

# Aquera Research



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**RESEARCH AQUERA RT VOX DATA  
FOR UPDATE 17/03/2021 –**

Article	Link	Description
<b>1. A potential treatment for COVID-19 based on modal characteristics and dynamic responses analysis of 2019-nCoV.</b> <i>Nonlinear Dyn</i> (2020). Yao, M., Wang, H. <a href="https://doi.org/10.1007/s11071-020-06019-1">https://doi.org/10.1007/s11071-020-06019-1</a>	<a href="https://link.springer.com/article/10.1007/s11071-020-06019-1#citeas">https://link.springer.com/article/10.1007/s11071-020-06019-1#citeas</a>	Then, the required destruction excitation amplitude is analyzed by FEA, as shown in Fig. 11, which is calculated as $1.041 \times 10^{-5}$ mm and the equivalent acceleration is 4.164 m/s <sup>2</sup> . Based on studies given by Glaister [10], this acceleration is safe for human body.
<b>2. Using Sound Therapy and Vibrational Medicine to Fight Against the Novel Coronavirus : COVID-19</b>	<a href="https://www.chinasona.org/Thiaoooba/coronavirus-sound-therapyvibrational-medicine.html">https://www.chinasona.org/Thiaoooba/coronavirus-sound-therapyvibrational-medicine.html</a>	"The most pleasant surprise came when I translated the frequency values I got for the potential COVID-19 drugs (Remdesivir, Chloroquine, Indinavir, Indinavir Hydrate, Lopinavir, and Favipiravir) into their octave equivalents within the quantized chromatic scale. I found that every one of these drug frequencies matched the frequency of the protease. The only exception was the frequency of Remdesivir, which matched the natural frequency of SARS-CoV-2, the COVID-19 virion."

	<p>Mechanism of Action of the EFV Model</p> <p>When a rhythmic stimulus of a given frequency is presented to the brain via a sensory organ, the rhythm of the stimulus is reproduced in the brain as electrical impulses. The brainwave pattern gradually synchronizes with the frequency of the stimulus. This is referred to as Frequency Following Response, FFR, and results in a phenomenon known as BRAINWAVE ENTRAINMENT.</p> <p>The brain’s electrical reaction to rhythmic stimulation gives rise to an electrical potential in the specific frequency of the stimulus. This electrical potential, known as EVOKED POTENTIAL or EVOKED RESPONSE, is propagated via the central nervous system, CNS, and the peripheral nervous system, PNS to every part of the human organism. The CNS is innately intelligent in maintaining vibrational homeostasis within the organism. Thus, it is capable of directing the frequency-specific electrical potential to the virus-infected cells – where it is needed. The frequency affinity between the incident electrical potential and the parasitic virus sets up the required RESONANCE vibration. And if sustained, the resonance vibration will result in the inactivation of the virus as earlier explained.</p>	
<p><b>3. Practical guidance on calculating resonant frequency at four levels of diagnosis and inactivation of COVID-19 coronavirus</b></p>	<p><a href="https://www.researchgate.net/publication/341372519_Practical_guidance_on_calculating_resonant_frequencies_at_four_levels_of_diagnosis_and_inactivation_of_COVID-19_coronavirus">https://www.researchgate.net/publication/341372519_Practical_guidance_on_calculating_resonant_frequencies_at_four_levels_of_diagnosis_and_inactivation_of_COVID-19_coronavirus</a></p>	<p>Remote diagnosis of coronavirus infection is possible either in a passive way, when electromagnetic waves are fixed on a strictly defined grid of resonant frequencies, or in an active way, by irradiating a person with electromagnetic or acoustic waves and analyzing the received response.</p>
<p><b>4. Whether Acoustic Vibrations can be used to damage / fracture the CORONA VIRUS (COVID-19) structure ?</b></p> <p>Dicussion - Jay Srivastava tute of Technology (ISM) Dhanbad</p>	<p><a href="https://www.researchgate.net/post/Whether_Acoustic_Vibrations_can_be_used_to_damage_fracture_the_CORONA_VIRUS_COVID-19_structure2">https://www.researchgate.net/post/Whether_Acoustic_Vibrations_can_be_used_to_damage_fracture_the_CORONA_VIRUS_COVID-19_structure2</a></p>	<p>See all the reference for others research</p>
<p><b>5. Theoretical Analysis of the</b></p>		

