



SCC Publishing
Michelets vei 8 B
1366 Lysaker Norway

ISSN: 2703-9072

Correspondence:

cohler@jonathan-cohler.com

Vol. 6.3 (2026)

pp. 78-80

From Ten Thousand Years to Four

One Equation Falsifies the Entire IPCC CO₂ Narrative

Jonathan Cohler¹

Jonathan Cohler, Cohler & Associates, Inc., Lexington, MA, USA

Abstract

Physicist and AI researcher Jonathan Cohler has put forward a controversial and uncompromising challenge to one of the central assumptions of modern climate science and policy. He argues that the rise in atmospheric carbon dioxide over the past few decades is not due to human emissions, but is the result of natural processes. His conclusion is clear. The rise in atmospheric CO₂ is primarily due to natural processes, while the contribution from the burning of fossil fuels is negligible. His argument is based mainly on an analysis of the decline in atmospheric carbon-14 by nuclear weapons testing.

His presentation was not limited to CO₂. He claims to have refuted a chain of mutually reinforcing assumptions made by the Intergovernmental Panel on Climate Change (IPCC). He argued that the global mean surface temperature, climate models, the heat content of the oceans, and the Earth's alleged energy imbalance are either physically meaningless or insufficiently supported by observations. The final link in this chain, he said, is the IPCC's attribution of rising atmospheric CO₂ levels to human activities.

Keywords: Nuclear testing; carbon-14; carbon flow; carbon-13; carbon cycle models

Submitted 2026-09-3, Accepted 2026-09-03. <https://doi.org/10.53234/scc202608/18>

1. Introduction

Cohler's most important findings regarding atmospheric CO₂ stem from what he called the "bomb radiocarbon experiment." Between 1955 and 1963, atmospheric nuclear weapons tests doubled the amount of the (chemically identical) isotope carbon-14, also known as radiocarbon, in the atmosphere (in CO₂ molecules). Nearly all carbon atoms in the atmosphere are contained in CO₂ molecules.

After atmospheric nuclear testing ended, the excess radiocarbon in the atmosphere began to decline. Because the initial "pulse" was generated suddenly and its subsequent disappearance could be measured over decades, Cohler regards the radiocarbon data from the atomic bombs as an unusually clean natural experiment. "The atmosphere provided us with the answer," he said.

Cohler and his co-author Willie Soon analyzed radiocarbon measurements spanning more than five decades. They concluded that the radiocarbon excess follows a nearly perfect monoexponential decay with a characteristic timescale of about 18.4 years. He contrasts this with the significantly longer timescales used in the IPCC's carbon cycle models.

This distinction is crucial to his argument. The IPCC's carbon cycle calculations use impulse response functions with multiple exponential components and a permanent component of atmospheric CO₂. These models therefore imply that a significant portion of emissions remains in the

¹ Transcript from video by Peter Baeten, Clintel

atmosphere for centuries or even millennia.

Cohler argues that observations of radiocarbon from atomic bombs do not support the existence of such a long-lived atmospheric component. He also points out that the characteristic timescales and permanent fractions of the carbon cycle models published by the IPCC have changed significantly between the assessment reports. In his view, these changes demonstrate that the parameters are based more on model assumptions than on immutable properties of the carbon cycle.

The most striking comparison arose from the amount of radiocarbon that remained after 54 years. According to Cohler, the IPCC models predict that between 33 and 48 percent of a pulse would remain, whereas the observed radiocarbon signal from the atomic bomb indicates only about 4 percent.

For Cohler, this is not a matter of fine-tuning a model. It is evidence that the mathematical structure of the model is fundamentally flawed.

2. Parallel versus serial carbon flows

Cohler's criticism goes beyond the numerical parameters. He argues that the IPCC's carbon cycle models describe carbon reservoirs in the wrong physical configuration.

The IPCC's approach, he argues, essentially treats the atmosphere as a system of multiple reservoirs operating in parallel, each with its own decay time. According to Cohler, however, the physical carbon cycle is primarily serial: carbon moves from the atmosphere to the ocean surface, from there to deeper layers, and finally to the deep ocean.

