

Protecting crowds from bombings in public spaces

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Airport scanners can detect the explosive compounds that have been used in recent terrorist bombings, but these attacks didn't happen inside the protected spaces of terminals. They occurred in crowded public places where detection is a huge challenge. An article in *Chemical & Engineering News (C&EN)*, the weekly newsmagazine of the American Chemical Society, explores whether new portable detectors could be a solution.

Mitch Jacoby, a senior correspondent at *C&EN*, notes that an explosive called triacetone triperoxide, or TATP, was used in the March 22 bombing in Brussels and in [attacks](#) in London and Paris in 2005 and 2015, respectively. It was also the compound of choice of Richard Reid, the "shoe bomber," in 2001. Although it's highly unstable, the material is easy to prepare with accessible ingredients: hydrogen peroxide, acetone and mineral acid.

TATP is not hard to detect. Common security checkpoint devices, including ones based on X-ray computed tomography and ion mobility spectrometry, have been updated to flag TATP. Most of those instruments are not small and portable. But some manufacturers have recently made handheld devices that easily detect the explosive, and others are in the works. The remaining question, says one expert, is how to deploy them.

More information: Detecting Peroxide Explosives, [cen.acs.org/articles/94/i15/Ex ... ssels-isnt-hard.html](http://cen.acs.org/articles/94/i15/Ex...ssels-isnt-hard.html)

Provided by American Chemical Society

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