C0r0n@ 2 Inspect

Review and analysis of scientific articles related to experimental techniques and methods used in vaccines against c0r0n@v|rus, evidence, damage, hypotheses, opinions and challenges.

Monday, August 9, 2021

Injecting graphene oxide aerosols into the atmosphere:
Solar geoengineering and the role of aerogels

Reference

Vukajlovic, J .; Wang, J .; Forbes, I .; Šiller, L. (2021). Diamond-doped silica airgel for solar geoengineering. Diamond and Related Materials, 108474.
https://doi.org/10.1016/j.diamond.2021.108474

Introduction

1. After analyzing the CO2 adsorbing capacity of graphene oxide , its implications for the nucleation of ice in the atmosphere and its more than probable dispersion in the combustion gases of aircraft , it is clear that the condensation effects caused by jet turbines, generate water vapor, seeding clouds and a more than probable contamination with soot and graphene oxide residues, which would explain the presence of graphene oxide in rainwater. Continuing with this research, the relationship between graphene oxide and the injection of aerosols into the atmosphere is discovered. Taking into account that the graphene oxide "GO" has adsorbing properties of CO2, it would seem logical its dissemination in the atmosphere to face its reduction and at the same time generate clouds with which to cause a cooling of the temperature and later the precipitation and achievement of water resources. In short, it is about climate control, or what is the same climate geoengineering. For this reason, the search for the scientific literature on geoengineering techniques using graphene "G" or graphene oxide "GO" began.
2. A general search on the web, leads to a very striking news , which has gone unnoticed for several years. It is the " hypothetical " geoengineering project to fight climate change (Berardelli, J. 2018). Specifically, it echoes the scientific article by (Smith, W.; Wagner, G. 2018) that proposes " *A fleet of 100 aircraft that perform 4,000 missions around the world a year could help save the world from climate change. Aircraft that spray tiny sulfate particles into the lower stratosphere, about 60,000 feet above sea level. The idea is to help protect Earth from enough sunlight to help keep temperatures low*."The study of costs is one of the objectives of the article, in fact in the news they indicate " *The researchers examined how practical and costly a hypothetical solar geoengineering project would begin in 15 years* . "It is at this point where the presence of the term" solar geoengineering "which is the climatic intervention through the release of nanoparticles in the atmosphere to reduce the incidence of solar radiation, avoiding the solar refraction effect, cited by the SCoPEX project financed by Bill Gates (Figueroa, A. 2021 | Neslen, A. 2017). This is paradoxical, since the release of nanoparticles into the atmosphere to address the reduction of global warming, in addition to being a direct intervention in natural climatic processes, can involve unpredictable side effects.

In fact (Moreno-Cruz, JB; Keith, DW 2013) state that " *The uncertainty about SRM (Solar Radiation Management) is high and decision makers must decide whether or not to commit to research that can reduce this uncertainty* ". In other words, the researchers are unaware of the effects of solar geoengineering, however, they do point out that it is a quick and cheap solution to offset climate change, as can be deduced from the following words "*Solar Radiation Management (SRM) has two characteristics that make it useful for managing climate risk: it is fast and cheap ... We introduce SRM into a simple economic model of climate change that is designed to explore the interaction between uncertainty in the climate response to CO2 and SRM risks in the face of carbon cycle inertia ... "to end with the following conclusion" SRM is valuable for managing climate risk, not because of its low cost, but because it can be implemented quickly if we found climate impacts to be high, 'a climate emergency*'"This suggests that researchers propose solar geoengineering research and testing despite not knowing the adverse effects they can cause, based on cost / benefit estimates, without scientific evidence. Interestingly, seven years later some problems such as possibility that" solar geoengineering causes excessive cooling " (Abatayo, AL; Bosetti, V.; Casari, M.; Ghidoni, R.; Tavoni, M. 2020) so the use of this technology, in the words of the authors "allows countries to unilaterally influence global temperature. Solar geoengineering could trigger conflicting interventions by countries that prefer different temperatures; Economic theory suggests that countries that want a cooler climate impose it on others. Other countries may react through countergeoengineering interventions. " It is interesting to note how many authors take for granted the ability to infer climate through solar geoengineering and move the debate to the geopolitical realm," of global governance ", see (McLaren, D.; Corry, O. 2021 | Reynolds, JL 2019 | Jinnah, S.; Nicholson, S.; Flegal, J. 2018 | Bunn, M. 2019 | Lloyd, ID; Oppenheimer, M. 2014) among others that can be consulted on intitle: "solar geoengineering" intitle: "governance " .

