

The logo for Stragitech Labs is a stylized, four-pointed star or cross shape with rounded ends, rendered in a light gray color. It is positioned behind the main title text.

STRAGITECH LABS

58TH ANNUAL
FUZE CONFERENCE

CURRENT LANDSCAPE:

ADVANCED WEAPONRY PROVIDED TO ASSIST
REGULAR AND IRREGULAR FOREIGN SECURITY
FORCES CARRIES A DANGER THAT THE WEAPONS
ARE TRANSFERRED TO OUR ENEMIES

“We must be the great arsenal of democracy.”
- Franklin Delano Roosevelt (1940)

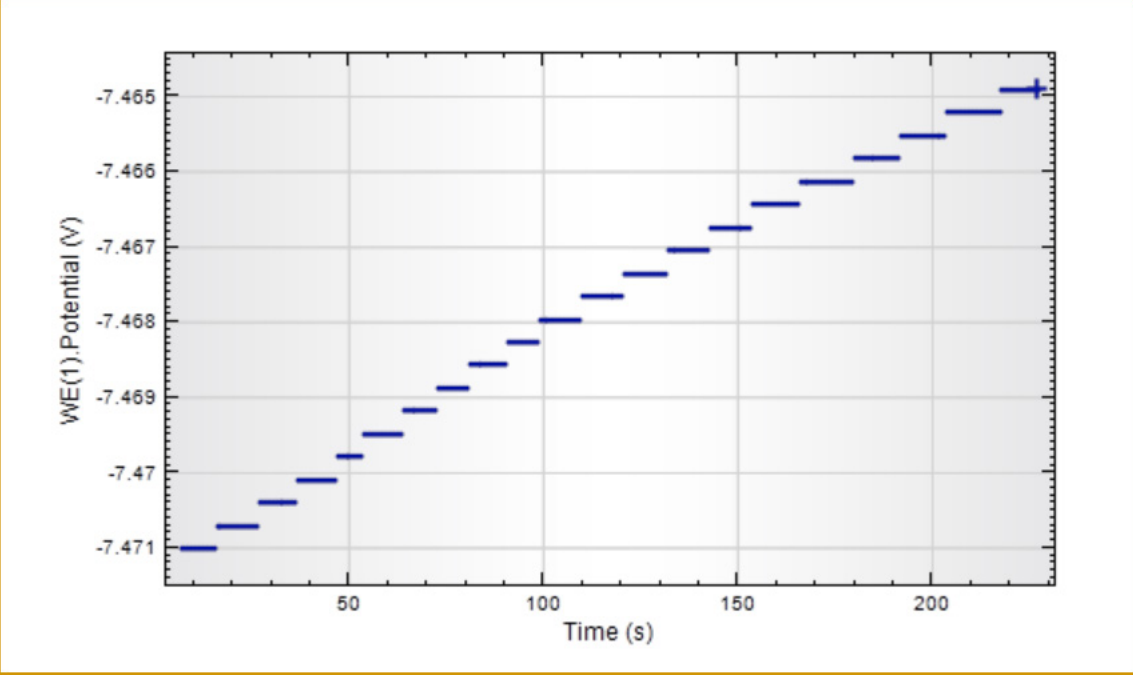
STRATEGIC CHALLENGES

- SOLD ON THE BLACK MARKET
- CAPTURED FROM OUR ALLIES
- POST-CONFLICT STOCKS

OUR SOLUTION

- SELF-DEACTIVATE / NEUTRALIZE FUZES
- WARHEAD CHEMICAL DEACTIVATION

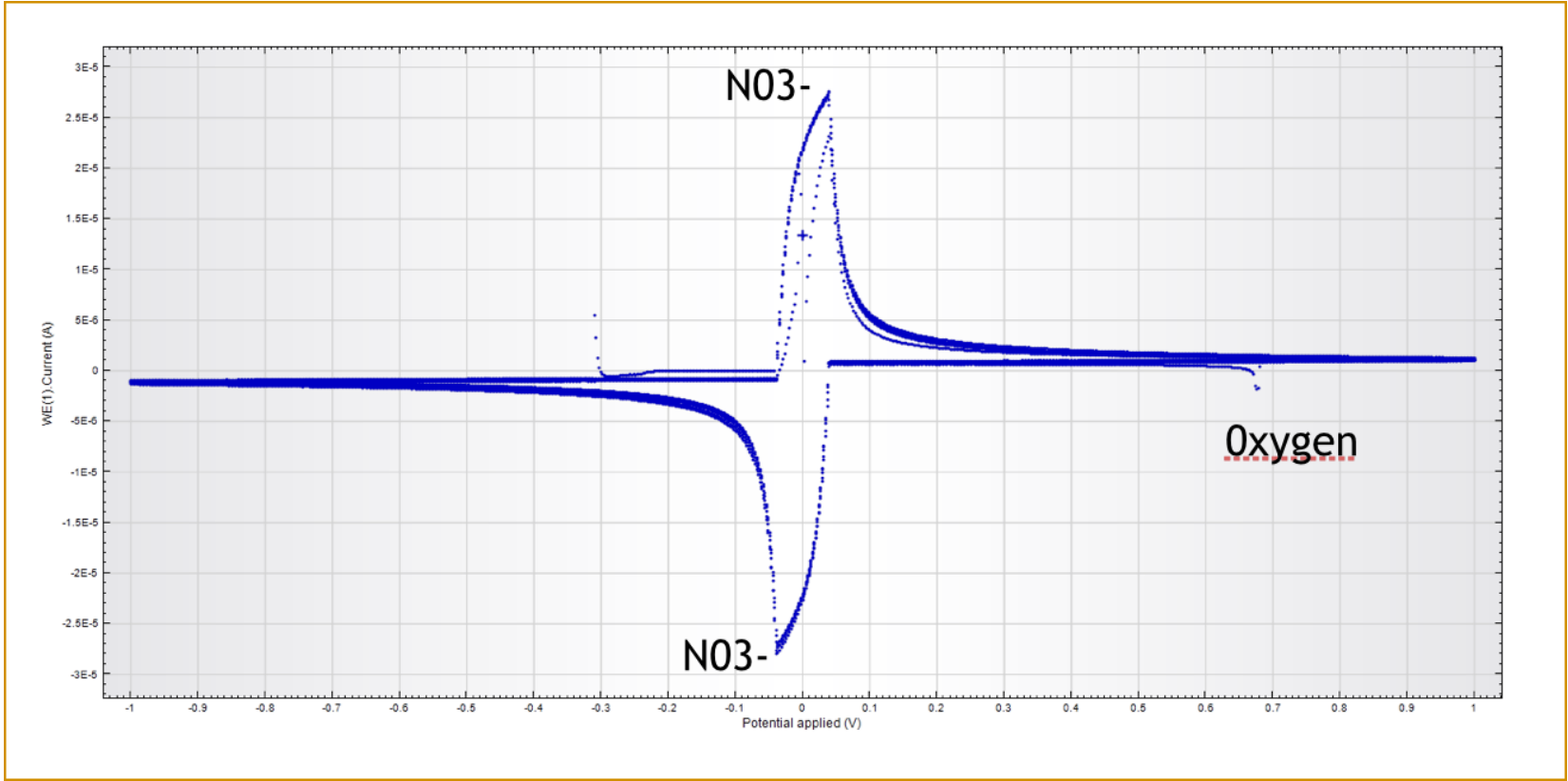