<p><b>Induction of Forced Resonance Mechanical Oscillations to Virus Particles by Microwave Irradiation: Prospects as an Anti-virus Modality</b></p> <p>Nikolaos Uzunoglu *</p> <p>Received: 24 April 2020 / Accepted: 25 April 2020</p>	<p><a href="https://www.preprints.org/manuscript/202004.0462/v1">https://www.preprints.org/manuscript/202004.0462/v1</a></p>	<p>Based on recent publications on virus physical and electronic properties of viruses, similar to Covid-19, computations show that the possibility of strong interactions to generate rupture or capsid of the viruses.</p>
<p><b>6. Efficient Structure Resonance Energy Transfer from Microwaves to Confined Acoustic Vibrations in Viruses.</b> Yang, SC., Lin, HC., Liu TM. <i>et al. Sci Rep</i> <b>5</b>, 18030 (2016). <a href="https://doi.org/10.1038/srep18030">https://doi.org/10.1038/srep18030</a></p>	<p><a href="https://www.nature.com/articles/srep18030">https://www.nature.com/articles/srep18030</a></p>	<p>In this article, we show that SRET (structure-resonant energy transfer) from microwave to virus can be efficient enough so that airborne virus was inactivated with reasonable microwave power density safe for the open public. Theoretically this SRET process is an efficient way to excite the vibrational mode of the whole virus structure due to a 100% energy conversion of a photon into a phonon of the same frequency, but the overall SRET efficiency is also related to the mechanical properties of the surrounding</p>
		<p>environment<sup>9</sup>, which influences the quality factor of the oscillator (virus). Our finding represents the first possible mechanism to inactivate airborne viruses without affecting the open public, since the required microwave power could be within the IEEE safety standard.</p>
<p><b>7. the challenge of virus sanitizing with microwaves,</b></p>		<p>Microwave ovens are easy to load and operate so that it is reasonable to consider them as a possibility for sanitizing items.</p>

<p><b>Journal of Microwave Power and Electromagnetic Energy,</b></p> <p>Antonio Aguilar-Garib (202 message: 54:4, 271-272, DOI: 10.1080/08327823.2020.1843986 To link to this article: <a href="https://doi.org/10.1080/08327823.20.1843986">https://doi.org/10.1080/08327823.20.1843986</a></p>	<p>Juan I) Editor's</p> <p><a href="https://www.tandfonline.com/doi/pdf/10.1080/08327823.2020.1843986?nedAccess=true">https://www.tandfonline.com/doi/pdf/10.1080/08327823.2020.1843986?nedAccess=true</a></p>	<p>There are advices, some without the proper context, dealing with several objects: medical implements, protective masks, sink sponges, socks, postal mail, packages, and books. There are also reports of experiments conducted only to see what happens because it is easy to place objects that fit into the oven cavity. Although one of the reasons that make the use of these ovens attractive is easiness, it is safeness the first issue to consider so that people using the apparatus does not get harmed.</p>
<p><b>8.Introducing COVID-19 as an Evolutionary Metabolic Infectious Disease (EMID)</b></p> <p>Acta Scientific Clinical Case Reports Volume 1 Issue 5 June 2020 Soroush Niknamian* Military Medicine Department, Liberty University, Virginia, Lynchburg, USA</p>	<p><a href="https://actascientific.com/ASCR/pdf/ASCR-01-0029.pdf">https://actascientific.com/ASCR/pdf/ASCR-01-0029.pdf</a></p>	<p>we should use low-frequency magnetic fields (LFMF) plus EMF which penetrate into deeper tissues, cells and mitochondria in order to reduce ROS and Inflammation. In order to destroy SARS-CoV-2 virus in environment and also in infected individuals, we should use ELF-EMF plus LFMF. We also have gone through many researches since 1920 and found if we emit the frequency as the same frequency of COVID-19, it can cause resonance in the virus and destroy it. So, we measured the SARS-CoV-2 frequency by Cyclotron and calculated the frequency of the virus that id is 30 KHz - 500 KHz. The differences in the frequencies is due to the size of the virus which is from 26 to 32 Kilobases.</p>
<p><b>9. Alexa, do I have COVID-19? Researchers are exploring ways</b></p>	<p><a href="https://www.nature.com/articles/d41586-020-02732-4">https://www.nature.com/articles/d41586-020-02732-4</a></p>	<p>Speaking requires the coordination of numerous anatomical structures and systems. The lungs send air through the vocal cords, which produce</p>

