

Abstract Submitted  
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**Integrated view on pandemic spread .** IGOR KAGANOVICH, Princeton Plasma Physics Laboratory, MIKHAIL SHNEIDER, Princeton University, ANDREI KHODAK, Princeton Plasma Physics Laboratory — We review all major components of pandemic spread: current epidemiology models, models of virus spread in air and through masks, issues with ventilation systems and possible amelioration strategies. The virus can remain active on surfaces without treatment for a very long time. The chemical treatment uses a lot of chemicals and contributes to significant deleterious environmental effects. To avoid this, we propose wider use of UVc radiation for deactivation of viruses. These systems are cheap, allow for fast processing of surfaces, but require strict safety protocol. Recent studies suggest that even soft UV from sunlight can deactivate the viruses indicating the need to gather outside and use fresh outside air in ventilation as opposed to closed systems typical for modern buildings.

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