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(54) **SYSTEM AND METHOD FOR TRACE DETECTION USING DUAL IONIZATION SOURCES**

(57) A dual source ionizer includes a first ionization source and a second ionization source. The first ionization source is configured to generate a first electric field. The first electric field has a first field strength that is insufficient to form NO_x^- ions. The second ionization source is configured to generate a second electric field. The second electric field has a second field strength that is sufficient to form ozone and the NO_x^- ions.

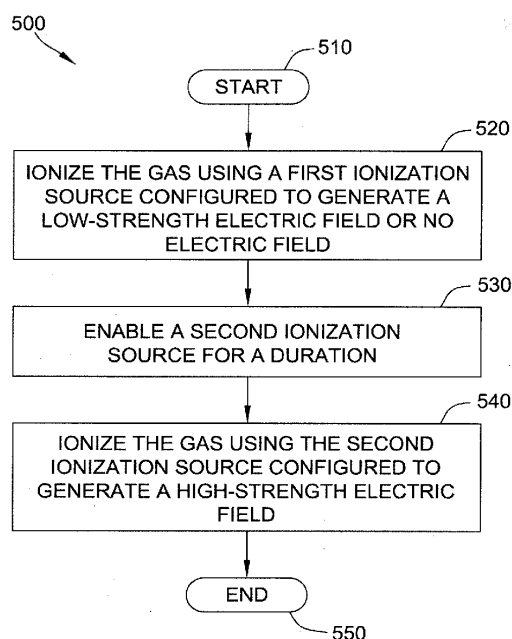


FIG. 5

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