



Science for Diplomats

Chemical Forensics

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INCIDENT INVESTIGATION

WHAT – WHERE – WHO ?





INCIDENT OCCURS



FIRST REPPONSE

WORLD & NATION

Suspect Captured in Fatal Tokyo Subway Gas Attack

By T.R. Reid
THE WASHINGTON POST

TOKYO

Police reportedly had one suspect under guard Tuesday as they searched for a well-organized terrorist gang believed to be responsible for the release of poison gas on the Tokyo subway Monday, which left

Army and other terrorist groups resorted to occasional violence in pursuit of various political aims.

There was little sign of panic in Tokyo following Monday morning's attacks. The thousands of people who came gasping and retching out of the subways — many temporarily blinded by the stinging gas — lined up and waited quietly for

the affected stations.

U.S. government sources in Washington expressed some skepticism that the substance used in the attack was actually sarin. They said they understood that Japanese police had not completed testing needed to prove what chemical was used and that the data collected so far indicate the substance instead may have been a mixture of agricultural chemi-

Boston's Red-Light District Flickers

THE WASHINGTON POST

BOSTON

It is known officially as the Lower Washington Street Adult Entertainment District, but everyone calls it the Combat Zone.

It is the place where the commercial sex industry finds its public, and where Boston — a city once synonymous with sexual prudery — has carried out a successful containment strategy by creating one of the few formal red-light districts in North America.

Now the red light is flickering, about to be extinguished by a convergence of trends here. The story of the Combat Zone's brief heyday, long decline, and imminent fall is an instructive tale of sex, money, violence and urban development.

The area acquired its name before it became zoned for sex. Initially, it was a center for

area was torn... ment center, the honky-tonk businesses imp... During the late 1980s, the Zone's fate was sealed, according to Robert Campbell, the architecture critic for *The Boston Globe* and a student of urban development.

Rushdie Asks France for Help In Ending Iranian Death Threat

LOS ANGELES TIMES

PARIS

Salman Rushdie — the author whom Iran six years ago marked for death for his book *The Satanic Verses* — met France's highest politicians on Monday, winning assurances they would lead a European effort to persuade Iran to declare a "cease-fire" on him.

"I think we are at the beginning of a very serious step," Rushdie said after meeting with Prime Minister Edouard Balladur, Foreign Minister Alain Juppe and other top French officials.

"This is a situation that can be resolved, but what is needed is the will," the British writer told a well-guarded news conference at the French National Assembly. "And this visit has been an important step in creating the will to remove the deadlock."

After meeting with Rushdie, Juppe, the French foreign minister, said that France was prepared to bring the issue up again next month among European foreign ministers, which Juppe will chair.

"We are ready to take new initiatives in this direction," he said. He added that "new pressures" might be necessary, if Iran did not comply, though he declined to say whether those pressures might include sanctions or diplomatic isolation.

fatal — and coordinating the cry around the city probably required a careful team effort, a police spokesman said.

No one claimed responsibility for the attack, which one official called "a case virtually unparalleled in the history of crime in this country." Police said they were reviewing several other recent cases in which noxious fumes were released — including an incident last June in which seven people died from inhaling what appeared to be the same substance released in the subways on Monday.

The Tokyo *Shimbin* newspaper reported Tuesday that passengers at the Kodenmacho station in downtown Tokyo spotted and chased a man who had left a vial of vaporized liquid on the train shortly after 8 a.m. The suspect was overcome by the fumes and could not get away. He is now under guard in a hospital, the newspaper said, but was too ill to be questioned Monday.

The poison gas attack was a shock in a city that prides itself on civility, courtesy and the lowest crime rate of any big city on Earth.

hospital treatment... International Hospital downtown, beds lined the lobby and corridors as nurses washed the eyes of victims and gave them oxygen. Most victims left the hospital under their own power after a few hours. Police said 603 persons were hospitalized overnight.

Service was restored on all but one of the city's 12 subway lines by Monday afternoon, and officials said trains were as packed as usual during the evening rush hour. "Look, I've got to get home," said a woman on the Ginza subway line Monday night. "And it's probably worse if you go up (on the street) and take the bus."

Since the first day of spring is a national holiday in Japan, Tuesday morning was calm and quiet on the subways, with all lines running and all stations open.

In contrast to the delays and confusion that marked the government's response to the disastrous Kobe earthquake in January, rescue and relief efforts Monday seemed to be timely and adequate. Subway lines were shut within minutes after

relatively... ing to chemists and other experts.

Other than the report that a suspect was under guard, police said almost nothing about their investigation, but other media reports indicated that there were several witnesses who saw unusual actions on the subways Monday morning.

