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## Analysis of Triton CG 110 Foaming Characteristics for use as a potential Fire Suppressant

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# Analysis of Triton CG 110 Foaming Characteristics for use as a potential Fire Suppressant

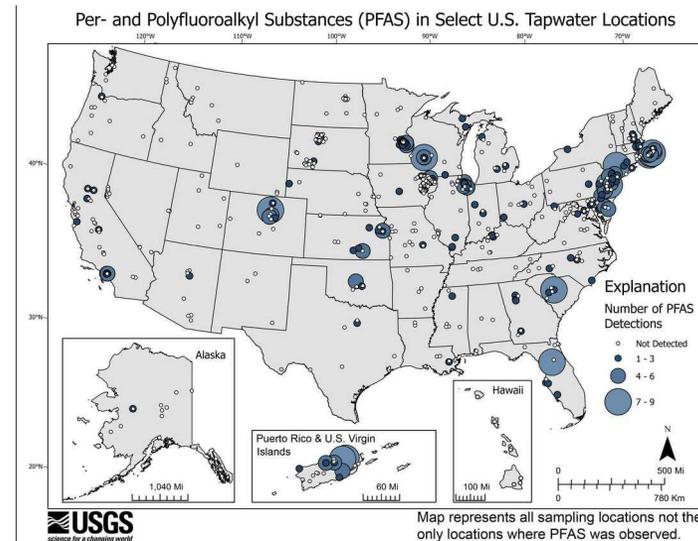
Presented By: Addison Cobb  
Faculty Mentor: Dr. Jeremy Cho

## Background:



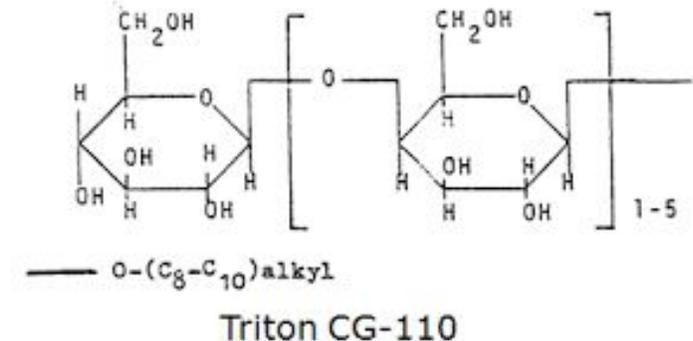
Per-FluoroAlkyls (PFAs) are incredibly stable molecules which do not biodegrade. These chemicals have been linked with a series of health issues and environmental problems.

## Problem



PFAs have been identified in most drinking water supplies in the United States. Large Amounts of this is due to Aqueous Fire-Fighting Foams (AFFF's), which contain PFAs, seeping into the groundwater supply.

## Solution



While little can be done about PFAs currently in groundwater supplies, replacing PFA-based AFFFs with newer Eco-AFFFs can halt AFFF contamination, and maintain firefighting suppression.

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## Desired Characteristics:

- Biodegradable / Natural Foaming Agents
- High Expansion Ratio 1:200+
- High Diffusivity Coefficient
- Low Dynamic Surface Tension
- Low Foam Degradation Lifetime
- Highly Stable Foam
- Non-flammable Substance
- No Aquatic Toxicity
- Sensible Cost
- Dense Concentrate
- Highly Compatible Molecules

## Triton CG-110 Characteristics:

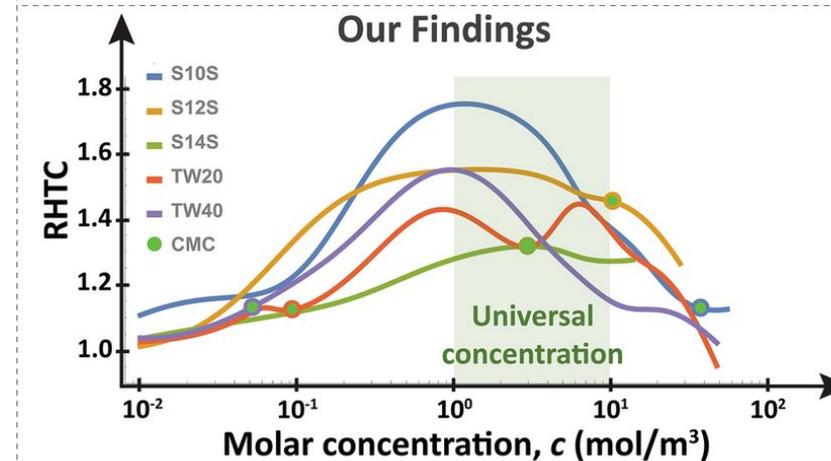
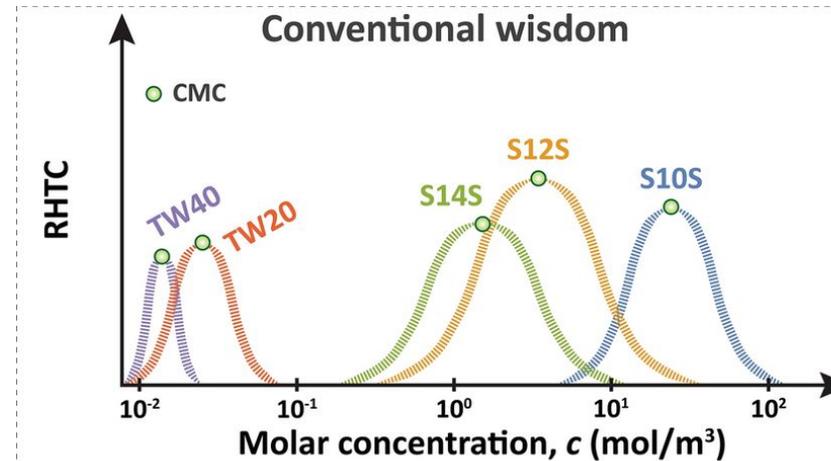
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## Methods & Applications:

- Dynamic Surface Tension
- Turbidity
- Viscosity
- Surface Lifetime
- Soil Penetration
- Fire Suppression: Volume vs Avg Time



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