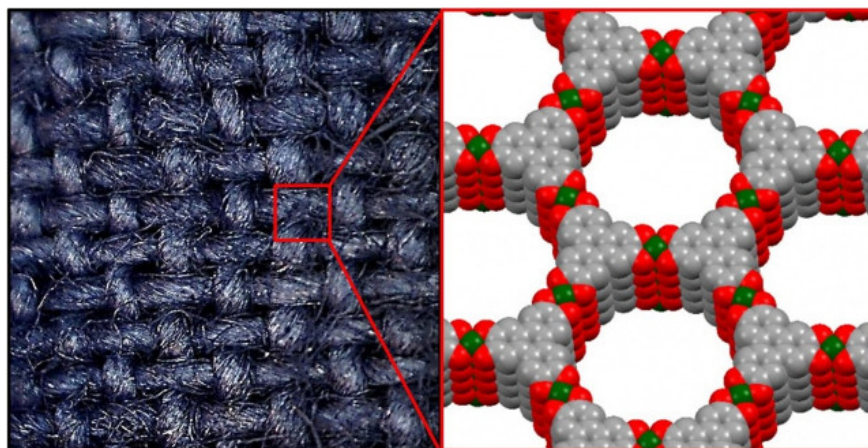


Smart fabrics can detect and protect against harmful gases

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Known as SOFT, this fabric material is flexible and conductive, non-porous and washable. According to Dartmouth team, fabric has the ability to detect gas in real time. It is expected that the material will be carried by the military and emergency security service personnel in conjunction with a haz-mat suit.



Katherine Mirica, assistant professor of chemistry at Dartmouth, said: "By adding this fabric to a protective suit, the sensor in the fabric can warn users if a chemical is entering. Dangerous materials'.

"In addition, this fabric can actively alert the user if there is a tear or defect in the fabric, or if the performance is reduced by any other cause."

This smart fabric works by using electronic sensors that support textile materials known as organic metal forms, also known as MOF.

In their study published in the Journal of the American Chemical Society, Dartmouth's team said the material could identify polluted nitrous oxide, as well as toxic hydrogen sulphide and other corrosive substances. Researchers believe that the fabric not only recognizes toxic gases, but also has the ability to capture and filter dangerous toxins.

Although this technology requires further development before it can be used in wearable systems, researchers believe that this potential fabrication method could be extended to systems. Another system, creating a new range of smart textile fabrics with miraculous features that are automatically adjusted and identified.

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