SELF-DEACTIVATION FUZE MECHANISM



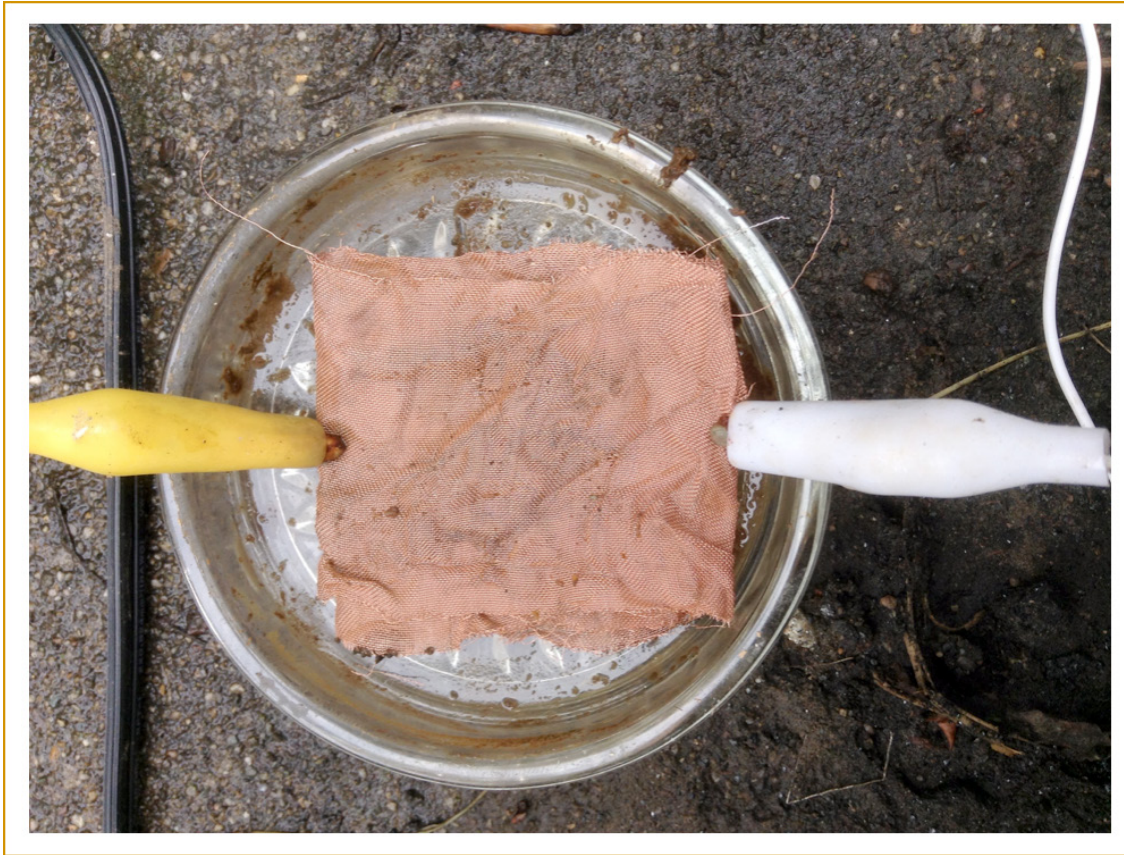
CHEMICAL CONVERSION OF HE

- INEXPENSIVE COMPONENTS WITH LOW ENERGY
- CONTROLLED TRANSFORMATION:
HIGH EXPLOSIVE → LOW EXPLOSIVE → INERT COMPOUNDS
- EXPERIMENTATION PROXY POTASSIUM NITRATE
$$\text{CuCl}_2(\text{s}) + 2\text{KNO}_3(\text{s}) \rightarrow 2\text{KCl}(\text{s}) + \text{Cu}(\text{NO}_3)_2(\text{s})$$