Facts

1. The researchers (Vukajlovic, J.; Wang, J.; Forbes, I.; Šiller, L. 2021) take for granted in their abstract that the injection of aerosols into the stratosphere has been developing to reduce the incidence of solar radiation. In this sense, sulfate aerosols have been used, which have the disadvantage of degrading the ozone layer and acting as sources of absorption of infrared IR radiation. This is stated as follows "*Although injecting aerosols into the stratosphere is one of the most promising solar geoengineering techniques, sulfate aerosols, which are suggested for such an application, show significant drawbacks such as infrared (IR) absorption and ozone degradation. . The development of new materials for such an application is needed that exhibit substantial upward scattering, with non-IR absorption to allow a cooling effect* . "This explanation also assumes that solar geoengineering also has the goal of reducing temperature or producing a cooling effect, so this methodology is clearly framed in the context of the fight against climate change.

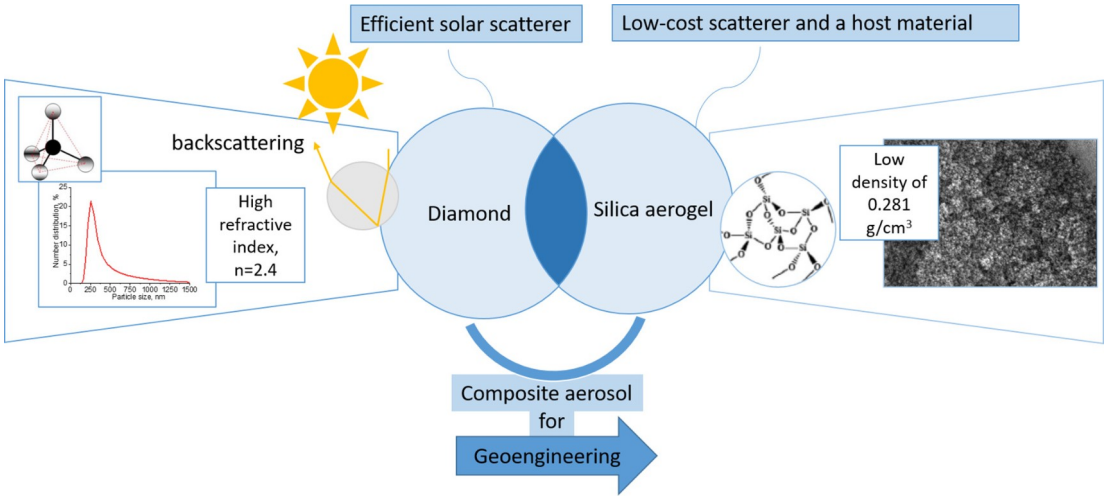

Fig. 1. Geoengineering scheme to reflect solar radiation with silica airgel, substitutable by graphene oxide airgel (Vukajlovic, J.; Wang, J.; Forbes, I.; Šiller, L. 2021)

