
depends on how big the fire is ...



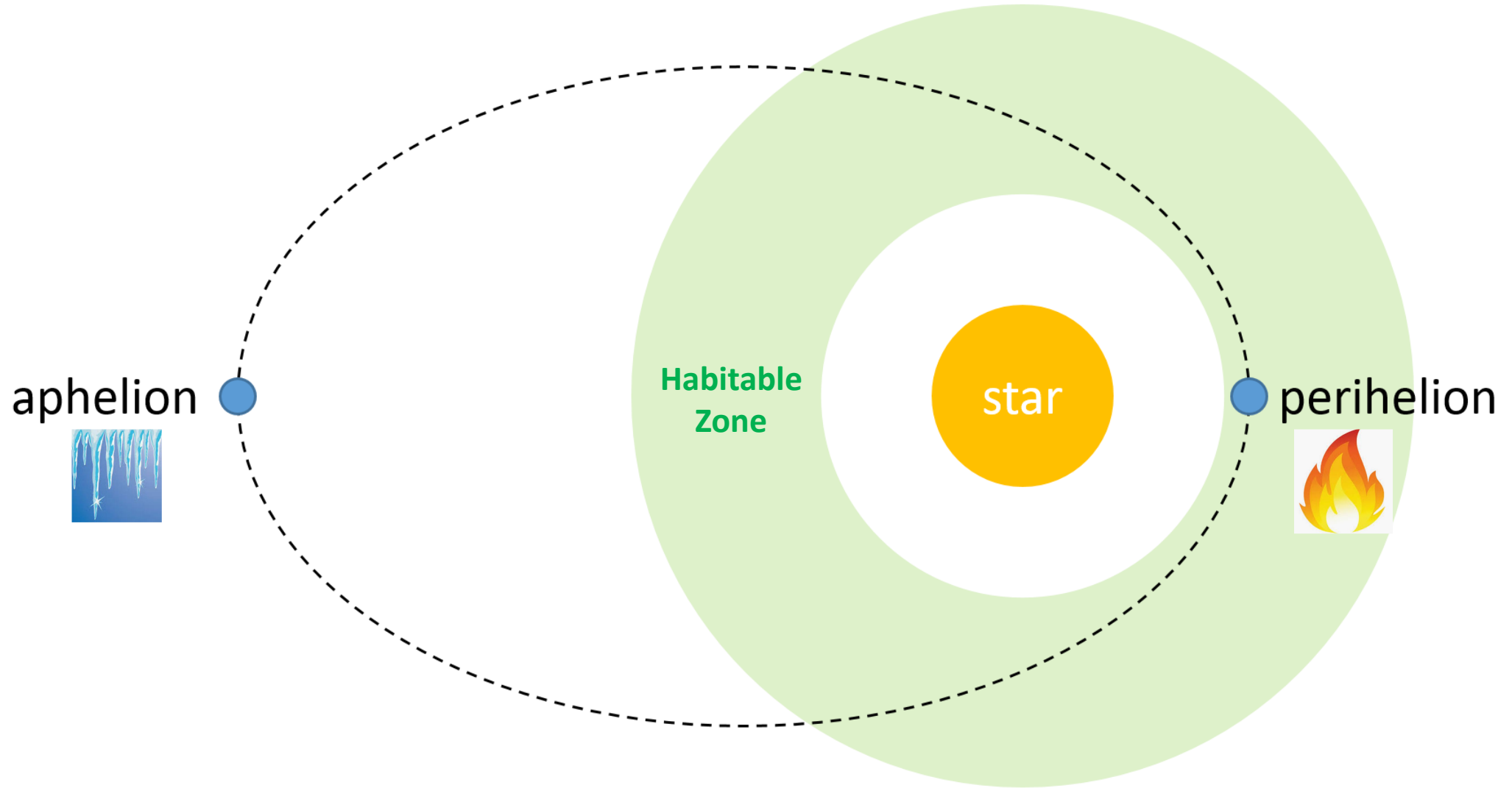
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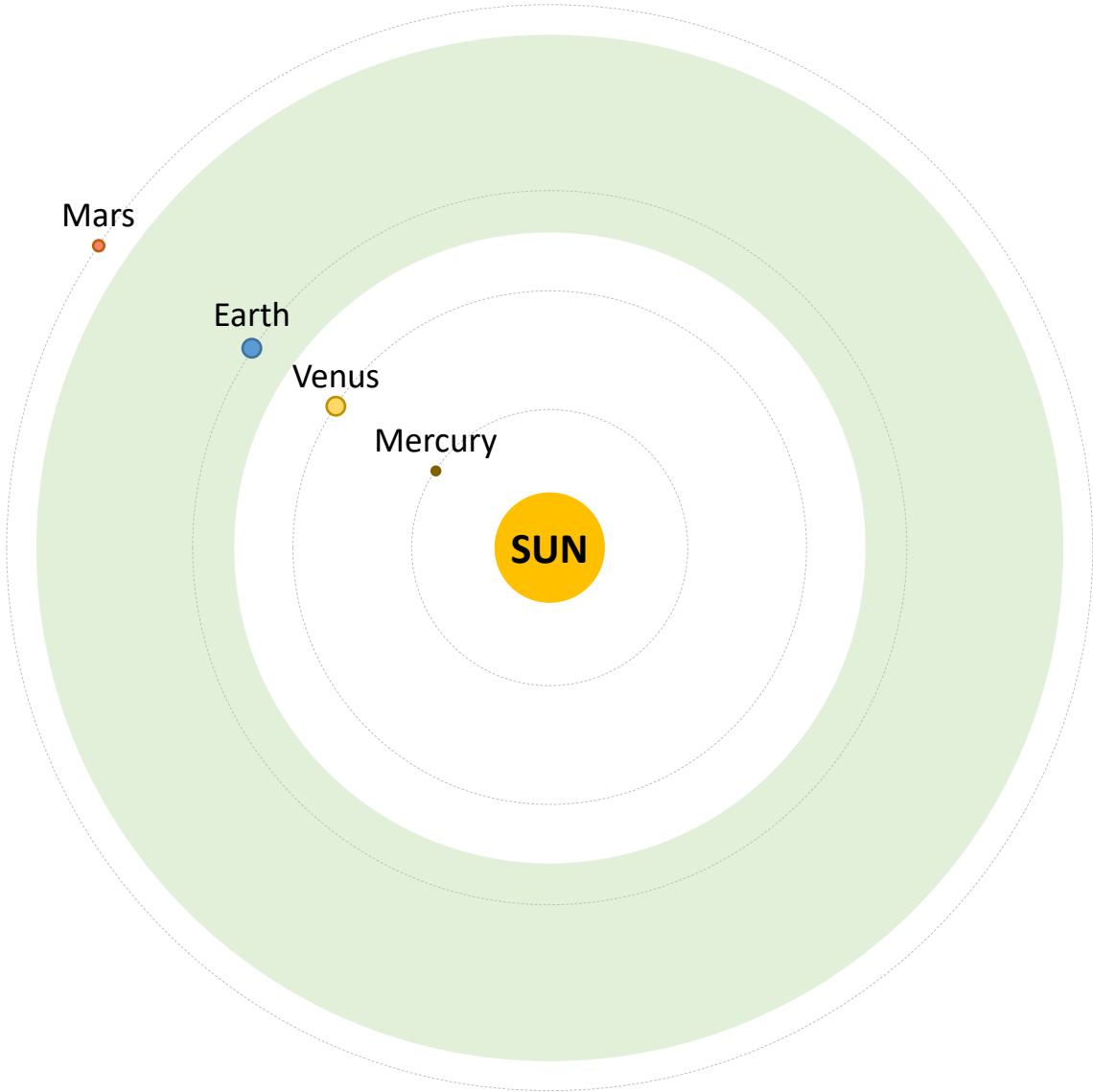
too close, you fry – too far, you freeze



It's the same with Stars



Habitable Zone in Our Solar System



Planet Surface Temperatures

Stefan-Boltzmann Black-Body Radiation Law:

$$\frac{L}{4\pi r^2} = \sigma T^4$$

Black-Body Temperature:

$$T_o = T_s \sqrt{\frac{R_s}{2D}}$$

Planet Surface Temperatures

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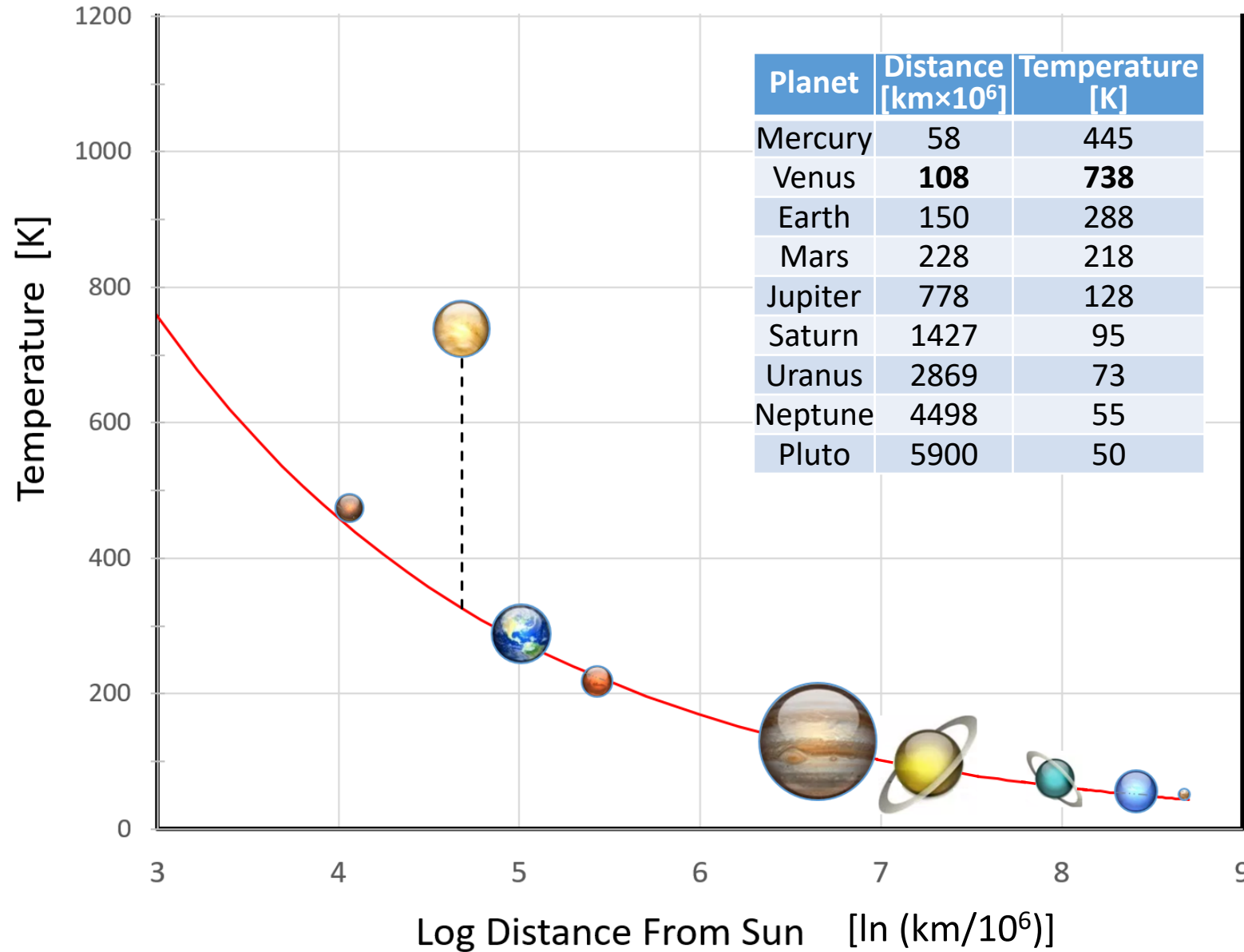
$$\frac{L}{4\pi r^2} = \sigma T^4$$

Black-Body Temperature:

$$T_o = T_s \sqrt{\frac{R_s}{2D}}$$

T_o = black-body temperature [K]
 D = distance from star [km]
 R_s = star radius [km]
 T_s = star surface temperature [K]

Planet Surface Temperatures



Tale of Two Planets



		Earth	Venus
Mean Equatorial Radius	km	6,378	6,052
Mean Distance From Sun	km x 10 ⁶	150	108
Mean Solar Irradiance (I)	W/m ²	1,361	2,601
Atmosphere Albedo (α)		0.31	0.77
Absorbed Solar Radiation $I \cdot (1 - \alpha)$	W/m ²	944	601
Atmosphere Height	km	100	250
Main Atmospheric Components		N, O ₂	CO ₂ , SO ₂
Mean Surface Temperature	K	288	738