<p><b>to use people's voices to diagnose coronavirus infections, dementia, depression and much more.</b> NEWS FEATURE 30 MBER SEPTE 2020</p>		<p>sounds that are shaped by the tongue, lips and nasal cavities, among other structures. The brain, along with other parts of the nervous system, helps to regulate all these processes and determine the words someone is saying. A disease that affects any one of these systems might leave diagnostic clues in a person's speech.</p> <p>Machine learning has given scientists a way to detect aberrations, quickly and at scale. Researchers can now feed hundreds or thousands of voice samples into a computer to search for features that distinguish people with various medical conditions from those without them.</p>
<p><b>10. SARS-CoV-2 Detection From Voice</b> inkas, Yarden Karny, Aviad ri, Galia Barkai , Gideon Bachar :red Aharonson</p>	<p><a href="https://ieeexplore.ieee.org/stamp/stamp.jsp?arnumber=9205643">https://ieeexplore.ieee.org/stamp/stamp.jsp?arnumber=9205643</a></p>	<p>ARELIABLE detection of COVID19 through audio processing of speech, cough and breathing could facilitate a globally accessible screening. Automated audio processing of sounds associated with respiratory diseases traditionally employed feature extraction and classifiers, convolutional neural networks (CNN) and recurrent neural networks (RNN). Two recent reviews on breathing, cough and speech analysis reported detection or classification of sounds and symptomatic vocal attributes which were associated with respiratory diseases</p>
<p><b>11. Artificial intelligence model detects asymptomatic Covid-19 infections through cellphone-recorded coughs</b></p>	<p><a href="https://news.mit.edu/2020/covid-19cough-cellphone-detection-1029">https://news.mit.edu/2020/covid-19cough-cellphone-detection-1029</a></p>	<p>Asymptomatic people who are infected with Covid-19 exhibit, by definition, no discernible physical symptoms of the disease. They are thus less likely to seek out testing for the virus, and could unknowingly spread the infection to others. But it seems those who are asymptomatic may not be entirely free of changes wrought by the virus. MIT researchers have</p>

Results might provide a screening tool for people who are not suspected of having COVID-19. Jennifer Chu   MIT   Publication Date: October 2020	now found that people who are asymptomatic may differ from healthy individuals in the way that they cough. These differences are not decipherable to the human ear. But it turns out that they can be picked up by artificial intelligence. In a paper published recently in the IEEE Journal of Engineering in
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		Medicine and Biology, the team reports on an AI model that distinguishes asymptomatic people from healthy individuals through forced-cough recordings, which people voluntarily submitted through web browsers and devices such as cellphones and laptops.
<b>12. Effect of receptors on the resonant and transient harmonic vibrations of coronavirus</b> Elsevier - Journal of the Mechanics and Physics of Solids - Volume 10, May 2021, 104369	<a href="https://www.sciencedirect.com/science/article/pii/S0022509621000600?via=ihub">https://www.sciencedirect.com/science/article/pii/S0022509621000600?via=ihub</a>	It was shown that harmonic vibration at or below the lowest resonant modes can excite large amplitude vibration of spikes. The associated maximum principal strain in a spike can reach large values in a fraction of a millisecond. Implications for possible tearing off spikes from the shell are discussed. Another important result is that after a finite number of cycles, the shell buckles and collapses, developing internal contacts and folds with large curvatures and strains exceeding 10%. For the geometry and elastic properties of the SARS-CoV-2 virus, these effects are present in the range