At Nakameguro station, southwest of the city center on the Hibiya subway line, witnesses told police, a man about 40 years old jumped on the train just before 8 a.m. When he got off at Ebisu, the next stop, he left behind on the floor a plastic lunch box wrapped in newspaper. Within eight minutes, or three more stops, a sharp odor coming from the package forced everybody off the train.

At a train on the Marunouchi line, a wad of wet newspaper on the floor began giving off noxious fumes. A similar wad of papers was found inside a plastic trash bag on a different train.

Government and private experts said these reports suggested that the perpetrators may have brought sealed bottles of sarin onto the trains, poured the clear, lethal liquid onto newspaper, then left the train.

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New York Times
brightening, waxy, skin
dryness, itching, rash
Tinted cream, 1.7 oz. (50 g)
MSRP \$14.95, list \$11.95

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Security Tight
— Rider Seen
as Suspect

By MICHAEL D. KRETT
TOKYO, March 21 — A
30-year-old man was
detained Monday and
charged with the intentional
release of the toxic gas
suspect in the Tokyo subway
attack.

Police said the man
was seen in the subway
station at the time of the
attack. He was taken to
the police station and
charged with the crime.

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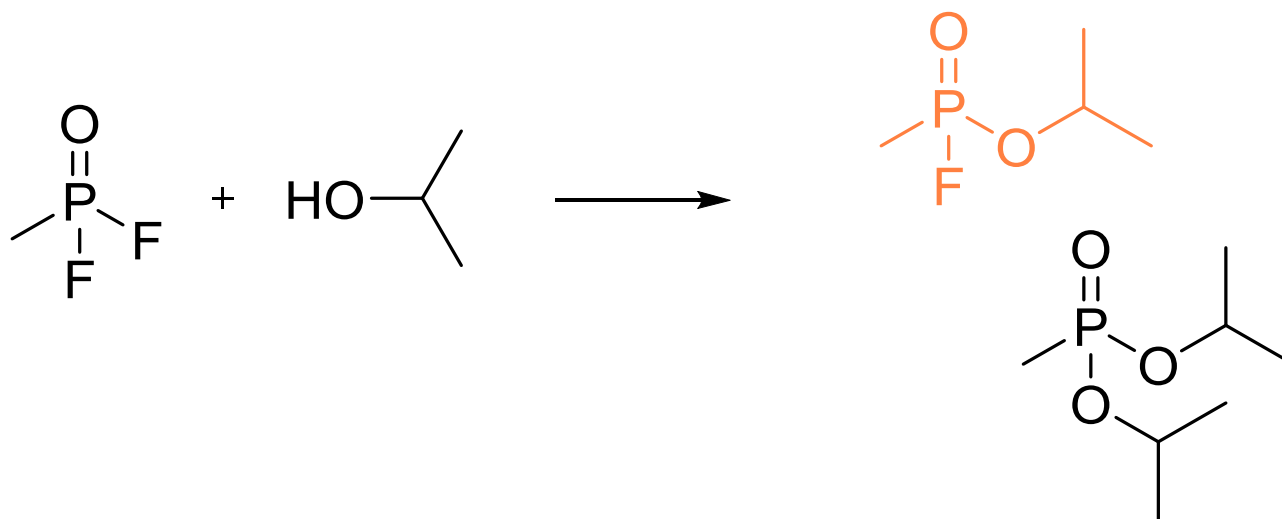
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Synthesis route

- Starting materials
- Impurities



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**SYRIAN ARAB
REPUBLIC
2013**



INTERVIEWS AND BIOMEDICAL SAMPLING



ENVIRONMENTAL SAMPLING



**CHAIN OF
CUSTODY!**



OPCW Fact Finding Missions

- Number of FFM?
- Collection of evidence
 - Sampling
 - Interviews
 - Photos, video
- On-site detectors, on-site analysis
- OPCW designated laboratory network
 - Chain-of custody
 - Environmental samples
 - Biomedical samples



Workshop: Chemical Forensics

Capabilities across the field and potential applications in the CWC Implementation

- Chemical weapons
 - An OPCW perspective
- Law enforcement
 - illegal drug attribution analysis
- Biomedical samples
 - post-mortem analysis
- Route of synthesis and other attribution analysis
- Chemical forensics in other fields: Art, Archeology
- Discussions
- Report

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12



Workshop: Chemical Forensics

Capabilities across the field and potential applications in the CWC Implementation

- Questions
 - How can chemical forensics be combined with investigative chemical analysis?
 - Limitations and required reference materials?
 - Methodologies with potential for use in CW applications?
 - Normal vs. highly toxic samples?



Workshop: Chemical Forensics: Capabilities across the field and potential applications in the CWC Implementation

- SAB and experts
- Helsinki, Finland
- June 2016 (Dates TBC)
- Preparation for the SAB report for the Review Congress in 2017



Next
2016?
2017?

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