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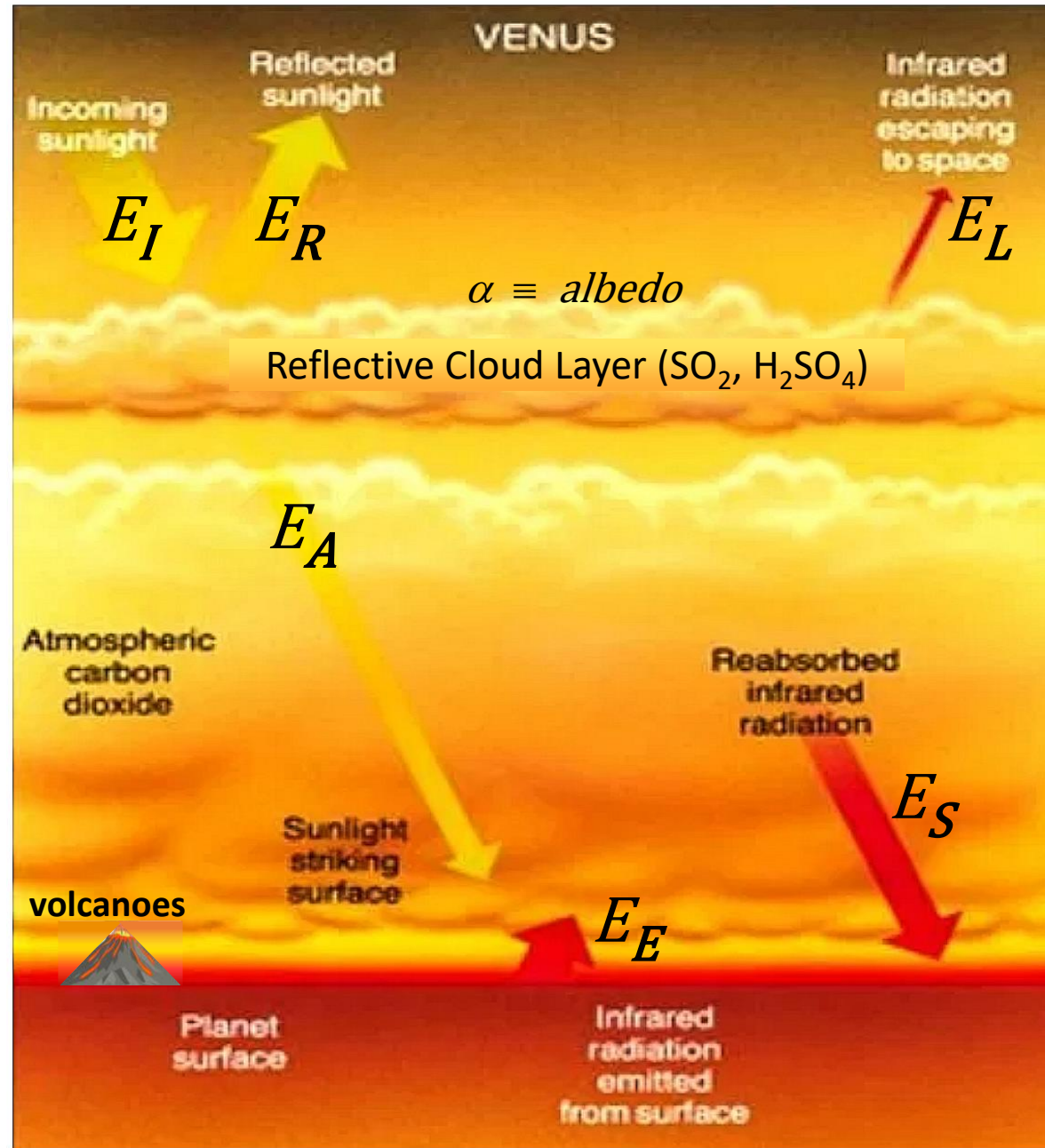


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Venus: 'Runaway Greenhouse'

- occurs when an atmosphere becomes so opaque to outgoing infrared radiation that incoming solar energy exceeds energy emitted back into space
- produces a permanently elevated surface temperature that prevents accumulation of liquid water.
- 'runaway' is misleading as it implies the surface temperature keeps increasing.
- surface temperature is constant (atmosphere is in thermal equilibrium).
- Most incoming solar radiation is reflected or absorbed in upper atmosphere and reemitted into space, without ever reaching planet surface.

Thermal Equilibrium in Venus Atmosphere



Legend

- I = Incident
- R = Reflected
- A = Absorbed
- L = Lost
- E = Emitted
- S = Stored

$$E_R = \alpha E_I$$
$$E_A = E_I - E_R = E_I(1 - \alpha)$$

Why is Venus so Hot?

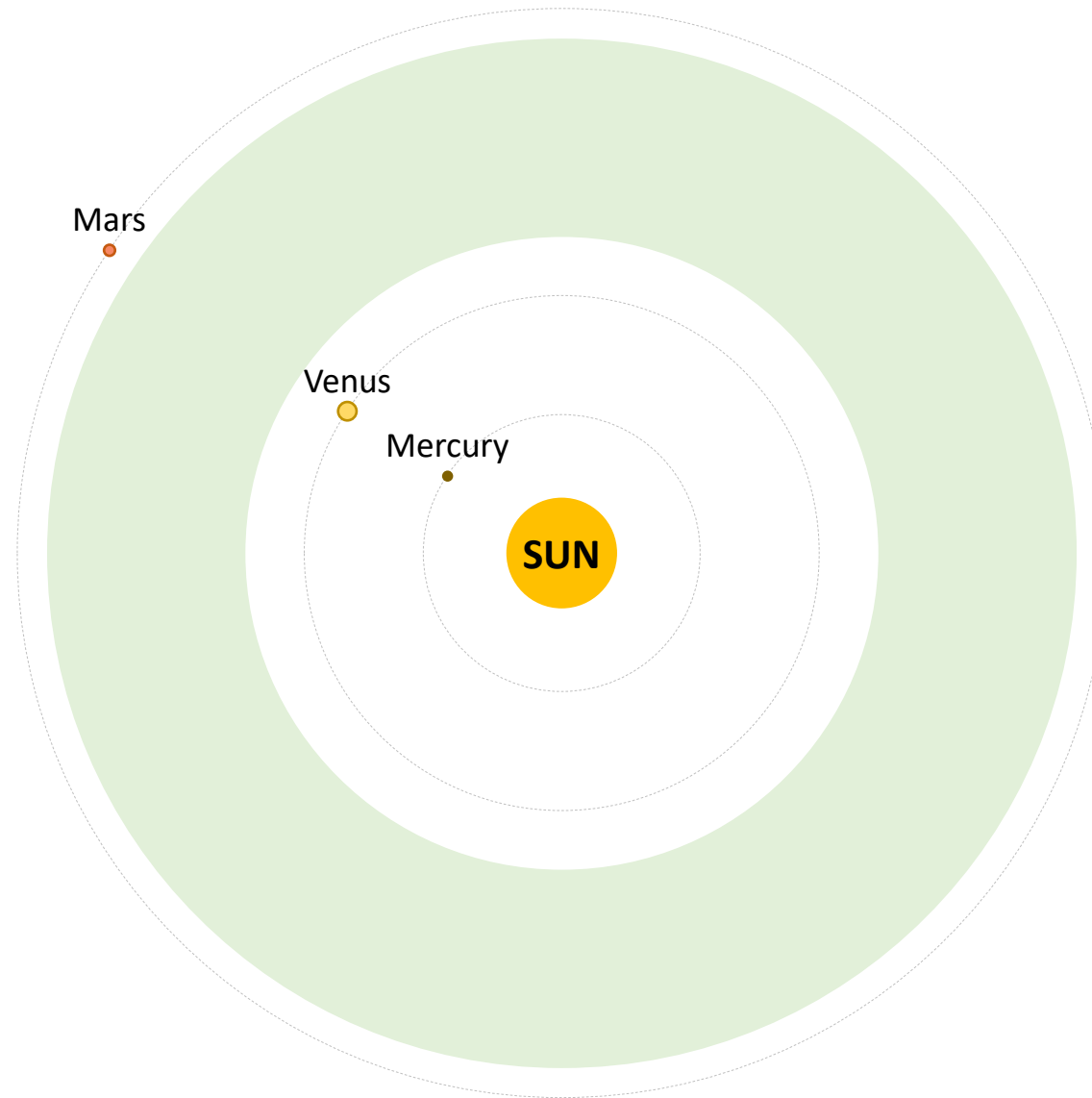
- Huge number of volcanoes, including active ones, keep the surface hot.
- Venus is much closer to the Sun than Earth, creating runaway greenhouse conditions.
- Thickness and opacity of Venus' atmosphere impedes the escape of heat.
- Slow rate of heat escape prevents any net heat-loss (cooling), because incoming solar energy constantly replenishes the loss.
- Heat is **not** produced by CO₂ (so-called "Radiative GreenHouse Effect" = RGHE).
- High surface temperature of Venus is produced mainly by heat emitted and/or reabsorbed by the surface itself.

Could this Ever Happen on Earth?

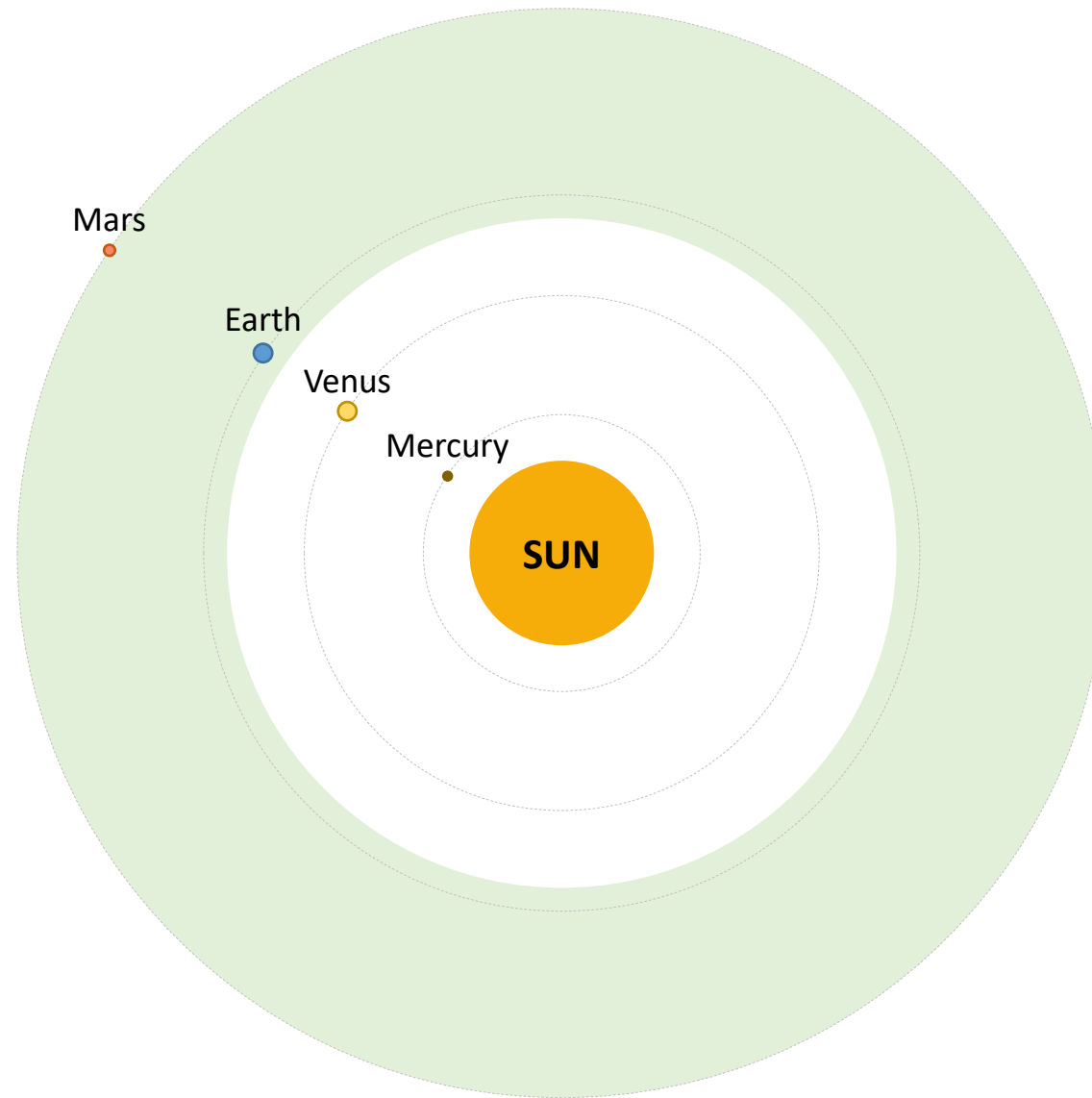
Could this Ever Happen on Earth?

Yes: 3 to 5 billion years from now,
when the Sun enters its final “red Giant” stage ...

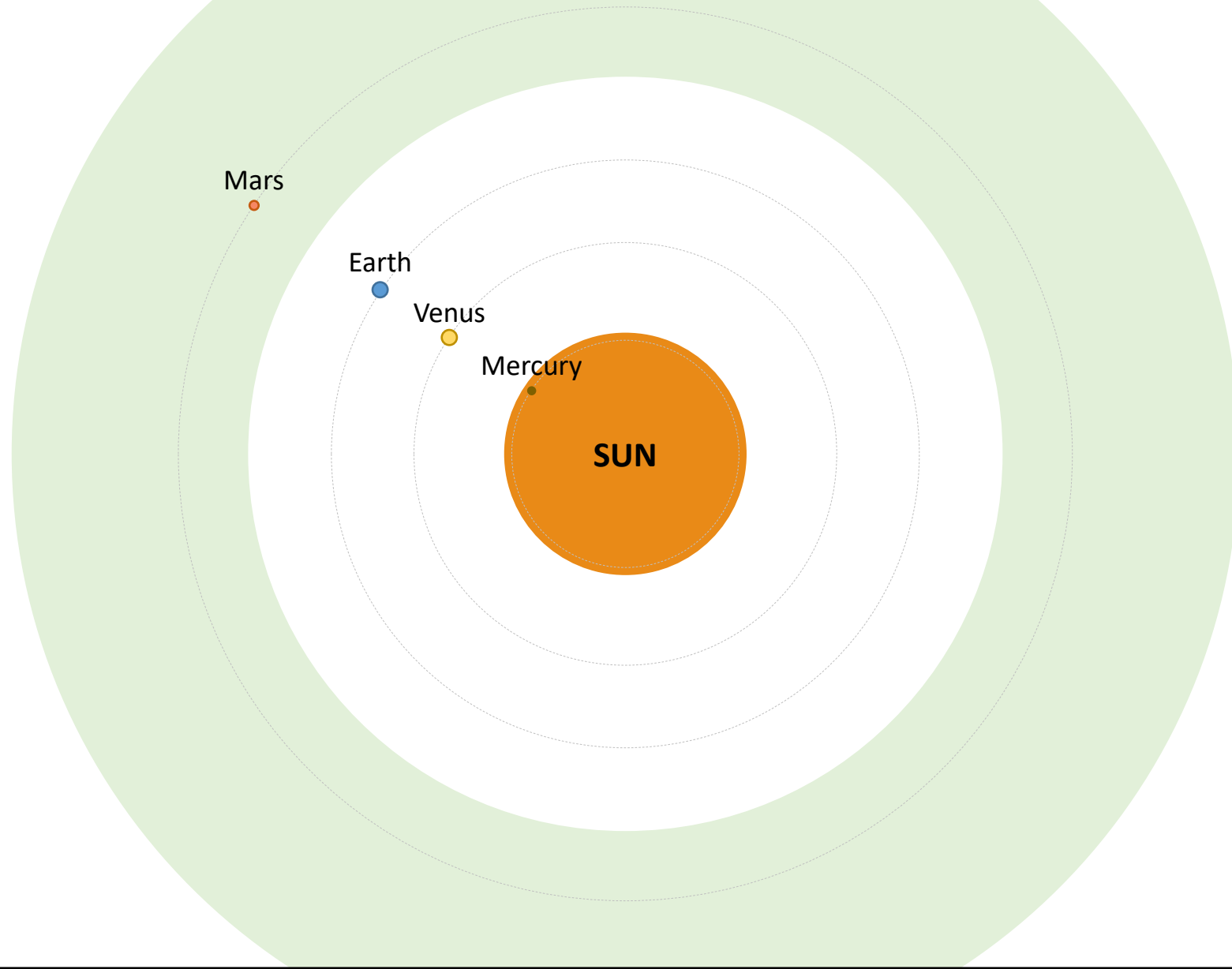
As the Sun nears the end of its life ...