2. The compound they propose for aerosol injection projects is highly porous silica airgel (a property that is also shared with graphene oxide, see entry on CO2 adsorption and absorption), which allows it to house diamond nanoparticles. This gives the material the ability of diffuse reflectance, to reduce or reflect solar radiation. Furthermore, the authors acknowledge that other aerogels could be used for such purposes, specifically graphene aerogels. This statement is stated as follows " *Structures composed of silica aerogels with different carbon nanostructures in the form of nanotubes, nanofibers and graphene have also been developed (Lamy-Mendes, A.; Silva, RF; Durães, L. 2018 Furthermore, aerosols PM2.5 (particles less than 2.5 µm) are considered harmful to humans during respiration. However, it is suggested that aerosol particles should be within a size range of ~ 0.1-1 µm to minimize health risks* . "This is very interesting since the authors are aware of the risks to health and despite everything they recommend a size in a range of 0.1-1 µm, which in fact is easily inhaled and exceeds the barrier of any mask (Sharma, S.; Pinto, R.; Saha, A.; Chaudhuri, S.; Basu, S. 2021).
3. It is worth delving into the details of the use of graphene oxide as a component to make the silica airgel. The authors cite the article by (Lamy-Mendes, A.; Silva, RF; Durães, L. 2018) that analyzes other possible carbon-derived nanomaterials, including " *carbon nanotubes, carbon nanofibers, graphene and aerogels of carbon* ". The more than 70-page report consists of a section where the subject of graphene and graphene oxide airgel is specifically addressed, stating that " *The use of graphene oxide (GO) is justified by the fact that, unlike bare-surfaced graphene, it possesses a large number of oxygen-containing groups (epoxide and hydroxyl groups, for example), which improve the solubility of graphene. in solvents and the interaction with the silica network* . "This means that graphene oxide is a suitable material for the production of airgel intended for solar geoengineering. In fact (Lamy-Mendes, A.; Silva, RF; Durães, L. 2018), in their conclusions indicate that "*Although silica aerogels have exceptional properties, such as low bulk density and thermal conductivity, and high specific surface area, an effort has been made in the last decade to obtain materials with distinctive characteristics compared to native silica aerogels. Various strategies for the modification of aerogels have already been studied, with the addition of particles, polymers or fibers being some of the possible additives to provide and / or improve different properties of silica aerogels. As reported in this review, a new approach has been developed for modifying these aerogels by inserting carbon nanostructures, such*

as carbon nanotubes, carbon nanofibers, graphene, and carbon aerogels. " This proves that graphene oxide can be used in the injection of aerosols into the atmosphere, for solar geoengineering purposes. This statement is also shared by (Qu, ZB; Feng, WJ; Wang, Y .; Romanenko, F .; Kotov, NA 2020) considering that graphene nanosheets, called by the authors " *GQD*" (Graphene Quantum Dots), can be used in solar geoengineering. This is probably also due to the optical reflection properties of graphene oxide in photonic silica crystals (Lee, CH; Yu, J.; Wang, Y.; Tang, AYL; Kan, CW; Xin, JH 2018), according to the airgel material to which they refer (Vukajlovic, J.; Wang, J.; Forbes, I.; Šiller, L. 2021).

Graphene oxide and Fe3O4 aerogels

1. Before starting this part of the analysis, it is convenient to remember that iron oxide Fe3O4, also known as magnetite, is one of the materials that is most frequently combined with graphene oxide, given its versatility of use. For example, its electromagnetic absorption properties (Ma, E.; Li, J.; Zhao, N.; Liu, E.; He, C.; Shi, C. 2013); Superparamagnetic graphene oxide-Fe3O4 nanoparticles for the delivery of drugs and biocides, fertilizers and pesticides (Yang, X.; Zhang, X.; Ma, Y.; Huang, Y.; Wang, Y.; Chen, Y. 2009 | CN112079672A. 李 旄 ; 罗超贵 . 2020); administration of DNA vaccines for experimental cancer treatments and gene therapies (Shah, MAA; He, N.; Li, Z.; Ali, Z.; Zhang, L. 2014 | Hoseini-Ghahfarokhi, M.; Mirkiani, S.; Mozaffari , N .; Sadatlu, MAA; Ghasemi, A.; Abbaspour, S.; Karimi, M.2020);Other cancer treatments based on platinum therapies (Yang, YF; Meng, FY; Li, XH; Wu, NN; Deng, YH; Wei, LY; Zeng, XP 2019); Magnetic nanoparticle-based therapies against cancer (Zhang, H.; Liu, XL; Zhang, YF; Gao, F.; Li, GL; He, Y.; Fan, HM 2018); Extraction of ibuprofen, phenol, bisphenol A, methyl-paraben, and propyl-parabens from blood (Yuvali, D.; Narin, I.; Soylak, M.; Yilmaz, E. 2020 | Abdolmohammad-Zadeh, H.; Zamani, A.; Shamsi, Z. 2020); neuromodulation and treatments for neurodegenerative diseases and psychiatric disorders (Owonubi, SJ; Aderibigbe, BA; Fasiku, VO; Mukwevho, E.; Sadiku, ER 2019) and many others that can be found in the scientific literature, see "Fe3O4-graphene oxide " O well " graphene oxide "" Fe3O4 " .
2. Magnetic nanocomposites of Fe3O4 with graphene oxide GO have been known at least since 2010, being cited as a possible biomarker for cancer detection (Swami, M. 2010). Its preparation method was reflected in the article by (Cao, LL; Yin, SM; Liang, YB; Zhu, JM; Fang, C.; Chen, ZC 2015), discovering its magnetic properties, ability to generate magnetic fields, its zeta potential and ability to overcome the blood-brain barrier. In addition to high stability over a wide pH range, they also indicate the ability to separate Fe3O4 from graphene oxide by applying an external magnetic field. These properties could explain the magnetic phenomenon of c0r0n @ v | rus vaccines, presumably composed of graphene oxide and magnetite, see study by (Campra, P. 2021).
3. Delving into the matter of aerogels, it is first necessary to define the concept. An airgel is an ultralight / porous material based on a gel, whose properties prevent it from collapsing, with a density slightly higher than that of air. Second, it can be stated that there are aerogels of graphene oxide and Fe3O4, as referred to in the study by (Kopuklu, BB; Tasdemir, A.; Gursel, SA; Yurum, A. 2021). In this case, the research adapts its use for the development of batteries with a performance superior to those of lithium-ion technology. The airgel of graphene oxide and Fe3O4 magnetite, are also developed as magnetic actuators, by coating with polydopamine (Scheibe, B.; Mrówczyński, R.; Michalak, N.; Załęski, K.; Matczak, M.;

