

## Supplementary data

# **Development of a Gas-Cylinder-Free Plasma Desorption/Ionization System for On-Site Detection of Chemical Warfare Agents**

Takahiro Iwai,<sup>a</sup> Ken Kakegawa,<sup>b</sup> Mari Aida,<sup>b</sup> Hisayuki Nagashima,<sup>a</sup> Tomoki Nagoya,<sup>a</sup>  
Mieko Kanamori-Kataoka,<sup>a</sup> Hidekazu Miyahara,<sup>b</sup> Yasuo Seto,<sup>\*a</sup> and Akitoshi Okino<sup>\*b</sup>

<sup>a</sup> National Research Institute of Police Science, 6-3-1, Kashiwanoha, Kashiwa, Chiba, JAPAN.

<sup>b</sup> Department of Energy Sciences, Tokyo Institute of Technology, 4259 Nagatsuta, Midori-ku,  
Yokohama, Kanagawa, JAPAN.

\*To whom correspondence should be addressed

Yasuo Seto, Tel: +81-4-7135-8001, Fax: +81-4-7133-9173, e-mail: seto@nrips.go.jp

Akitoshi Okino, Tel: +81-45-924-5689, Fax: +81-45-924-5689, e-mail: aokino@es.titech.ac.jp

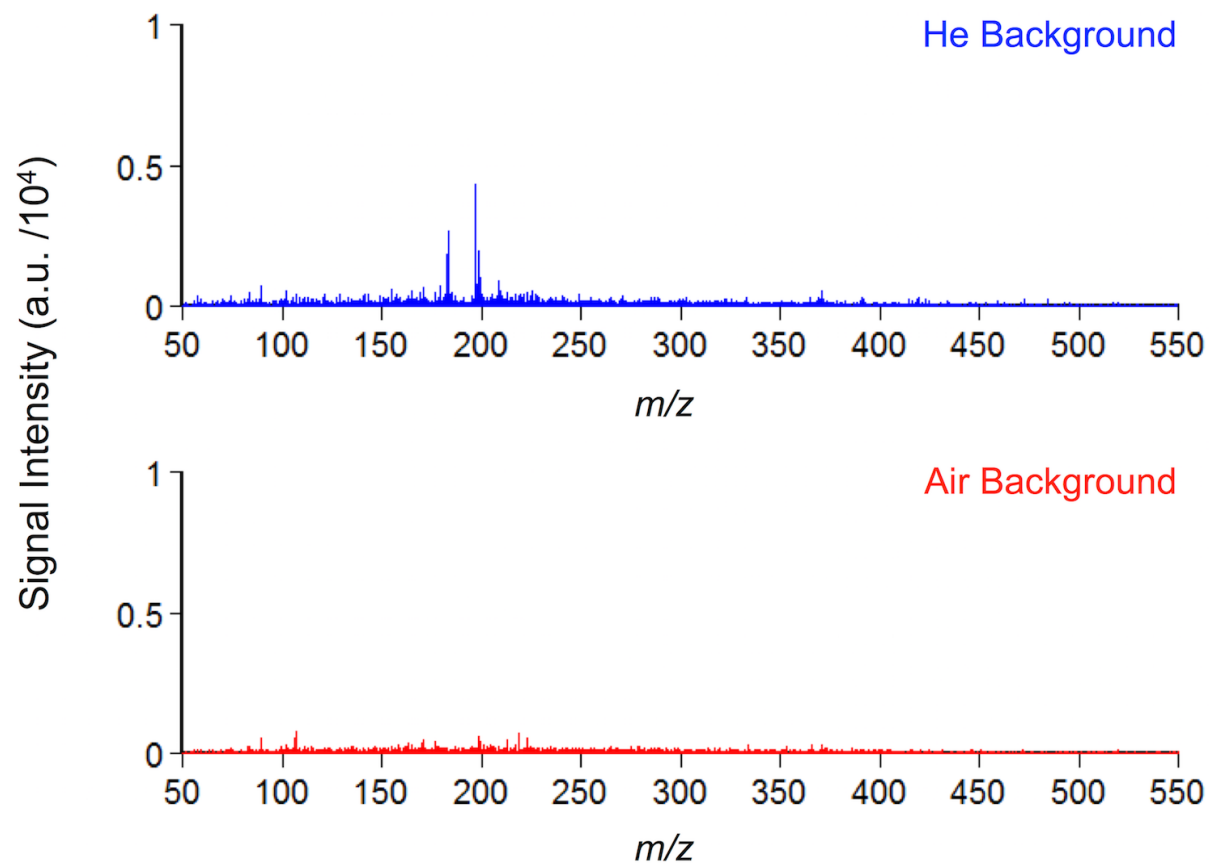


Fig. S-1. Background mass spectra of helium and air plasmas. The gas was directly irradiated to the edge of Teflon rod in the absence of a sample. Auto-instrumental tuning was set to the target ion of VX ( $m/z = 268$ ).