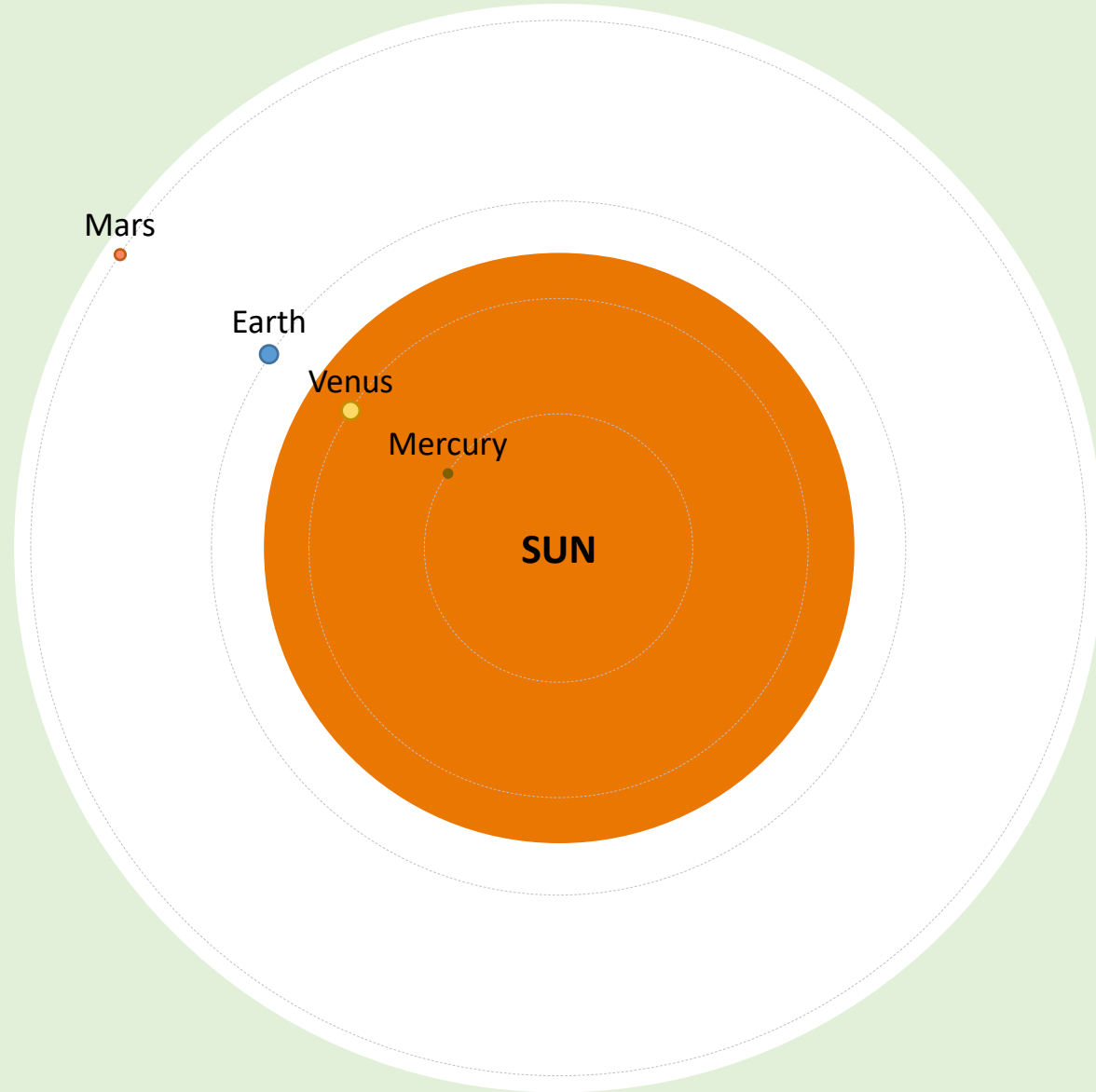
It will gradually expand ...



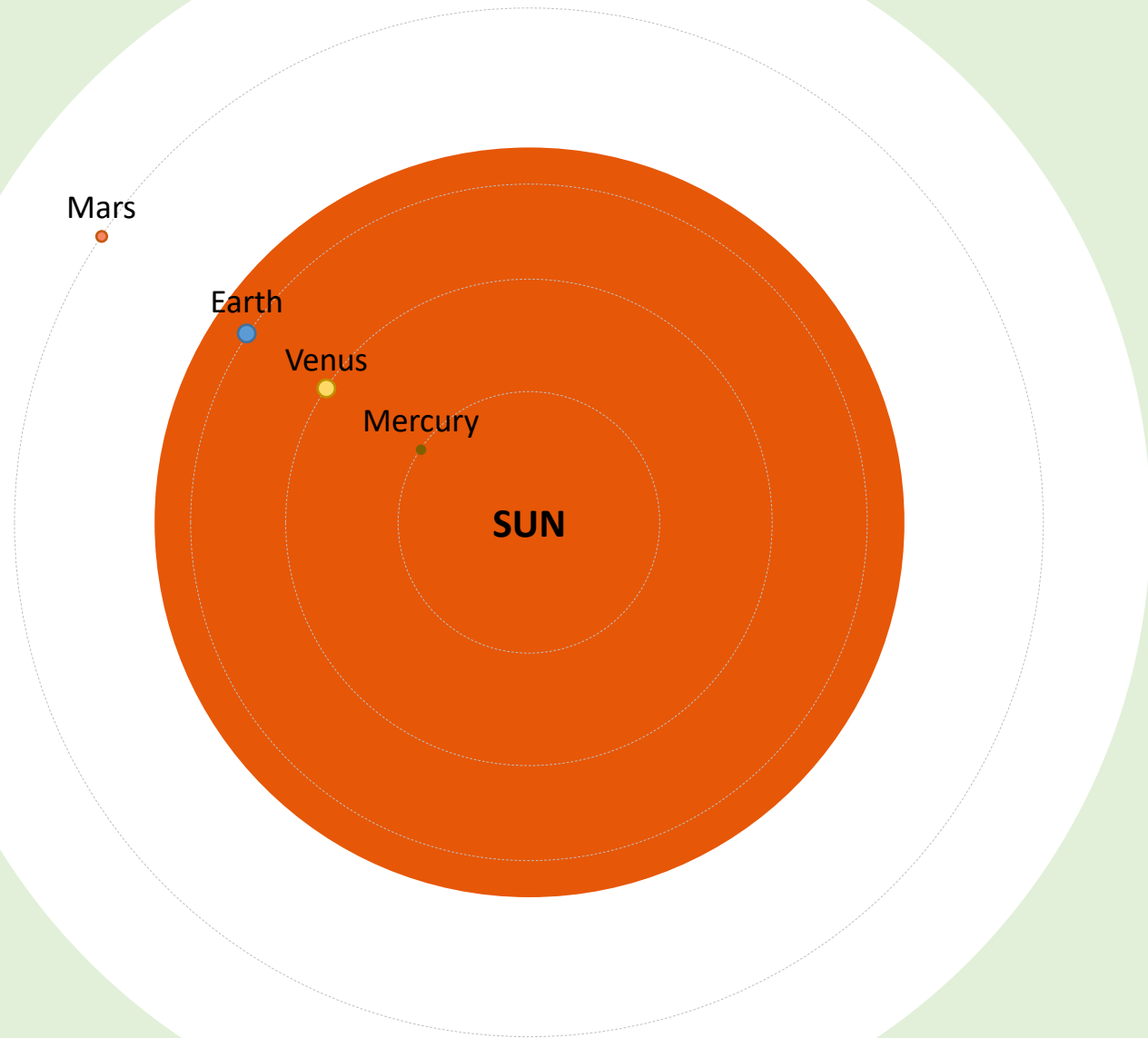
engulfing first Mercury ...



then Venus ...



and finally Earth ...

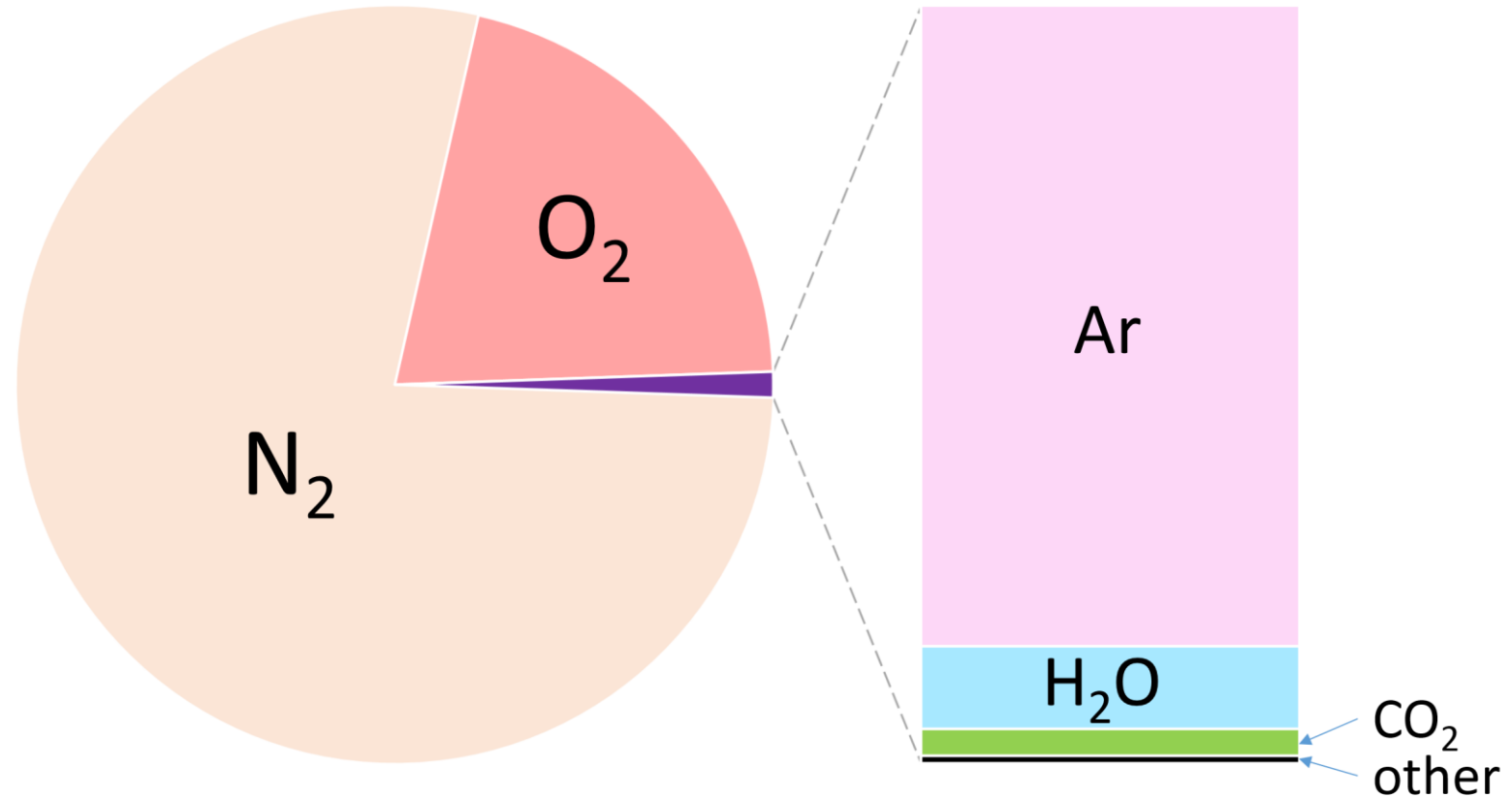


THAT's "global warming"