Kempiński, M. ; Stobiecki, F. 2018). Polydopamine, also called PDA is a polymer obtained from the oxidation of dopamine,commonly used in "*various applications in biology, biomedicine, membranes, catalysis, materials and water purification* ", according to (Liebscher, J. 2019). This detail is very interesting since it is not only a chemical compound, it is also a fundamental neurotransmitter for the correct functioning of the human brain and specifically the central nervous system, the reward system (desire, pleasure, conditioning), addiction or socialization. It is necessary to remember that the absence of dopamine can cause illnesses and psychiatric disorders, for example depression (Moghaddam, B. 2002) and even neurodegenerative (David, R.; Koulibaly, M.; Benoit, M.; García, R.; Caci, H.; Darcourt, J.; Robert, P. 2008).

Reviews

1. Injection of graphene oxide aerosols / aerogels into the atmosphere is shown to be possible for the purpose of solar and climatological geoengineering. As expressed by the researchers in the article (Vukajlovic, J.; Wang, J.; Forbes, I.; Šiller, L. 2021), the injection of aerosols has been developing and experimenting for years, as shown in (Cao, L . 2019 | Zhao, L.; Yang, Y.; Cheng, W.; Ji, D.; Moore, JC 2017 | Dykema, JA; Keith, DW; Anderson, JG; Weisenstein, D. 2014 | Keith, D. ; Dykema, JA; Keutsch, FN 2017). With all these elements, it can be affirmed that the chemtrail phenomenon exists and can actually be equated to solar and climate geoengineering projects. According to the scientific information that has been analyzed, the release of graphene oxide or its derivatives in the form of an aerosol in the atmosphere is dangerous because: a) it is a source of pollution that affects the atmosphere, land, oceans and seas, agriculture, food, water sources, animals and people who end up breathing the polluted air. b) cause adverse effects and damage that can be fatal to people's health. c) alter the climate and cause dehydration effects in the atmosphere, ozone loss (Weisenstein, DK; Keith, DW; Dykema, JA 2015), and collateral effects that have not yet been published, because they are not known or do not want to be recognized on a scientific level.
2. The injection of aerosols as part of the solar geoengineering process could be being implemented worldwide, without having been consulted with the population, without the due debate and open scientific analysis that a matter as relevant as the effective alteration of the climate deserves. In this sense (Parker, A.; Irvine, PJ 2018) they explain that if the experimentation of solar geoengineering had begun, there would be no way to go back, because the consequences of the interruption would cause greater risks. In his summary he puts it this way: " *If solar geoengineering were to be implemented ... and then suddenly stopped, there would be a rapid and damaging rise in temperatures. This effect is often called a termination shock and is an influential concept*."The authors make it clear that depending on the methodology and the solar geoengineering model, as well as the number of countries involved, the effects of climate change can be mitigated, especially climate catastrophes. However, they do not analyze whether the solar geoengineering itself It may be the cause of these catastrophes. Other authors do affect the climatic problems and disparities it causes (Kravitz, B.; MacMartin, DG; Robock, A.; Rasch, PJ; Ricke, KL; Cole, JN; Yoon, JH 2014), even stating in their conclusions that "*There are many other effects that could be incorporated into solar geoengineering regional disparity assessments. These include other climatic effects, such as changes in the occurrence of extreme events ... However, the injection of stratospheric sulfate aerosol can increase ozone depletion and have other dynamic effects, which in turn could affect the local temperature and precipitation patterns, which differ from the partial*

