11-13-75 Attempts at Extraction of Aflatoxin Adduct

Purpose: The chromatographic behavior of the adduct indicates it may by a lipophilic yet somewhat polar molecule. I will try water saturated ethylacetate and butanol to remove it from the aqueous phase

Procedure:

- Thaw sample 11-3-1 (65°C hydrolysis sample) Observation- the sample looked creamy - but it appeared that the creamyness was caused by small droplets of $CHCl_3$ forming micelles in the aqueous phase. Significant but not total clearing occurred in time.
- add 0.5 ml water - saturated ethyl acetate Observation: two clear phases - implies that the problem was an emulsion.
- draw up and quickly release both phases for a minute or so - got what appeared to be good phase co-dispersion.
- let the phases separate and remove the bottom (~~ph~~ aqueous) phase after sampling

Samples: 1. 99. = 20µl aqueous phase
2. etac = 50µl organic (top) phase)
Count in 10 ml aquasol.

- take the aqueous phase and add 0.5 ml butanol - this is also lighter than the aqueous phase

Samples: 1. 99. BuOH extract. = 20µl
2. BuOH phase = 50µl

Student's Name | Date

Subject | Instructor's Name

1-13-75 Adduct Extraction : Results

1. Ethyl Acetate Extraction:
   aqueous phase: 376,813 counts/10 min/20 μl 1884 cpm/μl
   organic phase: 24,207 counts/10min/50 μl 48.4 cpm/μl

2. Subsequent Butanol Extraction:
   aqueous phase : 206,826 counts/10min/20 μl 1034 $\frac{cpm}{\mu l}$
   organic phase : 281,970 counts/10 min/50 μl 564 $\frac{cpm}{\mu l}$