Earth's Atmosphere

Composition of Earth's Atmosphere

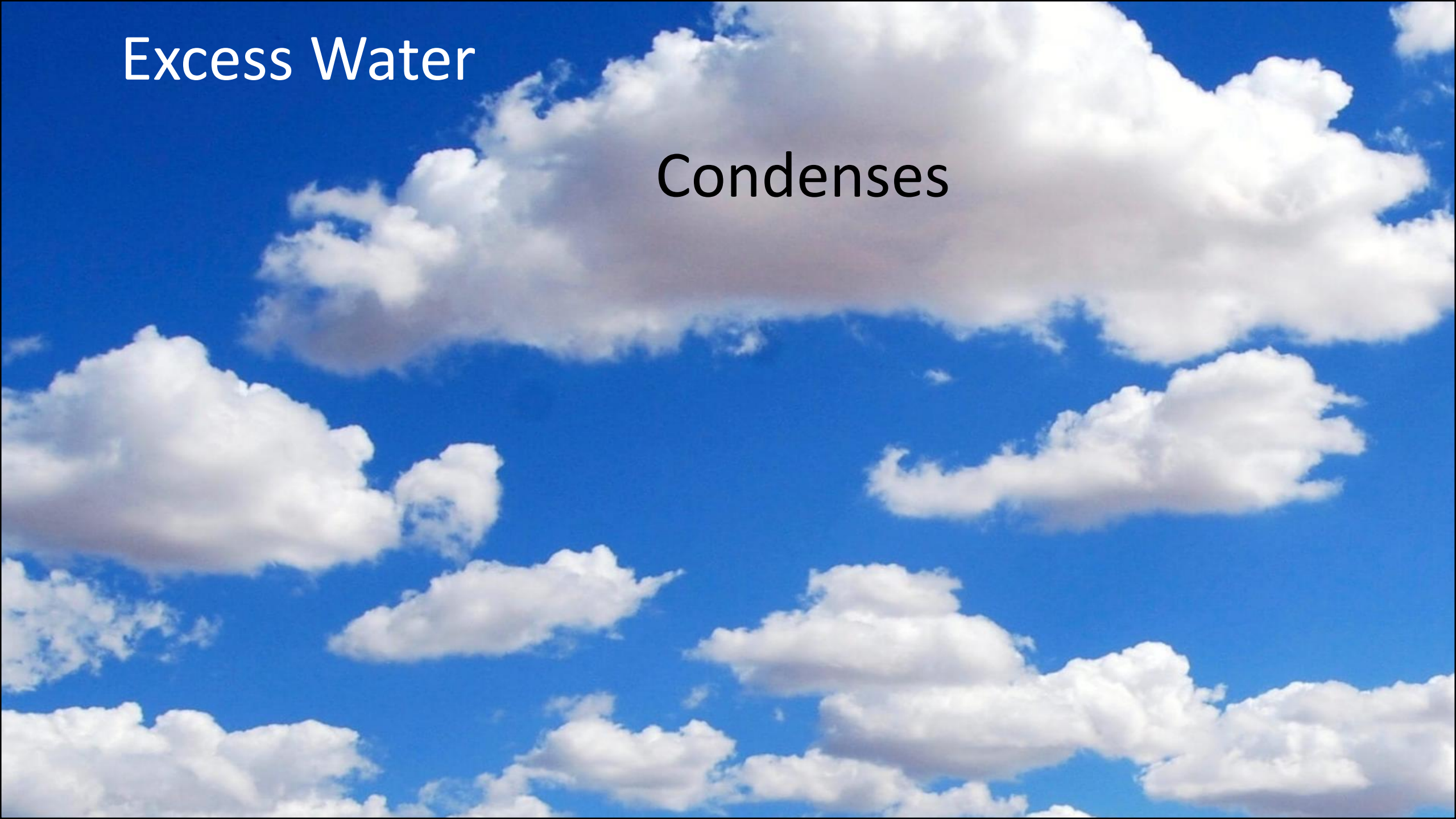
N ₂	Nitrogen	78.0%
O ₂	Oxygen	20.9%
H ₂ O	Water	0.12 to 3.0%
Ar	Argon	0.93%
CO ₂	Carbon Dioxide	0.039%
O ₃	Ozone	0.001%
CH ₄	Methane	0.00018%
	All Other	0.00982%



% water vapour the atmosphere can contain is limited by temperature

Excess Water

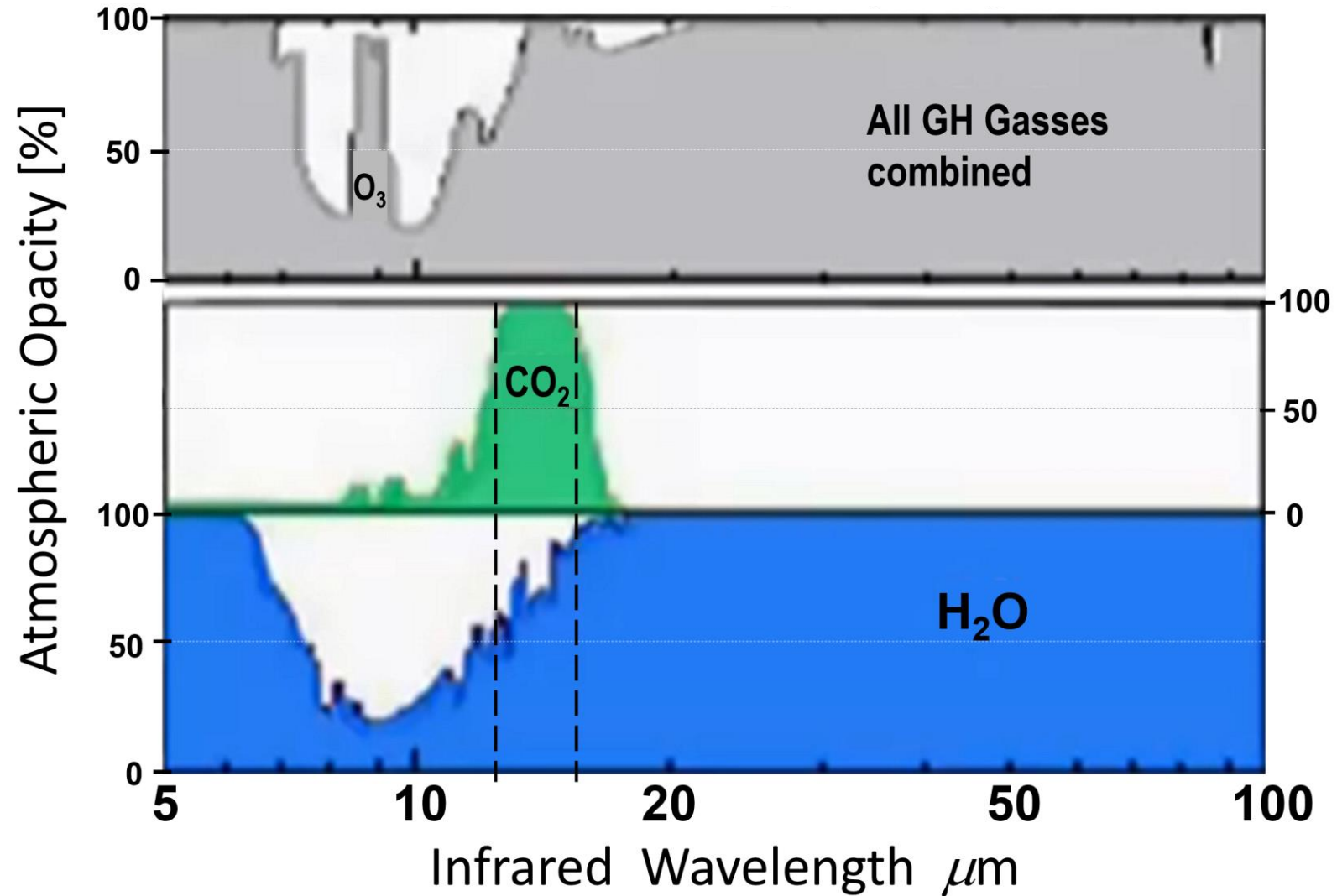
Condenses



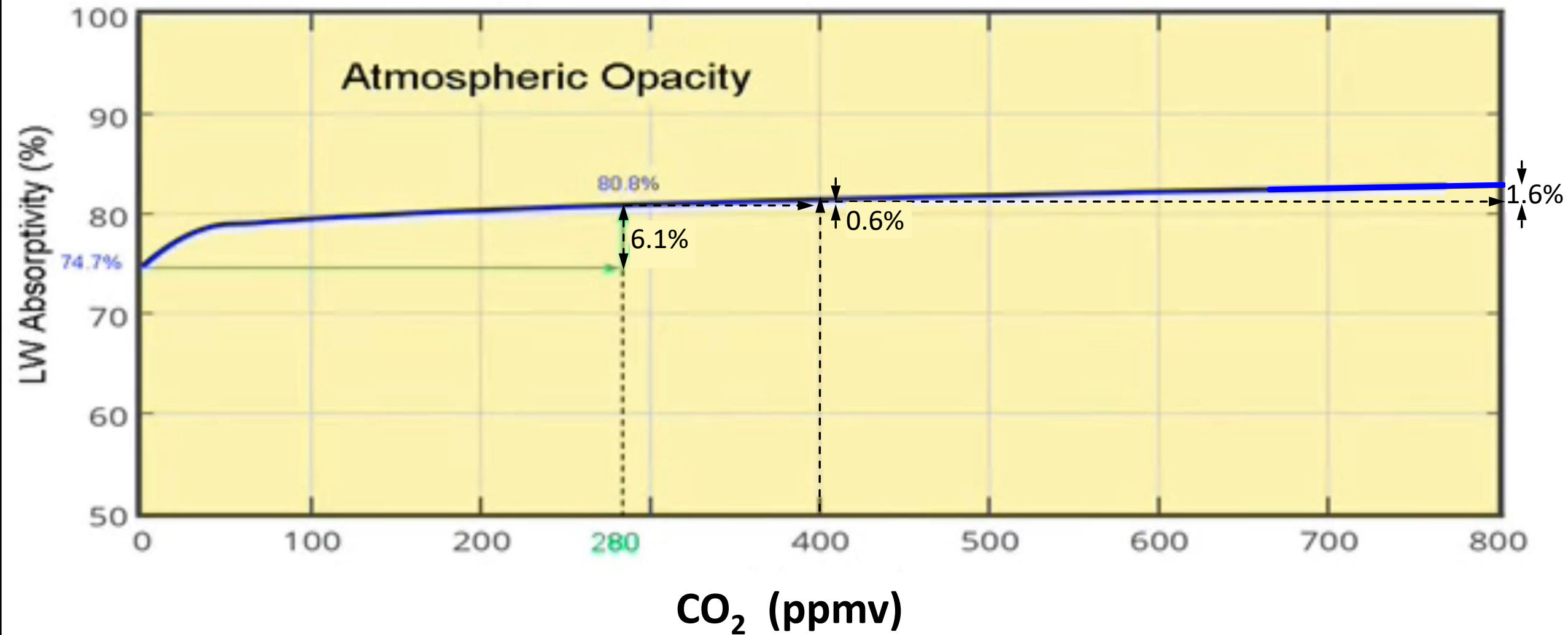
Heat Absorbing Capacity

Atmospheric Gas	Chemical Formula	'Warming Potential'	Concentration [ppmv]	WP × C
Sulfur Hexafluoride	SF ₆	23,000	0.0000025	0.0575
Ozone	O ₃	1,000	10	10,000
Nitrous Oxide	N ₂ O	300	0.32	96
Methane	CH ₄	30	1.8	54
Water Vapour	H ₂ O	10	1,200 - 30,000	300,000
Carbon Dioxide	CO ₂	1	390	390

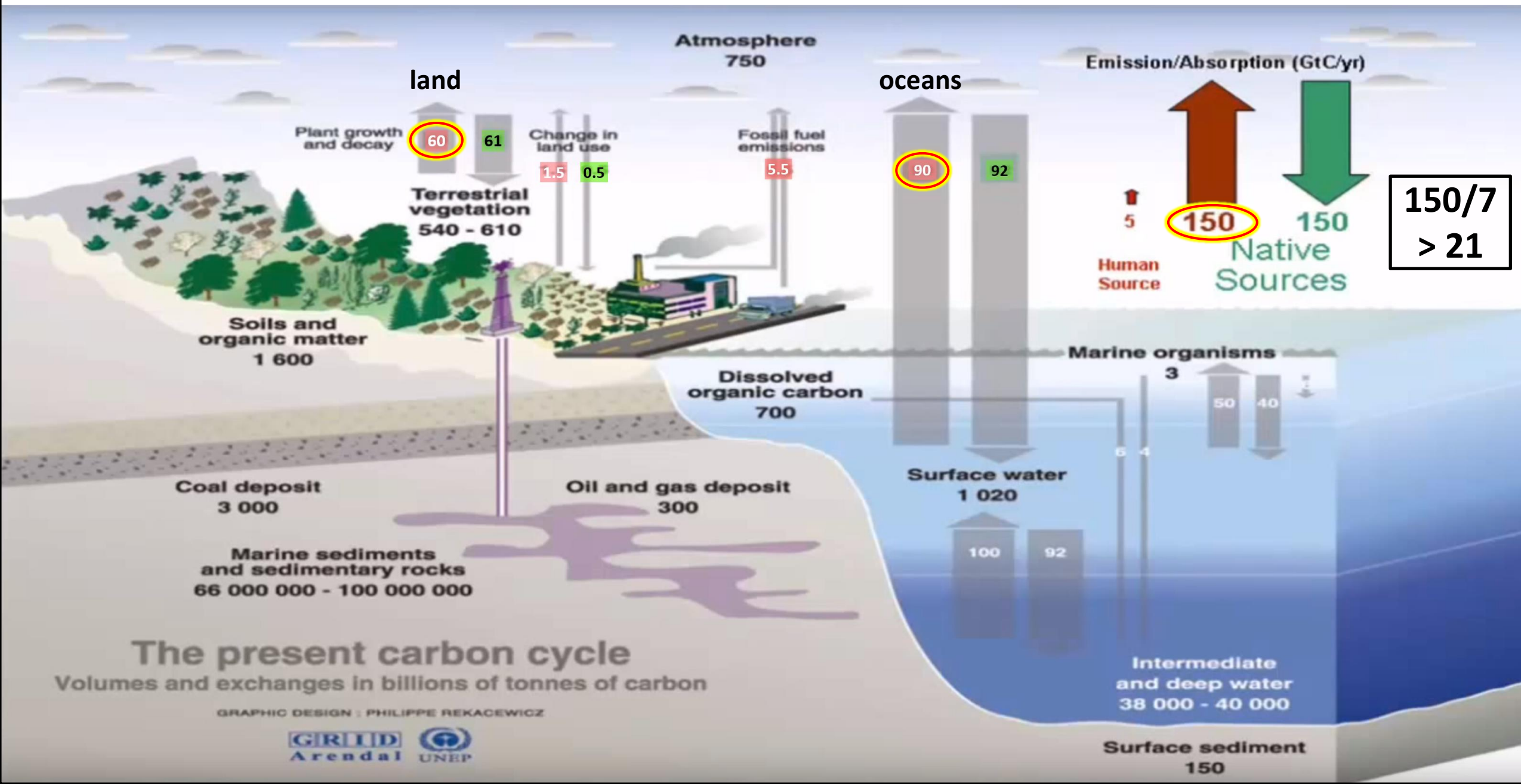
CO₂ has a Small Heat Absorbing Capacity



Increasing CO₂ Concentration has no Impact



Human CO₂ Emission is Dwarfed by Natural Emission



Human CO₂ Emission is Dwarfed by Natural Emission

Erupting + non-erupting subaerial volcanoes

5?