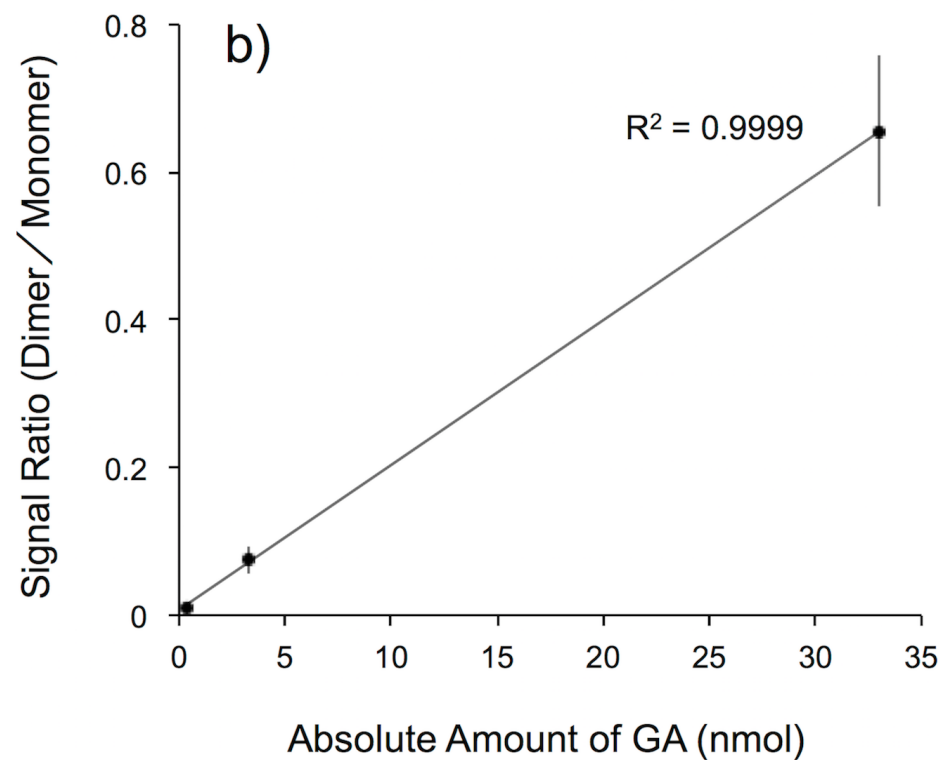
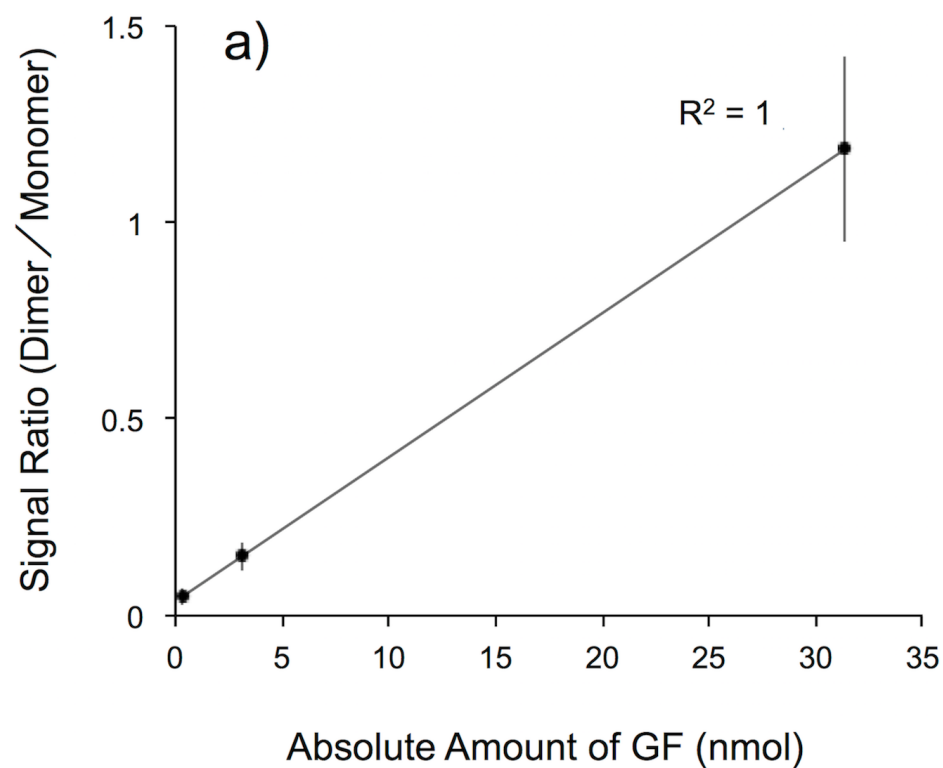


Fig. S-2. The relationship between the absolute amount of the CWA and the dimer/monomer signal ratio for (a) GF and (b) GA.