The lack of substantiation of the Green house model

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Introduction
A countless number of articles have been written about the Green house model: one part to show its correctness, the other part its incorrectness, like for example reference [1].

The conclusions of that article sound:
• until today the “atmospheric Green house effect” does not appear in any fundamental work of: thermodynamics, physical kinetics, or radiation theory;
• the definitions given in the literature beyond straight physics are very different and, partly, contradict to each other

The consequence of falsifying the atmospheric Green house conjecture is in fact that, given the situation that no alternative is available, the climate problem, assumed to be caused by mankind, has to be denied. It must be a natural phenomenon, is the common reaction. However, figure 1 cannot be denied. It shows an extremely rapid and significant increase of the atmospheric temperature during the past centuries.

![Figure 1: Global temperature since the year -20000](image)

The heating and cooling of the atmosphere

The Green house model is fundamentally based on the net result of the heating of the atmosphere by sun’s radiation during day time and cooling during night time by radiation into space. Figure 2 shows, in a simplified way, the heat energy stored in half the atmosphere that will, 12 hours later, be emitted into space. It must be excluded that not all of this energy, stored in the atmosphere, will be emitted back again into space only as a result of a higher concentration of Green house gases.

![Figure 2: Simple configuration of earth’s heating and cooling radiation](image)
The heating and cooling of earth’s surface

Besides the heating of the atmosphere, earth’s surface is heated too. During cooling down of the atmosphere, on space side, it is at the same time heated on earth side as a result of the radiation of earth’s surface. The crucial question is: why would this heat energy, after having being absorbed by the atmosphere, not completely be emitted into space too by the atmosphere? It is of course essentially the same process as the one in which the atmosphere is heated by the sun and fully cooled down during night time.

Conclusion:
It is considered unlikely that the Green house model is a correct model, especially now that there is a heating source found, the so-called Living room model, that perfectly explains earth’s present temperature raise of 1 °C, while the much higher power generated by the Green house model would have led to a raise of 15 °C. This Living room model is in detail described in reference [2].

The Living room model

This model has a peculiar property, fundamentally different from the Green house model. Mankind consumes energy that is more or less immediately converted into heat energy and partly (see [2] for the details) absorbed by the atmosphere through convection. That energy cannot leave the atmosphere, because it is not only supplied unceasingly, but also all over the world during day and night time.

This phenomenon can be compared with, for example, a pan of water on a stove. At an equilibrium of added and emitted energy, the water is at a certain temperature, higher than its environment. As long as that stove is held at the same power, the water is held at that temperature. As soon as the stove is switched off, the temperature decreases until the temperature of the environment has been reached. If the heat of the stove is increased, the temperature of the water will increase until a new equilibrium is reached.

_The pan of water on a stove can be replaced by a heated living room!_

In the situation under consideration the power of the mankind-stove is not only supplied unceasingly. It increases continuously too, as a result of the increase of the mean consumed energy per person and of the (explosive) growth of mankind.

Ridiculous comparison

Reference [3] presents the following comparison:

“Several Skeptical Science contributors worked together to publish a scientific paper which combined the land, air, ice, and ocean warming data. It found that for recent decades the earth has been heating at a rate of 250 trillion Joules per second. “Joules per second” is a difficult unit of measure to appreciate, and is especially foreign to people who are unfamiliar with science. This widget attempts to put that heating into terms that are easier to visualize. 250 trillion Joules per second is equivalent to detonating four Hiroshima atomic bombs per second.”

The report about the Living room model indeed agrees with the 250 trillion J/s, so 250 TW, but as the alleged power generated by the Green house model. The power generated by the Living room model is about 15 times lower, resulting in the comparison: equivalent to detonating one Hiroshima atomic bomb per four seconds. As presented above, the 250 TW would have led to an earth’s temperature raise of 15 °C.

References