Atmosphere
750

Emission/Absorption (GtC/yr)

Plant growth and decay

60

61

Change in land use

1.5

0.5

Fossil fuel emissions

5.5

Terrestrial vegetation
540 - 610

90

92

5



Human Source

150



Native Sources

150

Soils and organic matter
1 600

Marine organisms

Dissolved organic carbon
700

3

50

40

Coal deposit
3 000

Oil and gas deposit
300

Surface water
1 020

100

92

submarine volcanoes

24



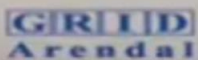
Intermediate and deep water
38 000 - 40 000

Marine sediments and sedimentary rocks
66 000 000 - 100 000 000

Surface sediment
150

The present carbon cycle
Volumes and exchanges in billions of tonnes of carbon

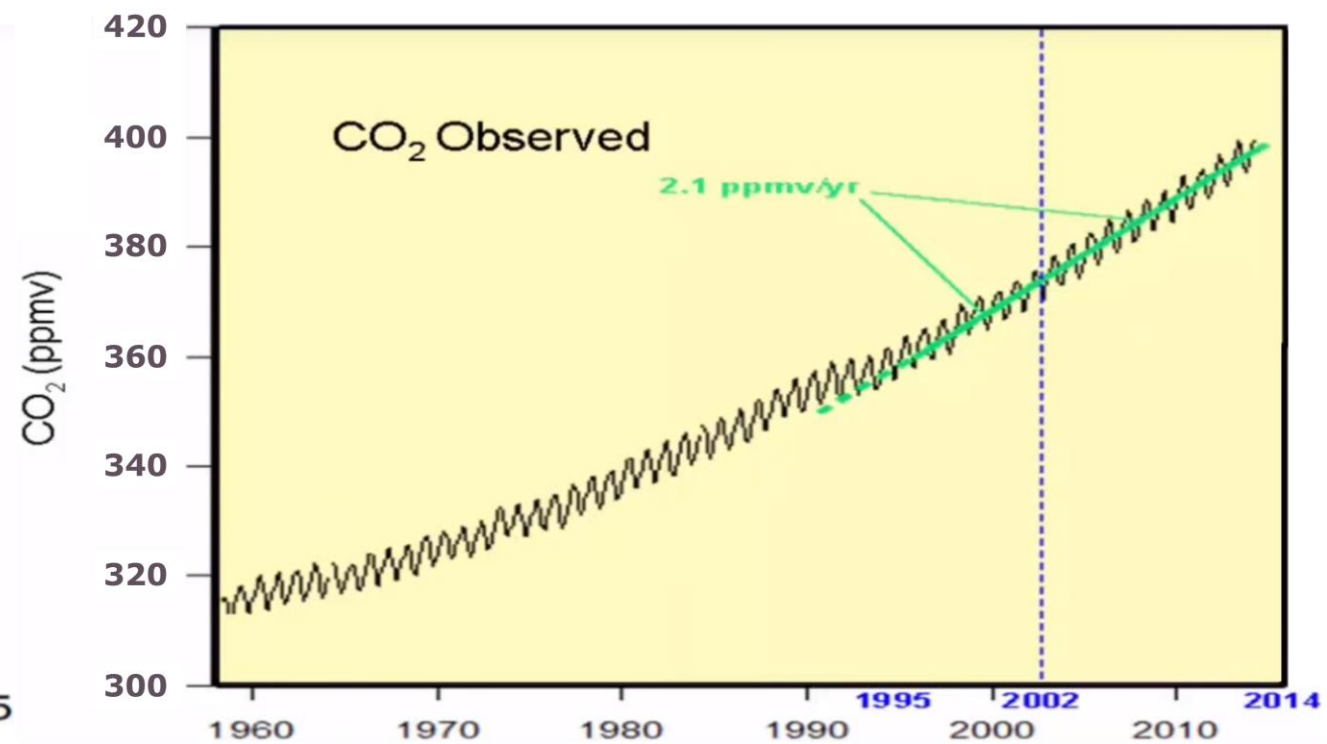
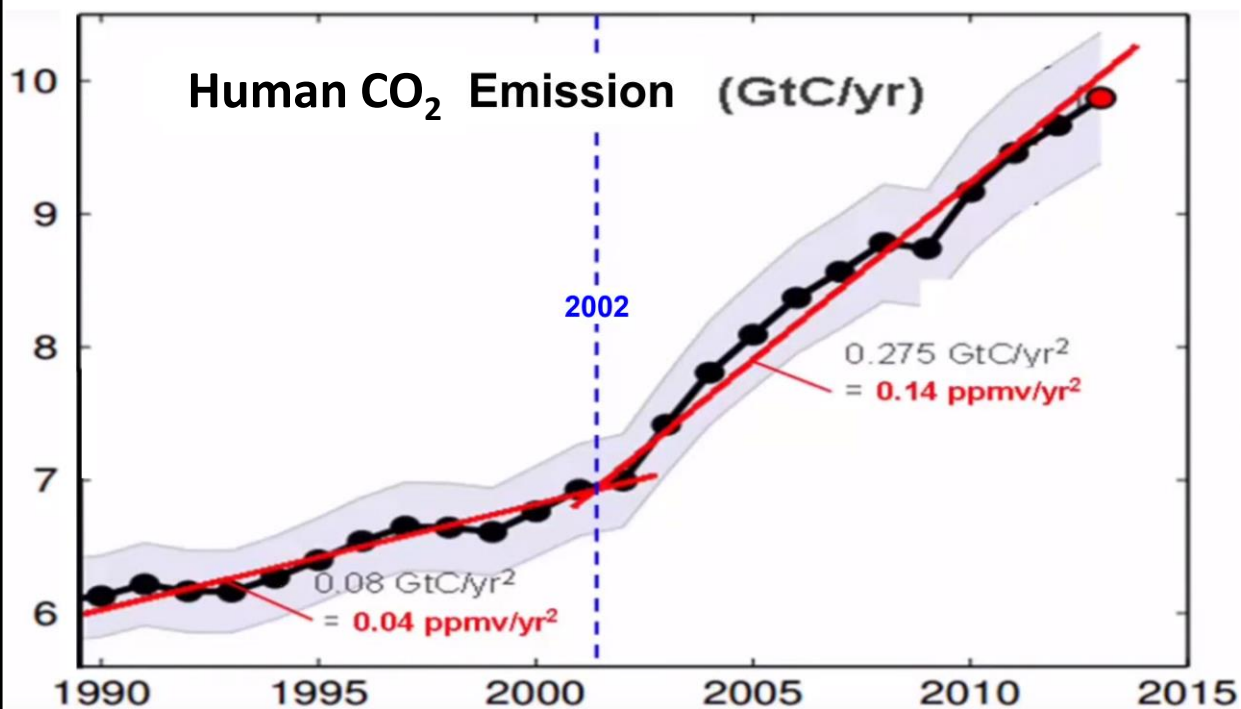
GRAPHIC DESIGN : PHILIPPE REKACEWICZ



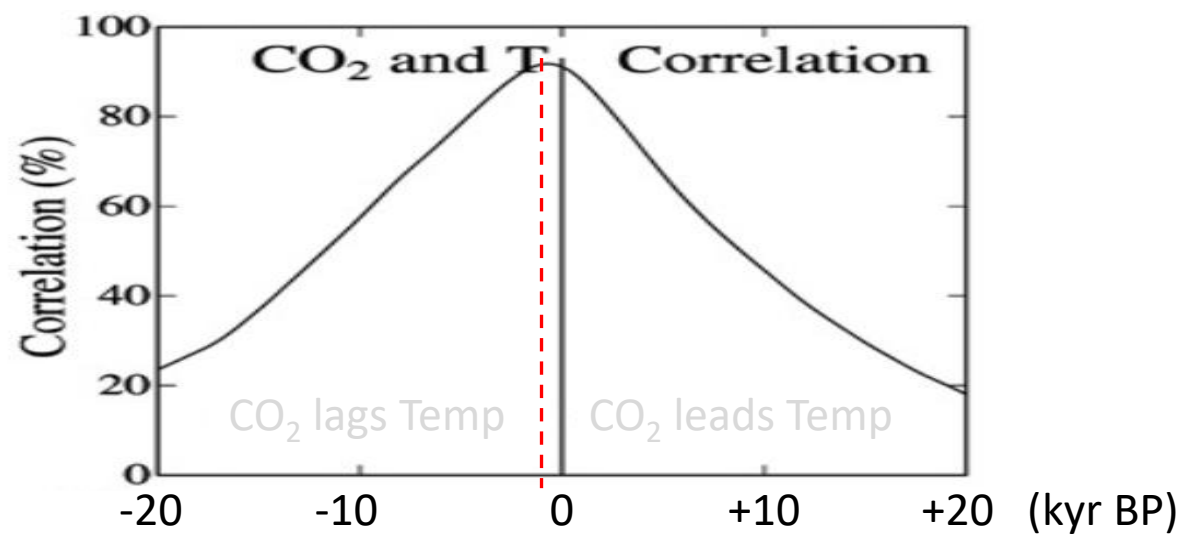
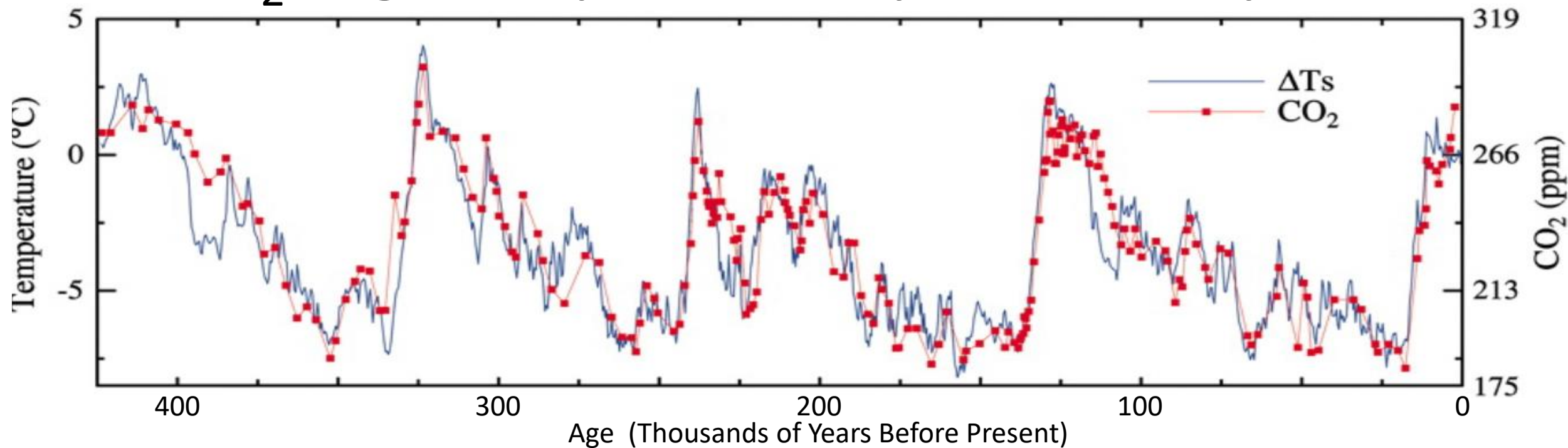
<https://principia-scientific.org/volcanic-carbon-dioxide/>
<https://doi.org/10.1029/2018EO109123>

<https://www.livescience.com/40451-volcanic-co2-levels-are-staggering.html>

Human CO₂ Emission is Dwarfed by Natural Emission



CO₂ Lags Temperature by 500-1000 years



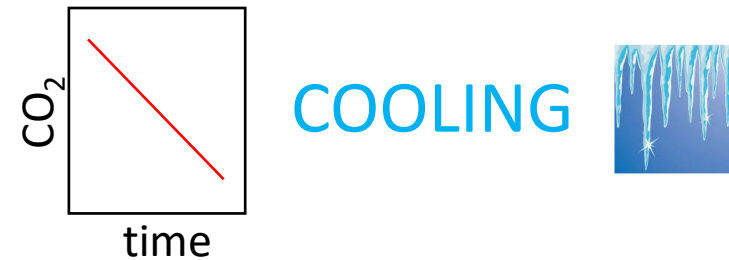
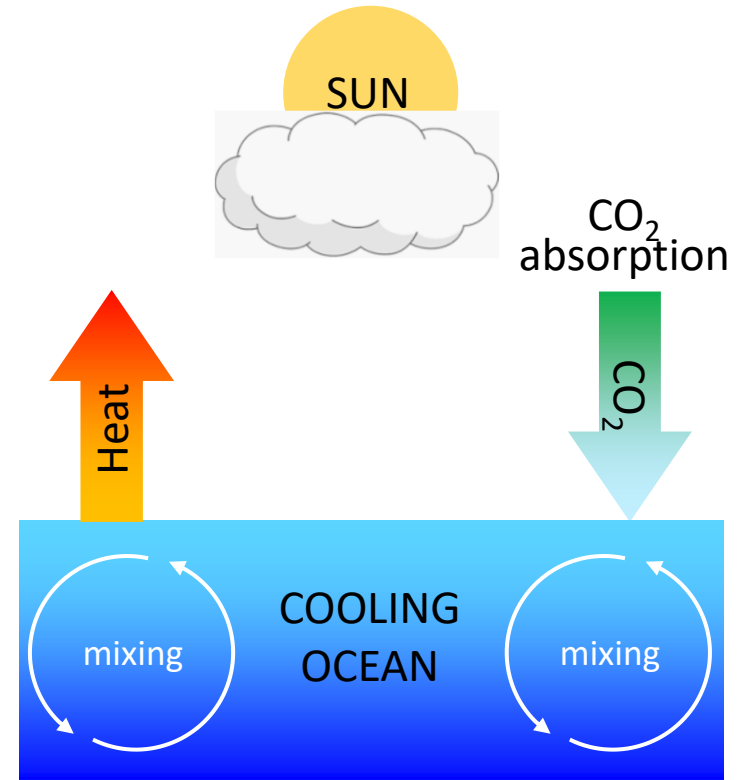
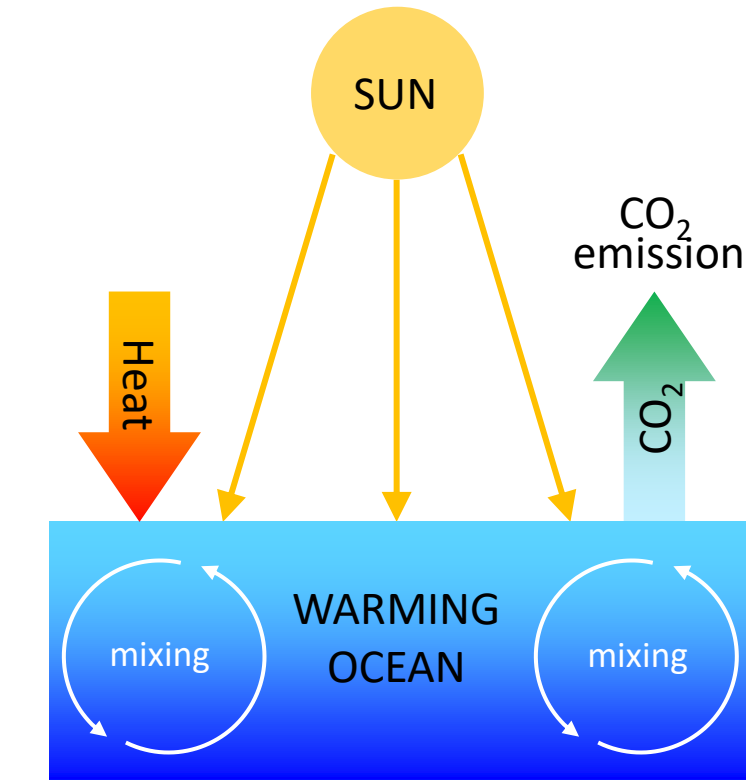
Temperature Controls CO₂ Emission

- Ice cores show that changes in atmospheric CO₂ *lag* temperature by 500-1000 years.
- Temperature changes *first*, then CO₂ *responds* 750 ± 250 years later.
- The average lag is 800 years.
- This fundamentally contradicts the most basic premise of man-made global warming:
- CO₂ emission does not control temperature; temperature controls CO₂ emission.
- **By itself, this contradiction disproves man-made global warming.**

Why does CO₂ Lag Temperature by 500-1000 years?