KN03 CYCLIC VOLTAMETRY



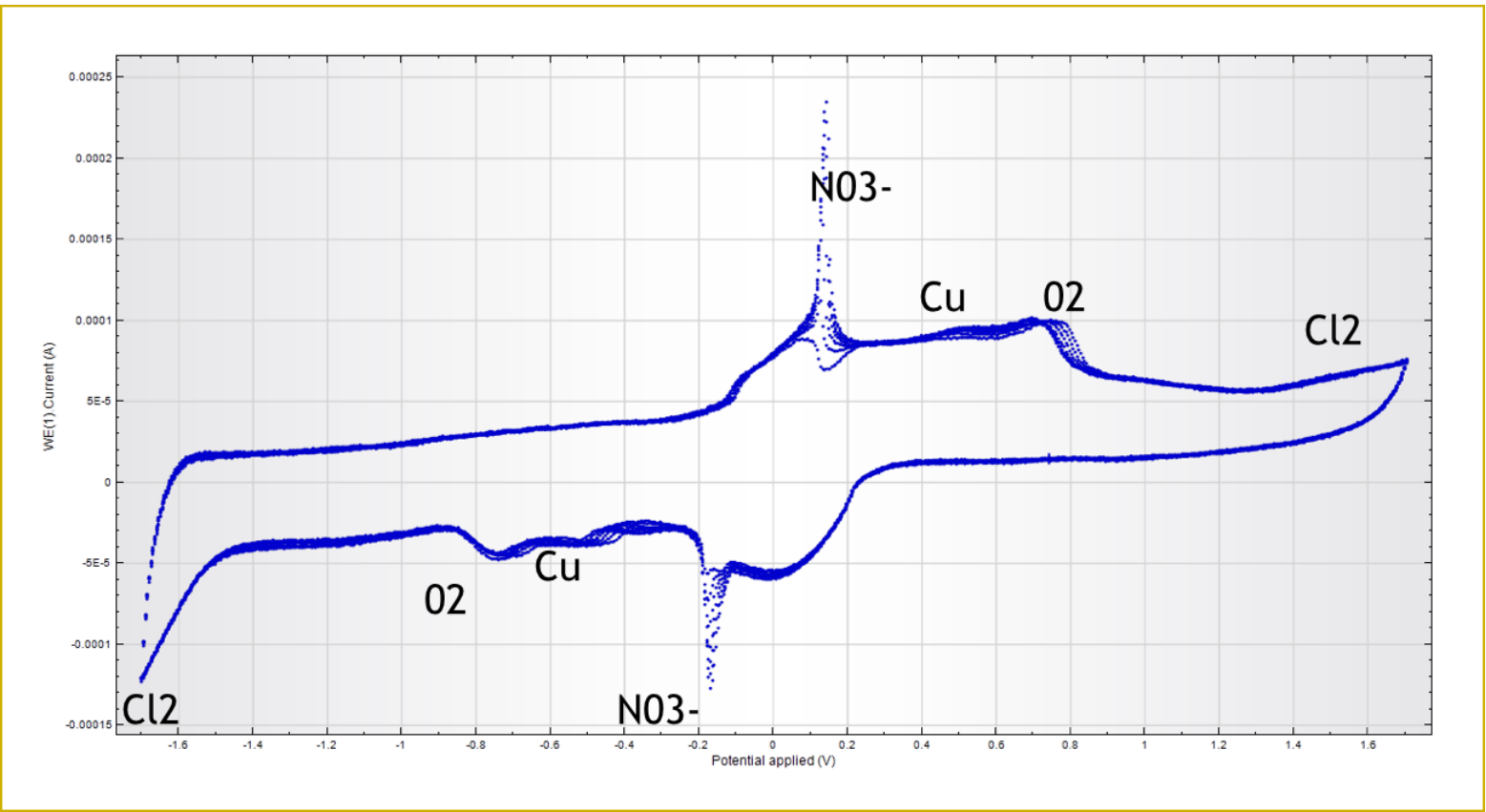
DEACTIVATOR WITH KN03 EMBEDDED



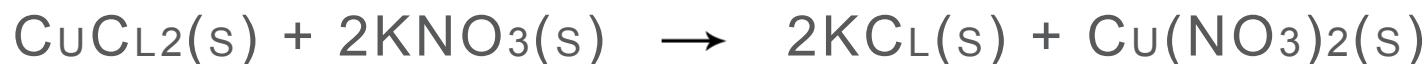
DEACTIVATED KN03 AFTER 1 HOUR



CYCLIC VOLTAMMETRY AFTER 1 HOUR



THERMODYNAMICS OF DEACTIVATION



COMPOUND: STANDARD ENTHALPY OF FORMATION (KJ/MOL)

$\text{KNO}_3 (\text{S})$ -494.6

$\text{KCL} (\text{S})$ -436.68

$\text{CuCl}_2 (\text{S})$ -206

$\text{Cu}(\text{NO}_3)_2 (\text{S})$ -302

$$-206 + 2*(-494.6) = -1195.2$$

$$2*(-436.68) + -302 = -1175.36$$

ENTHALPY OF REACTION: +19.84 kJ/MOL

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