

## **2. Slow match**

**Reviewer:**

Team Romania

**Opponent:**

Team Russia - Element

**Reporter:**

Team Greece - Anatolia

# Task

A **cord** in which the **flame** front propagates with a **constant low speed** has been important to ignite cannons. **Produce such cords and investigate their burn rates and other properties.**

Cords

- Theoretical information

Burning cords and burn rates

- Experimental
- Other properties

# Reporter summary



## Strong points

- Chemical explanation
- Clear setup
- Well understanding of the theoretical part
- Good explanation of the experimental part
- Clear structure of the presentation(theory, experiments,conclusions)
- Visual aids and graphs

## Weak points

- History of the slow match is not relevant
- $\text{NaNO}_3$  does not decompose at temperature
- The experiments were not done in a controlled manner
- Too many aspects were excluded from the explanations
- Variation of the cords (used only 1)
- Climate parameters not presented (humidity, temperature)

# Opponent summary



## Strong points

- History not relevant
- Observation of unpresent errors of the reporter
- Structure of the cord missing
- Relevant questions

## Weak points

- The reporter had hypotheses
- Different types of cords were mentioned

# Clashes during the fight

- O: Ropes with vinegar burn faster?  
R: Yes, because of the pH.  
We: agree with the reporter
- O: Ph real effect on burning speed ?  
R: Yes, higher PH => burns slower (more water resistance)  
We: Agree with the reporter.
- O: How did you impregnate and soak the cords? Not uniform process.  
R: Put it in solution and let dry.  
We: Agree with opponent
- O: Why the cord with the bigger impregnation time burns slower?  
R: 1 hour is the ideal absorption time - not explained why  
We: impartial