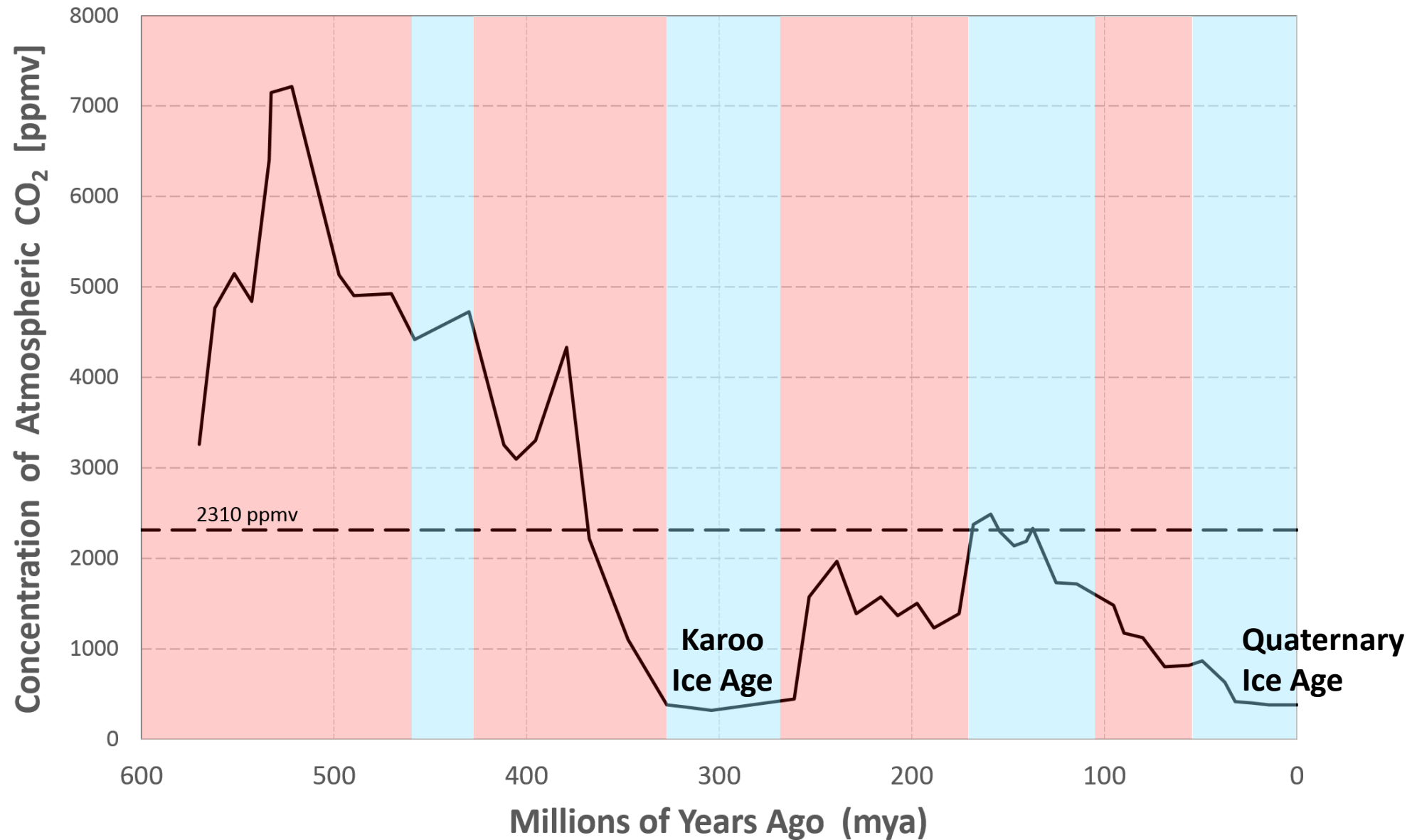
- 70% of Earth's surface is covered in water, to an average depth of 4km
(1.43 billion cubic kilometres of water)
- Solubility of CO₂ in seawater is inversely proportional to water temperature
(warm water emits CO₂ – cold water absorbs CO₂)
- Water has a huge heat capacity and therefore a huge *thermal inertia*
(more water = greater inertia)
- Due to thermal inertia, Earth's oceans take a long time to warm or cool
- Oceans represent Earth's largest CO₂ reservoir
- The 500-1000 year lag is due to the slow release or absorption of heat
(CO₂ level rises as oceans warm; CO₂ level falls as oceans cool)

Temperature Controls CO₂ Emission & Absorption

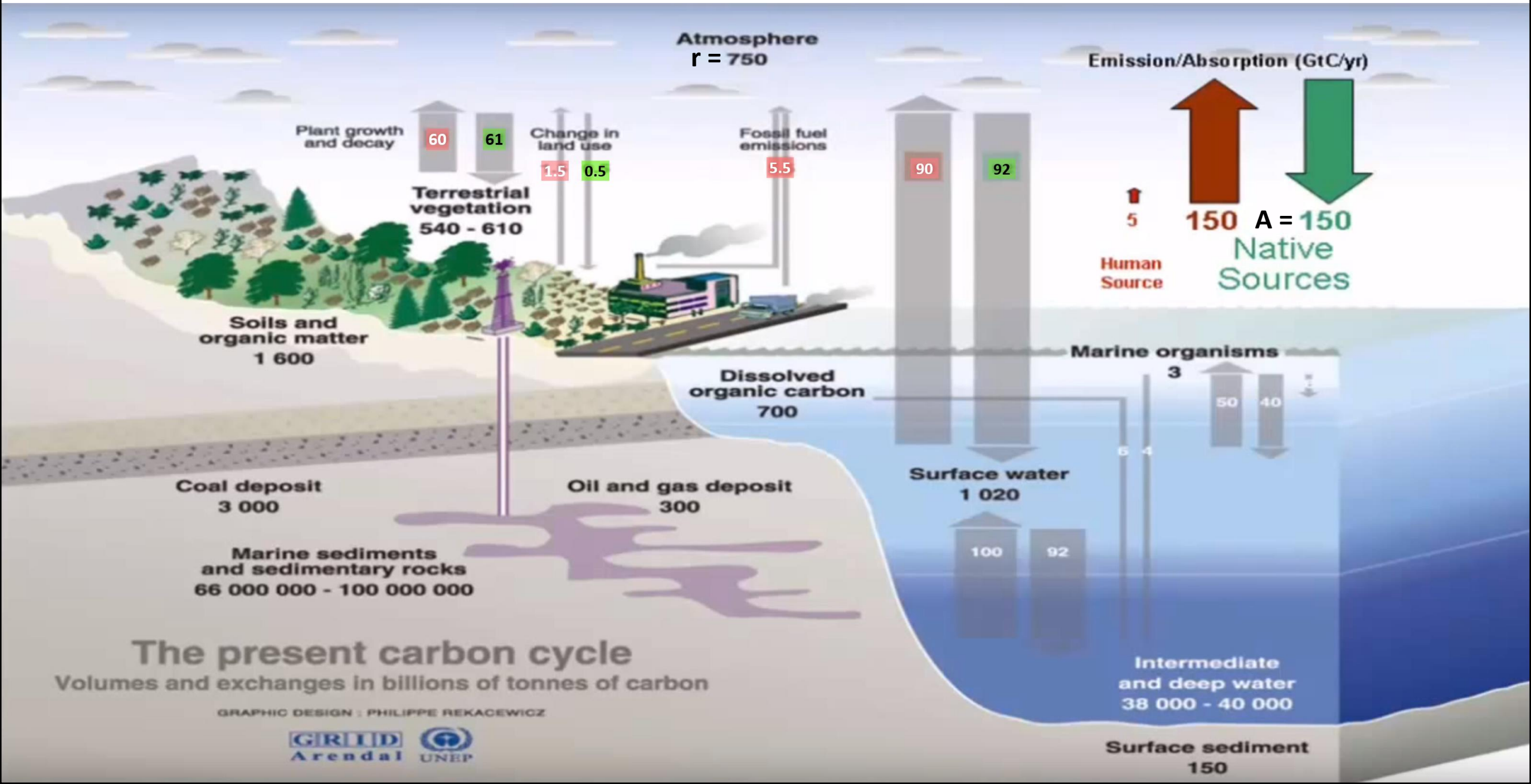


Current CO₂ Concentration is a Historic Minimum

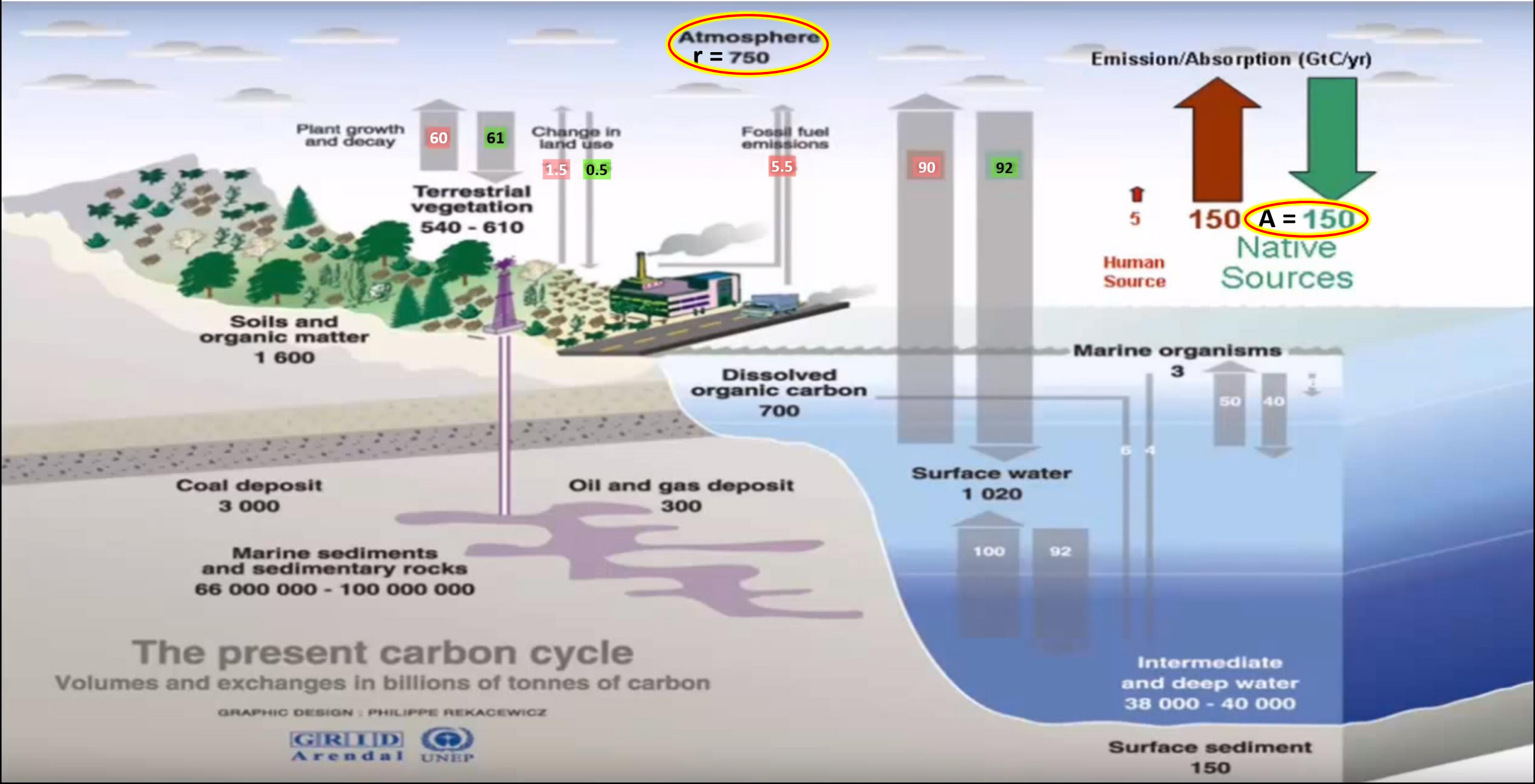
Concentration of Atmospheric CO₂ Over the Past 600 Million Years



