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Progress Report of the first year

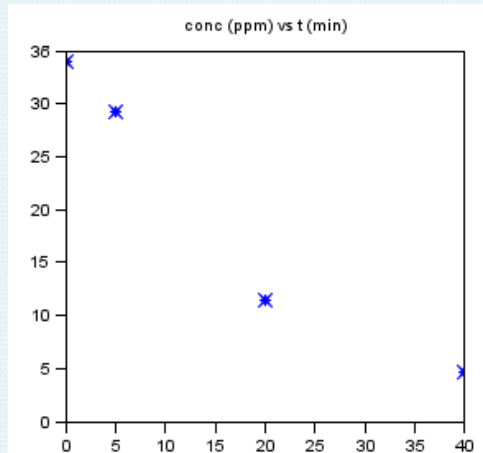
The colorimetric method is an ideal way to measure the silica concentration in water. However, the presence of other components could interfere during the process. For this reason the removing of sulfur has become the main goal of this first year.



The solution must develop a yellow color as we can see at the picture. Nonetheless the presence of sulfur generates a green color that destroys the samples.

POSSIBLE SOLUTIONS

1) Oxidization by air



It takes too much time

2) Addition of oxidants

The reaction takes less time with a strong oxidant (hydrogen peroxide) to remove sulfide hydrogen from the solution.

Problem: Generation of turbidity that interferes in the spectrophotometer.

3) Change of pH

By decreasing pH, the $\text{HS}^-(\text{aq})$ is converted into $\text{H}_2\text{S}(\text{g})$ to be removed from the solution.