shade geoengineering effects of the sun. We recognize that the health of land plants depends on more than precipitation and changes in temperature; Future assessments of hydrological changes due to geoengineering could also incorporate changes in evaporation, soil moisture, and runoff. ".

3. After all that has been explained and analyzed, there seems to be no doubt that it is experimenting with solar geoengineering, its models, application methods, prediction and forecasting, as well as the injection of aerosols into the atmosphere / stratosphere at some levels. that could vary between 7 and 18 km in height. In fact, according to the study by (Horton, JB; Keith, DW; Honegger, M. 2016) on the implications of the Paris agreement for CO2 reduction and solar geoengineering, " *SRM is a complement to emissions mitigation " and adds that "SRM (Solar Radiation Management) analysis dating back decades has consistently shown that it could lower surface temperatures, leading to great uncertainty about its ability to slow regional climate change, and its effects on changes in other important variables such as precipitation, sea level rise and extreme events* ". Regarding the possibilities to carry it out, it is stated that" *it seems that some forms of SRM could be implemented at a very low cost (less than 0.1 percent of world GDP) using existing technologies*", without getting to clarify or specify what these forms are. The article is of special relevance to understand the geopolitical framework in which solar geoengineering and the injection of graphene oxide aerosols into the atmosphere are framed from the year 2016, turning point from which it has been possible to reach an agreement (not disclosed) on the use of SRM technologies. The use of SRM (at least experimentally) is known from the articles published on its effects, see (Malik, A.; Nowack, PJ; Haigh, JD; Cao, L.; Atique, L.; Plancherel, Y. 2019 | Kim, DH; Shin, HJ; Chung, IU 2020)
4. In view of the possibilities and geopolitical aspects that climate control implies, solar geoengineering can be considered as a weapon, as suggested (Bunn, M. 2019). So, it seems clear that the fight against climate change, perhaps not what it seems, perhaps it is, rather, a veiled war between political blocs, scientific half-truths, disinformation and opacity to establish a world governance, not democratically elected and whose legitimacy is null. In fact, climate control raises disturbing questions. Who decides or imposes the climate in the world? Under what ethics do you want to change the climate? By what right is it intended to change the climate? With what consequences, at the cost of what, for what? (McLaren, DP 2018) are some pertinent questions that should be asked. Playing with what is not understood can often have unpredictable and almost always dire consequences. Finally, to complete the reflection, it is worth briefly commenting on the article by (Buck, H.; Geden, O.; Sugiyama, M.; Corry, O. 2020) in which he presents the response to the COVID-19 emergency as an example to implement solar geoengineering, in order to justify the injection of stratospheric aerosol. To do this, they cite five lessons that must be learned "*a) Narrow metrics seem easy to use, but they can create new problems. b) Global governance is fragmented or absent. c) Media technologies create new volatilities for science and politics. d) Politicians can act for the mere act of acting, or worse. e) Buy time only with a plan in hand . "These seem to be the mistakes that they do not expect to make in the next pandemic challenge, which according to the authors justify anticipatory research, expressed in the following words, which are cited below:" COVID-19 has been a stress test for interactions between science, media, and politics at both the national and global levels, and has revealed complex and potentially damaging dynamics in the links between these spheres.The response to the pandemic further highlights the need*

not only for proactive governance, but also proactive transdisciplinary investigation before an actual emergency . "There appears to be a link in the management of COVID-19 and climate pandemic emergencies? Will solar geoengineering be the next pandemic on global agendas?

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