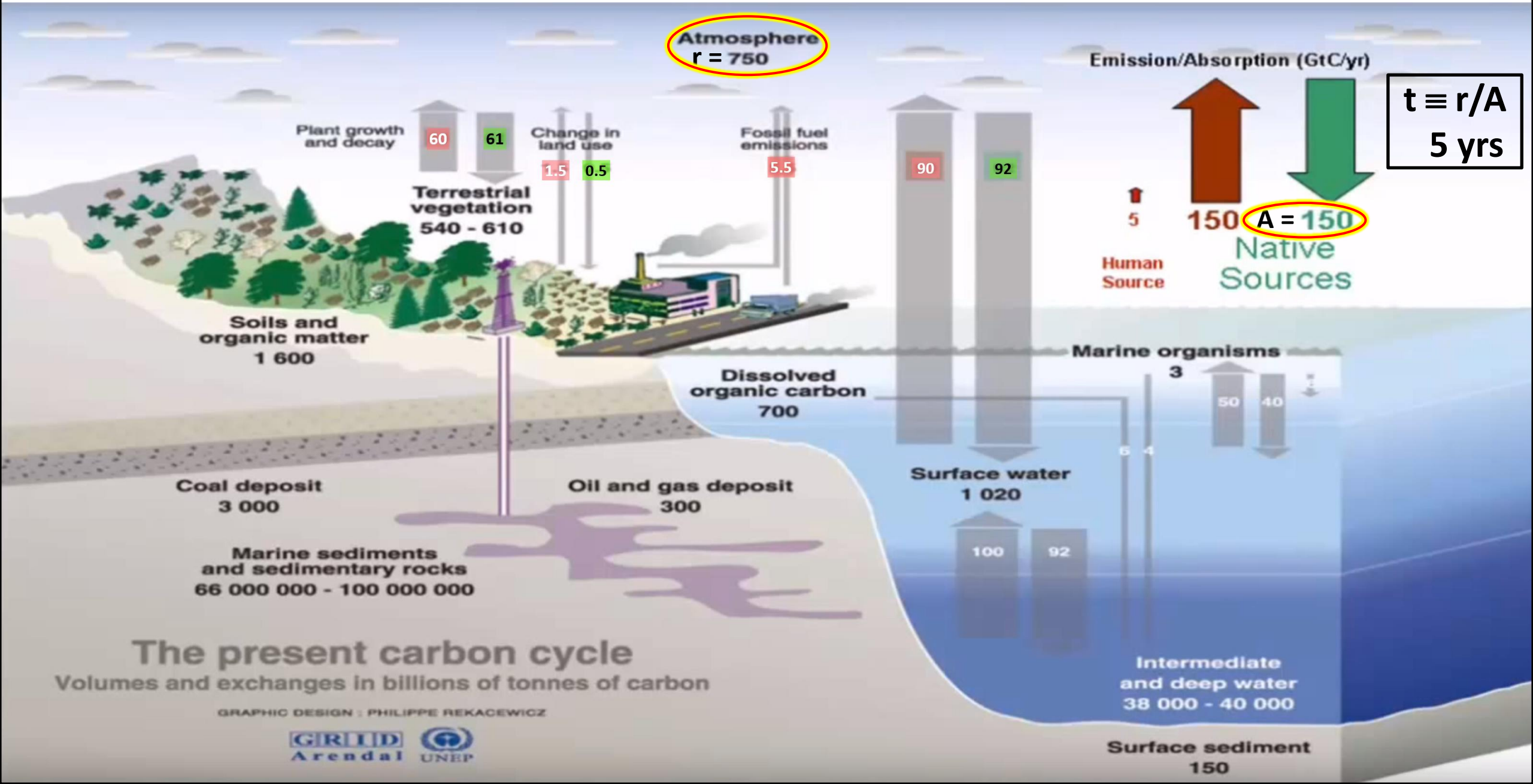
CO₂ Remains in the Atmosphere Less than a Decade



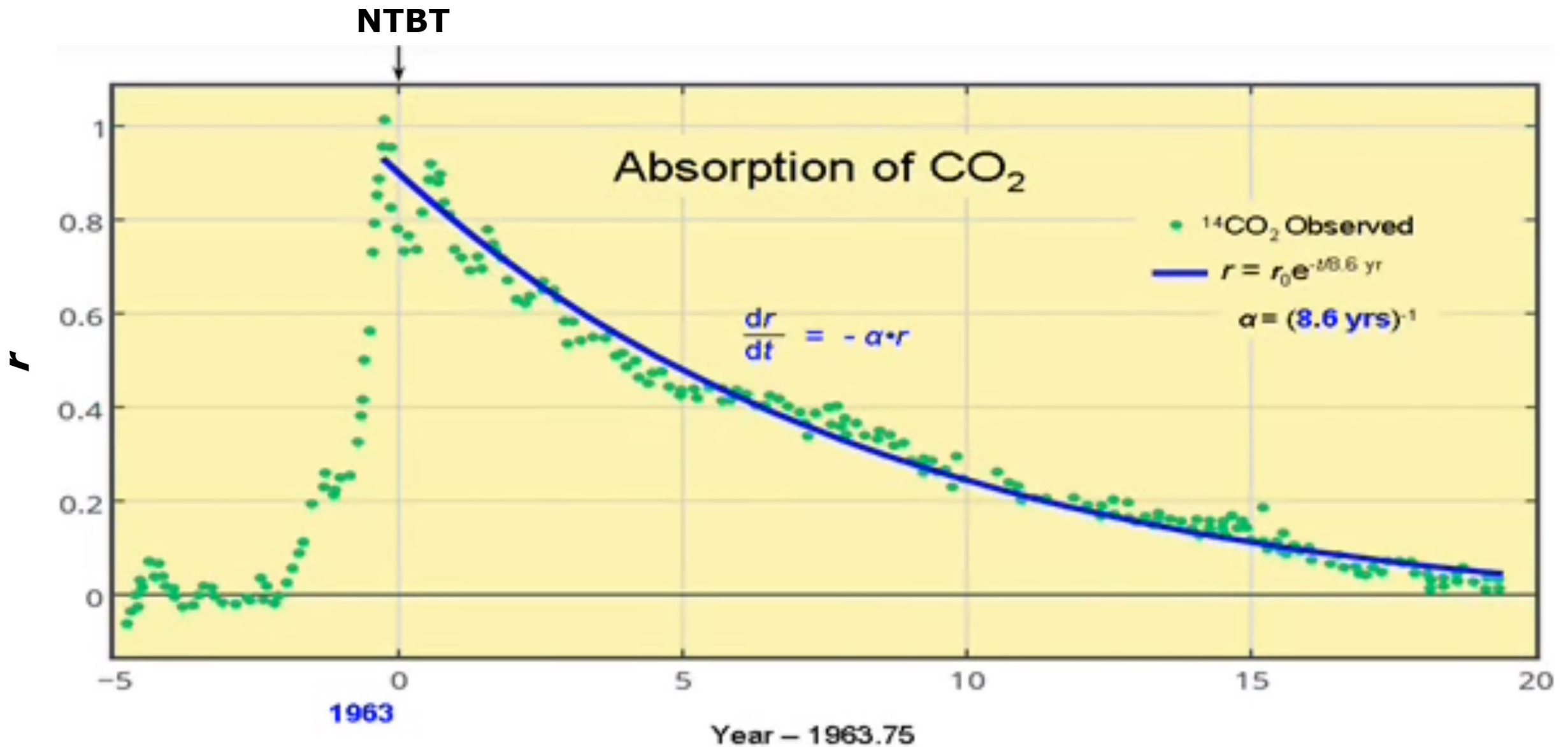
CO₂ Remains in the Atmosphere Less than a Decade



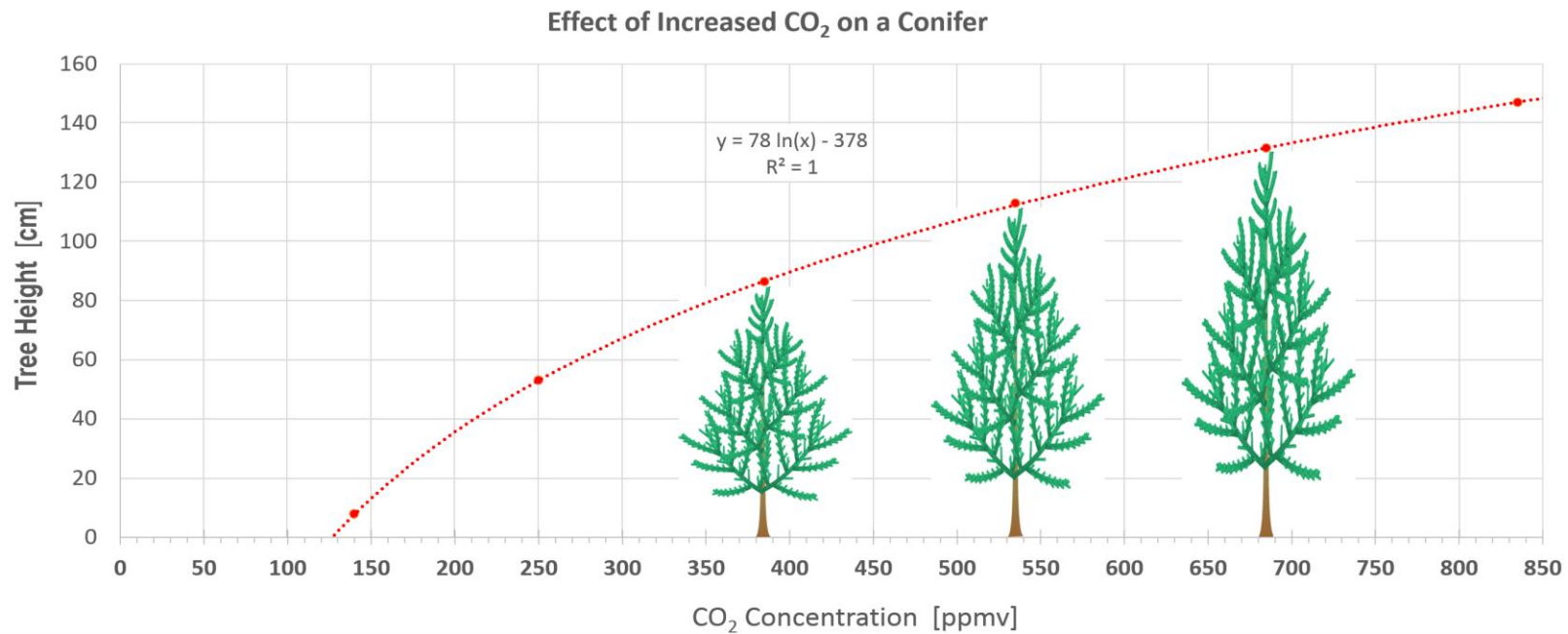
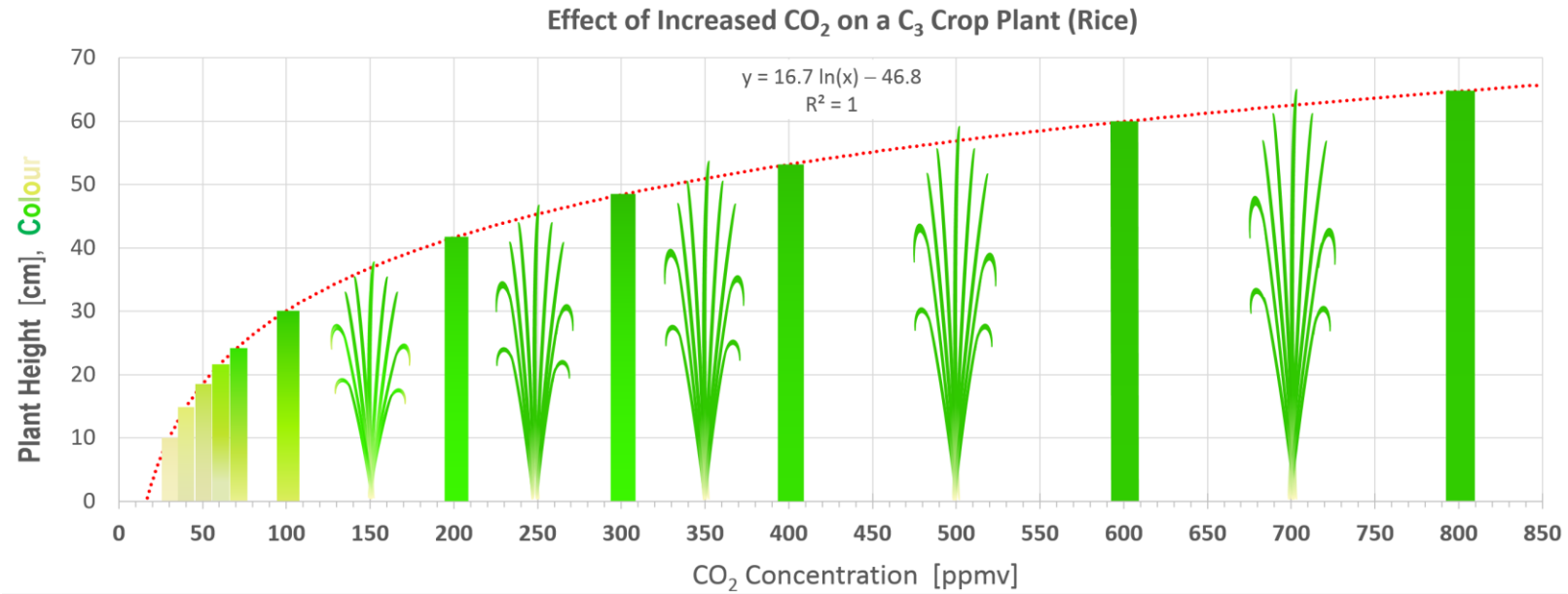
CO₂ Remains in the Atmosphere Less than a Decade



