



INFORMATION RESOURCES

1. The Positive Health Benefits of Negative Ions – Nutrition Review Magazine 2013
<https://nutritionreview.org/2013/04/positive-health-benefits-negative-ions/>
2. Exposure to Air Ions in Indoor Environments: Experimental Study with Healthy Adults, International Journal, Environmental Research & Public Health, 2015
<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4661648/>
3. The Basics of Air Ionization for High-Technology Manufacturing Applications, Compliance Engineering Magazine, 2006
http://www.bystat.com/pages/info/articles/Articles_ComplianceEngineering_sep06.pdf
4. Inactivation of airborne viruses using a packed bed non-thermal plasma reactor, Journal of Applied Physics, 2019
<https://iopscience.iop.org/article/10.1088/1361-6463/ab1466>
5. Negative Air Ions and Their Effects on Human Health & Air Quality Improvement, 2018 International Journal of Molecular Sciences, US National Library of Medicine, NIH
<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6213340/>
6. Evaluation of ionic air purifiers for reducing aerosol exposure in confined indoor spaces, Indoor Air Report, 2005
<https://www.ncbi.nlm.nih.gov/pubmed/15982270>
7. Bactericidal effects of plasma-generated cluster ions, Medical & Biological Engineering, 2005
<https://www.ncbi.nlm.nih.gov/pubmed/16594309>
8. Superoxide involvement in the bactericidal effects of negative air ions on *Staphylococcus albus*, Nature, 1979
<https://www.nature.com/articles/281400a0>
9. Effect of Negative Air Ions on the Potential for Bacterial Contamination of Plastic Medical Equipment, BMC Infectious Diseases Report, 2010
US National Library of Medicine, NIH
<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2873555/>
10. The Effect of Surface Charge, Negative and Bi-Polar Ions on the Deposition of Airborne Bacteria, Journal of Applied Microbiology, 2009
<https://sfamjournals.onlinelibrary.wiley.com/doi/full/10.1111/j.1365-2672.2008.04078.x>



11. Application of corona discharge-generated air ions for filtration of aerosolized virus and inactivation of filtered virus, Journal of Aerosol Science, 2017
<https://www.sciencedirect.com/science/article/pii/S0021850216302798>
NOTE: This article reports on the effectiveness of ions. However, it relies on an outdated method of ion generation which produces Ozone. Nevertheless, the article speaks for itself.
12. Use of Negative Air Ionization for Reducing Bacterial Pathogens and Spores on Stainless Steel Surfaces, USDA, Poultry Sciences Association, 2004
<https://naldc.nal.usda.gov/download/40442/PDF>
13. Numerical and experimental study on airborne disinfection by negative ions in air duct flow, Building & Environment Journal, 2018
<https://www.sciencedirect.com/science/article/pii/S0360132317305139>
14. On the Ionization of Air for Removal of Noxious Effluvia” (Air Ionization of Indoor Environments for Control of Volatile and Particulate Contaminants With Nonthermal Plasmas Generated by Dielectric-Barrier Discharge) IEE Transactions on Plasma Science, 2002
<http://www.aerisa.com/wp-content/uploads/2014/10/1-Daniels-On-the-Ionization-of-Air-for-Removal-of-Noxious-Effluvia.pdf>
15. Particle precipitation by bipolar corona discharge ion winds, Journal of Aerosol Science, 2018
<https://www.sciencedirect.com/science/article/pii/S002185021730472X>
NOTE: This article reports on the effectiveness of ions. However, it relies on an outdated method of ion generation which produces Ozone. Nevertheless, the article speaks for itself.
16. Unipolar ion emission enhances respiratory protection against fine and ultrafine particles, Journal of Aerosol Science 2004
<https://www.sciencedirect.com/science/article/pii/S0021850204000898>
17. Ionizing air affects influenza virus infectivity and prevents airborne-transmission, Nature Research, 2015 <https://www.ncbi.nlm.nih.gov/pubmed/26101102>
18. Air Cleaning Technologies; An Evidence-Based Analysis Ontario Health Technology Assessment Series, 2005
<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3382390/>



Other Resources

1. This site contains twenty five links to research papers on the subject of health benefits associated with ions: <https://www.teqoya.com/research-review-health-benefits-of-negative-ions/>
2. This document in French contains links to seventy research papers written between 1975 and 2010 regarding the health benefits of ions in air: https://www.teqoya.com/config/links/en/Effets_benefiques_de_l_ionisation_negative_de_l_air_Revue_de_70_publications_scientifiques_Mars_2011.pdf