This difference, he argues, leads to radically different mathematical behavior. According to his interpretation, the "long tail" in the IPCC models is therefore not a phenomenon observed in nature, but rather a product of the mathematical architecture imposed on the carbon cycle.

This is at the heart of Cohler's broader critique of the concept of cumulative carbon budgets. If an emission does not remain in the atmosphere for centuries or millennia, he argues, then the rationale for viewing today's emissions as long-term accumulation in the atmosphere changes fundamentally.

3. Carbon isotopes provide a second test

Cohler then turned to measurements of the carbon isotope carbon-13, which he presented as an independent test of radiocarbon analysis. Different sources of CO₂ exhibit different isotopic signatures. Fossil fuels are relatively low in carbon-13, while natural sources such as terrestrial respiration and oceanic outgassing exhibit different signatures. If emissions from fossil fuels were responsible for a significant portion of the net increase in atmospheric CO₂, Cohler argues, the isotopic composition of the net input would consequently have to become increasingly negative (with less carbon-13).

He cited an analysis by Demetris Koutsoyiannis that encompassed measurements from four air monitoring stations in both hemispheres over four decades (1978 to 2022). According to Cohler, the isotopic signature of the net CO₂ input remained approximately constant, with no significant trend. He argues that this is inconsistent with the notion that the burning of fossil fuels is the primary cause of the observed increase.

Cohler's third piece of evidence is a mass balance calculation. He compared the increase in atmospheric CO₂ with total natural and anthropogenic carbon fluxes. According to Cohler, during the period under study, the annual CO₂ input rose from about 179 gigatons to 241 gigatons. The anthropogenic contribution increased from about 2.5 to 4.7 percent of the total flux, while the natural input rose by more than 30 percent. Of particular importance to Cohler was that the natural flux tracked the atmospheric CO₂ mass remarkably closely during the study period.

He argues that these three independent approaches—the decay of radiocarbon produced by atomic bombs, the carbon-13 signature of the net input, and the mass balance—all lead to the same

conclusion: “The rise in atmospheric CO₂ levels over 62 years is of natural origin,” he explained to the audience. “The human contribution to this increase is negligible.”

4. An attack on the foundations of climate attribution

Cohler nevertheless framed the CO₂ debate within a broader critique of the IPCC. His presentation was structured around five “key points” that, in his view, form a circular chain. First, he cited the global mean surface temperature, which, according to Cohler, is not a physically meaningful quantity, since temperature is an intensive quantity and the Earth’s atmosphere, oceans, and land form a heterogeneous, non-equilibrium system. Building on this premise, he criticized the calibration process of climate models, arguing that they are calibrated to reproduce a quantity for which there is no unambiguous physical definition.

He then questioned the IPCC’s estimates of ocean heat content, particularly those derived from the Argo observation system, and argued that the Earth’s alleged energy imbalance is indistinguishable from zero once measurement and sampling uncertainties are properly accounted for.

These claims are relevant to his CO₂ argument, as Cohler views the entire climate attribution model as circular. Models are calibrated using calculated global temperature data. They are then used to estimate radiative forcing and the energy balance. These quantities are then used to attribute warming to greenhouse gases.

Carbon cycle models are the final link in the chain. If they inaccurately describe the atmospheric persistence of CO₂, Cohler argues, then the resulting calculations of greenhouse potential, carbon budgets, and net-zero pathways lose their physical basis.

5. Conclusion

The presentation therefore went far beyond the debate over the exact extent of human influence on atmospheric CO₂. Cohler put forward a much more fundamental thesis: The prevailing causal narrative underlying current climate policy is based on mathematical assumptions that contradict direct observations. Whether this interpretation will stand up to critical scrutiny by the broader scientific community is another question. This is a challenge with far-reaching consequences.

Funding

No funding specified

Co-Editor: Stein Storlie Bergsmark

Editorial note: The following disclaimer is standard journal text and will be maintained by the editorial office. Please do not edit or delete.

Disclaimer/Publisher’s Note:

This article reflects solely the views, analyses, and conclusions of the author(s). Science of Climate Change, its editors, and its publisher make no representation or warranty as to the accuracy or completeness of the content and disclaim liability for any loss, damage, or other consequence arising from the use of, or reliance on, any material published herein.