CO₂ Remains in the Atmosphere Less than a Decade



Increased CO₂ Concentration is Beneficial

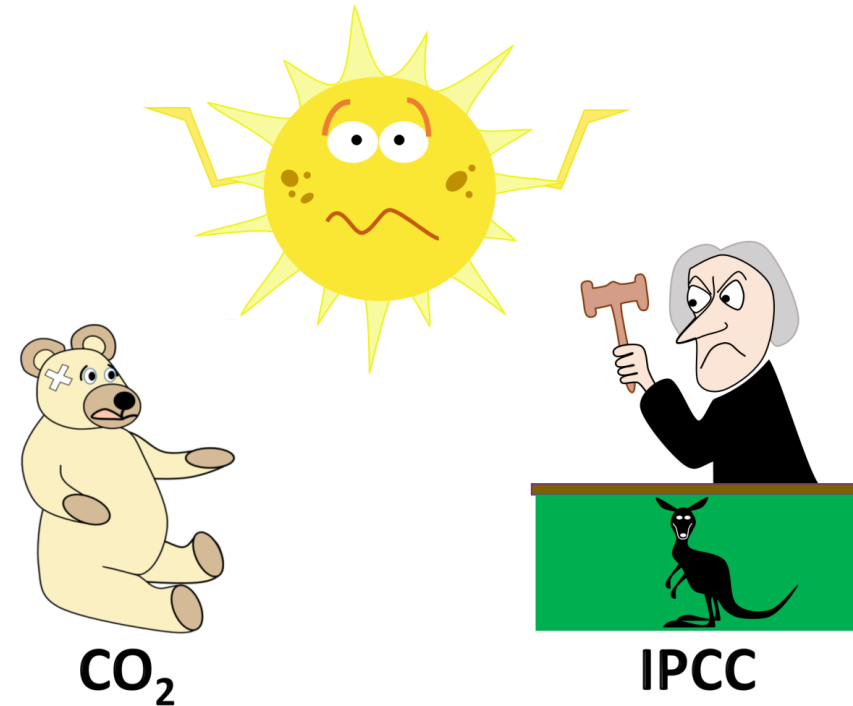


Conclusion

- man-made global warming is an ideology, not science
- the main factor controlling a planet's surface temperature is star proximity
- the effect of atmospheric CO₂ on Earth's climate is insignificant
 - water vapour has a much greater heat capacity and is 25-75 times more abundant than CO₂
 - water vapour absorbs heat over the entire spectrum of IR wavelengths
 - CO₂ absorbs heat over only a tiny range of IR wavelengths
 - increasing CO₂ concentration has no impact on overall heat-absorbing capacity
 - water vapour is the most important "greenhouse gas" (> 90% of GH effect)
 - human CO₂ emission is dwarfed by natural emission (from oceans, land, volcanoes, etc.)
 - **temperature controls CO₂ emission**
 - oceans are Earth's largest natural CO₂ reservoir
 - CO₂ is released as oceans warm, absorbed as oceans cool
 - past CO₂ concentrations have been more than 17x higher than present (> 7000 ppmv)
 - average CO₂ concentration over the past 600 My is 6x higher than present (2310 ppmv)
 - CO₂ has an atmospheric residence time of less than a decade
 - CO₂ is not a pollutant; it is as essential for life as water
 - CO₂ is plant food (fertilizer) – helps them grow bigger faster
 - present CO₂ concentration is uncomfortably close to the level at which plants cannot grow
- climate change is entirely natural and caused primarily by the Sun
- a runaway greenhouse cannot occur on Earth at the present Earth-Sun distance

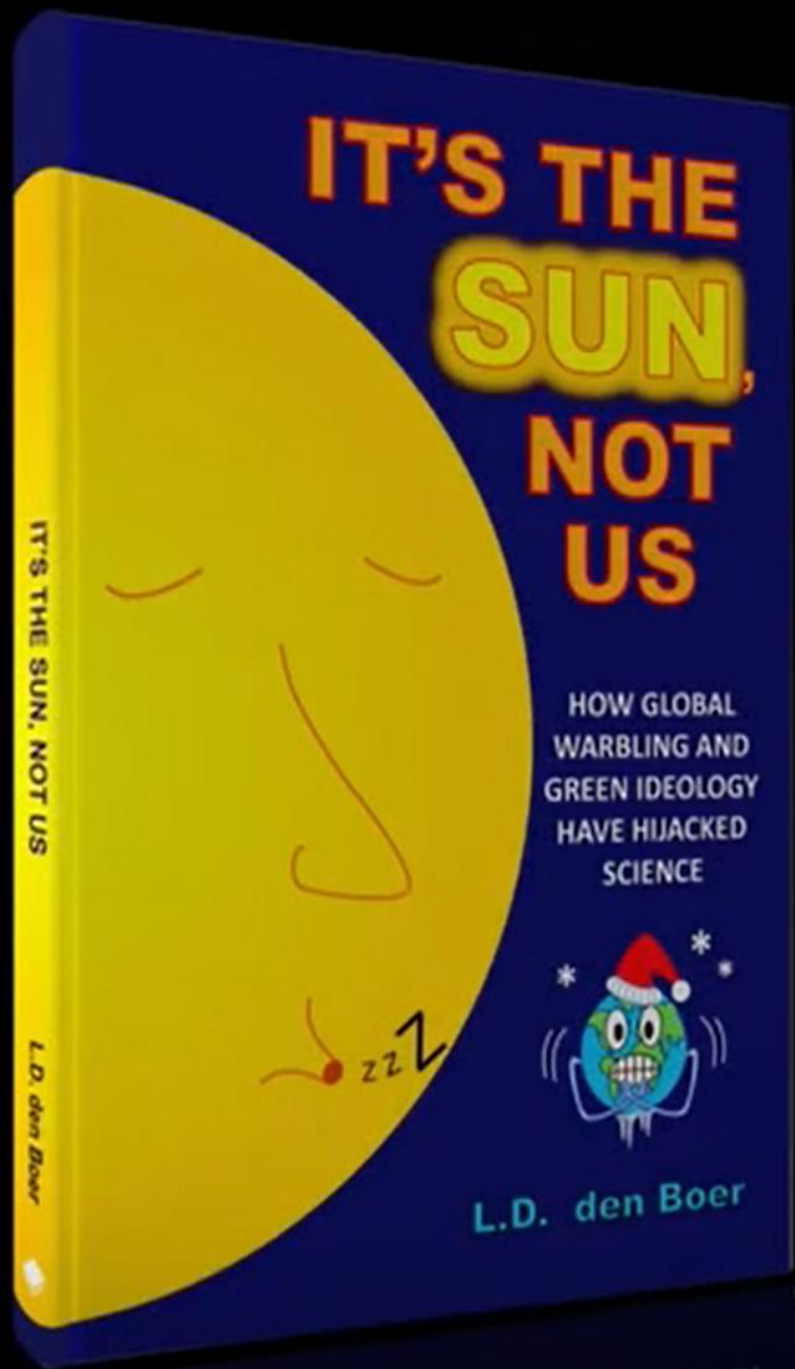
Man-Made Global Warming:

Ideology
Political propaganda
Contrived
Contradicts science



I've been framed !

The **only** thing man-made about global warming is the lie that carbon dioxide causes it.



It's The Sun, Not Us

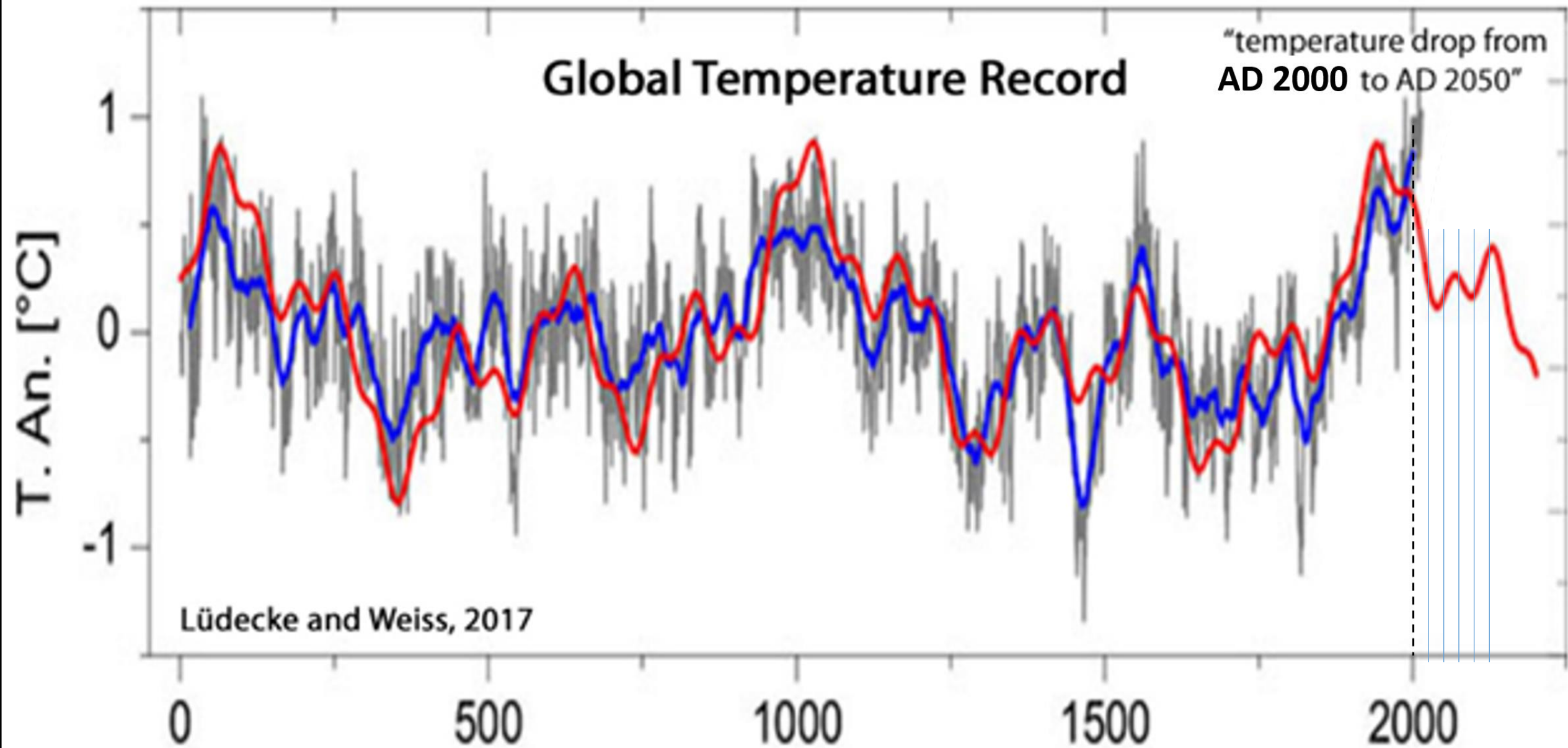
How Global Warbling and Green Ideology Have Hijacked Science

By geoscientist and professional
geophysicist,
L.D. den Boer

<https://books.friesenpress.com/store/title/119734000096913326>

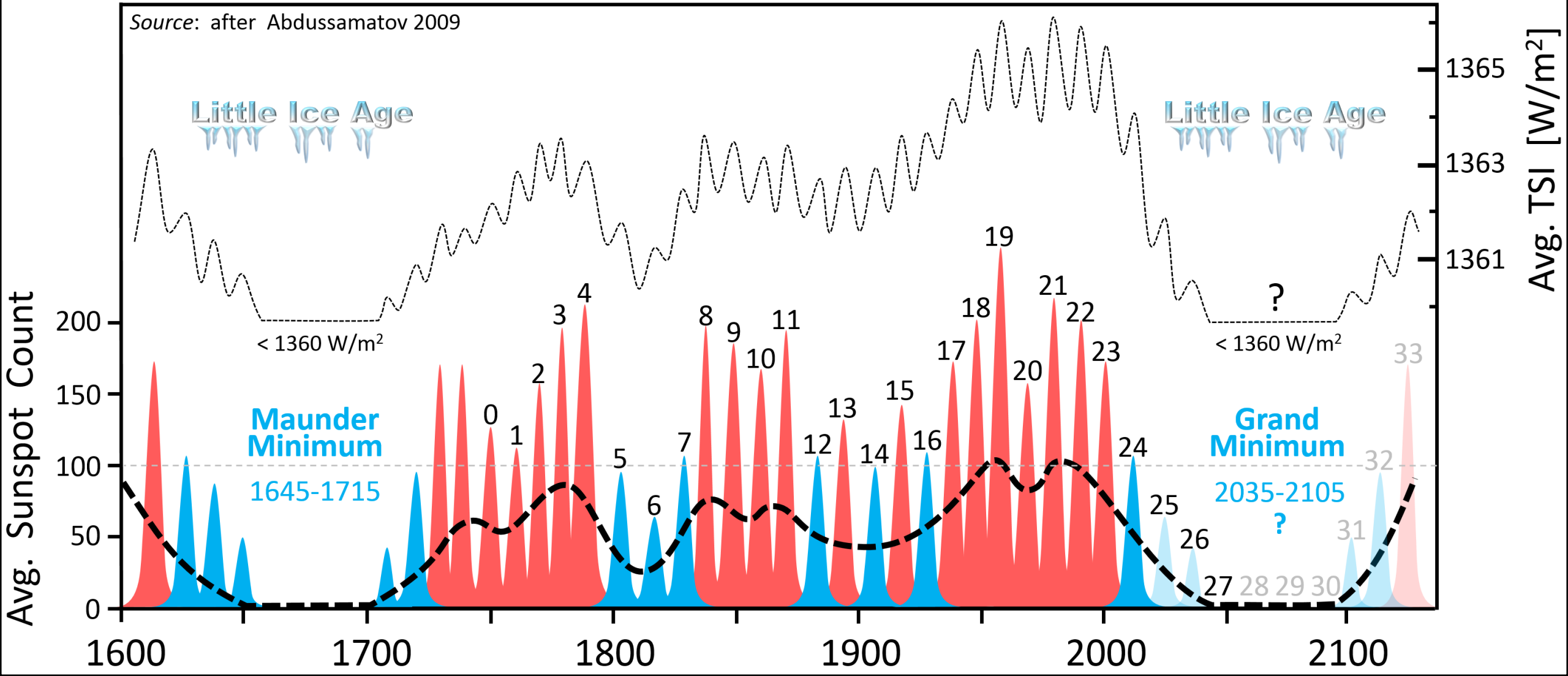
 **FriesenPress**
What's Your Story?

Global Cooling



Global Cooling

Grand Solar Minimum 2042 ± 11



Cosmic Rays & Ice Ages

Milky Way Galaxy
Spiral Arms

- Orion
- Sagittarius-Carina
- Scutum-Crux
- Norma
- Perseus

Variation of Cosmic Ray Flux During Galactic Orbit

(after Shaviv 2003)

