CALIFORNIA SCIENCE & ENGINEERING FAIR
2019 PROJECT SUMMARY

Name(s)

David Morales-Zapien

Project Number

S0614

Project Title

Are Expiration Dates Real?

Abstract

Objectives

I wanted to determine the extent to which the expiration date of iron pills effected the iron content of the pills.

Methods

I performed a redox titration using potassium permanganate and sulfuric acid to determine the iron level in 5 different iron pills each with different expiration dates.

Results

The pills with the earliest expiration date had the least amount of iron but they were still legally potent. To be legally potent they had to have 90% of the original potency.

Conclusions

I concluded that the expiration date does not signal a point at which the medication is unsafe to take because the expired pill still had 90% of its original potency. My project can educate and ultimately save consumers lots of money all around the world.

Summary Statement

Do expiration date really signal a point at which medications are unsafe to use

Help Received

Dr. Sidhu