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NANO AIR FILTER BLOCKS UV RAYS, LETS IN AIR AND LIGHT

 SPORT & FITNESS

Researchers from the National University of Singapore have developed a nanofiber solution that filters air better than current models without blocking light and air.

With data covering 3,000 cities in more than 100 countries, the World Health Organisation (WHO) says that more than 80 percent of people living in urban areas that monitor air pollution are exposed to quality levels that exceed WHO limits. While nanotechnology has previously been applied to the problem, earlier solutions are energy intensive to produce and require specialized equipment. Using a quick and easy to make nanofiber solution, researchers from the National University of Singapore's (NUS) Department of Materials Science and Engineering have found a way to turn non-woven mesh into high quality air filters.

The team used a chemical compound often found in dyes, phthalocyanine, to create layers of organic nanofibers that cling to the mesh. The nanofibers block dangerous ultraviolet light rays while allowing the rest of the spectrum in and remove up to 90 percent of polluting particles that are less than 2.5 microns in size. Because of the improved air flow and ability to allow natural light into a room, the new filters are ideal for doors and windows.

Future development of the technology includes adding antimicrobial qualities to the nano solution and creating do-it-yourself kits to allow people to make their own filters. Other ways air filtration is being incorporated into day-to-day living is through new material technology such as a **scarf** that blocks airborne flu germs and the use of **moss** in car design for sound proofing, fire protection and air cleaning. How else could the beneficial properties of natural resources be used while reducing the harmful aspects?

Image source: Pixabay

4th April 2017

Email: enquiry@nus.edu.sg

Website: nus.edu.sg