		of frequencies close to the ones used for medical ultrasound diagnostics.
<b>13. Vibrations of coronavirus proteins may play a role in I infection</b> <b>Study suggests mechanical properties of spike proteins can predict infectivity and lethality of different coronaviruses.</b> David L. Chandler   MIT News (Publication Date: November 19, 2020)	<a href="https://news.mit.edu/2020/vibrations-coronavirus-proteins-1119">https://news.mit.edu/2020/vibrations-coronavirus-proteins-1119</a>	When someone struggles to open a lock with a key that doesn't quite seem to work, sometimes jiggling the key a bit will help. Now, new research from MIT suggests that coronaviruses, including the one that causes Covid-19, may use a similar method to trick cells into letting the viruses inside. The findings could be useful for determining how dangerous different strains or mutations of coronaviruses may be, and might point to a new approach for developing treatments.
<b>14. Scientists translate coronavirus spike protein into music, revealing more about its structure</b> Health & Wellbeing / Science By The Conversation Monday 6 April 2020	<a href="https://www.abc.net.au/news/health/2020-04-06/coronavirus-musicscientists-translate-spike-protein-melody/12124424">https://www.abc.net.au/news/health/2020-04-06/coronavirus-musicscientists-translate-spike-protein-melody/12124424</a>	An attempt to understand this new pathogen better, musician and engineer Markus Buehler and his colleagues at the Massachusetts Institute of Technology have assigned each protein and structural form a musical equivalent. The result, generated by artificial intelligence, is a surprisingly soothing musical score that Professor Buehler said revealed detail that microscopes couldn't.



<p><b>15. Ultrasound vibrations may kill coronavirus, MIT study shows</b></p> <p><b>Ultrasound might be able to damage the novel coronavirus in the same way an opera singer's voice can</b> shatter a wine glass.</p> <p>STEPHEN JOHNSON 16 March, 2021</p>	<p><a href="https://bigthink.com/ultrasoundcoronavirus?rebellitem=3#rebellitem3">https://bigthink.com/ultrasoundcoronavirus?rebellitem=3#rebellitem3</a></p>	<p>The researchers created various models of the novel coronavirus, and then used computer simulations to determine the frequencies at which acoustic vibrations might damage key parts of the virus, namely the shell and spikes. The results showed that ultrasound vibrations between 25 and 100 megahertz caused the shell and spikes to rupture almost immediately.</p>
<p><b>16. Biophysical Methods for Locating the Resonance Frequency of the Virus. Key Factor in the Fight Against Covid-19</b></p> <p>Contemporary Engineering Vol. 13, 2020, no. 1, 233 –</p> <p>-hikari.com doi.org/10.12988/ces.2020. 1</p> <p>245 HIKARI Ltd, 595</p>	<p><a href="http://www.mhikari.com/ces/ces2020/ces12020/p/sanglierCES1-2020-7.pdf">http://www.mhikari.com/ces/ces2020/ces12020/p/sanglierCES1-2020-7.pdf</a></p>	<p>Work has been underway for some years in the European project VIRUSCAN, whose objective is the design and construction of a universal virus and bacteria detector based on the technology described above. It is expected that the first prototype will be ready by the end of 2021 and that it can be applied in hospitals in the near future. Virus frequencies have been measured for many years by engineer André Simoneton and it shows that all viruses vibrate at low frequencies, below 5000 angstroms (1 angstrom = 0.0001 <math>\mu</math> m). The Covid-19 has a low vibration with a closed electromagnetic circuit structure, with a resonance frequency of approximately 5.5 Hz to 14.5 Hz. In the higher ranges it is not</p>

		active, and from the ranges of 25.5 Hz and above the virus dies.
<b>17. Researchers reveal how coronaviruses use protein vibrations to enter cells</b>	<a href="https://www.drugtargetreview.com/news/76795/researchers-reveal-how-coronaviruses-use-protein-vibrations-to-enter-cells/">https://www.drugtargetreview.com/news/76795/researchers-reveal-how-coronaviruses-use-protein-vibrations-to-enter-cells/</a>	The study was conducted at the Massachusetts Institute of Technology (MIT), US. Using atomistic simulations, the researchers looked at the mechanical aspects of how the coronavirus Spike (S) proteins move, change shape and vibrate. The results indicate that these vibrational motions could trick a locking mechanism on the cell's surface into letting the virus through the cell wall so it can hijack the cell's reproductive mechanisms.