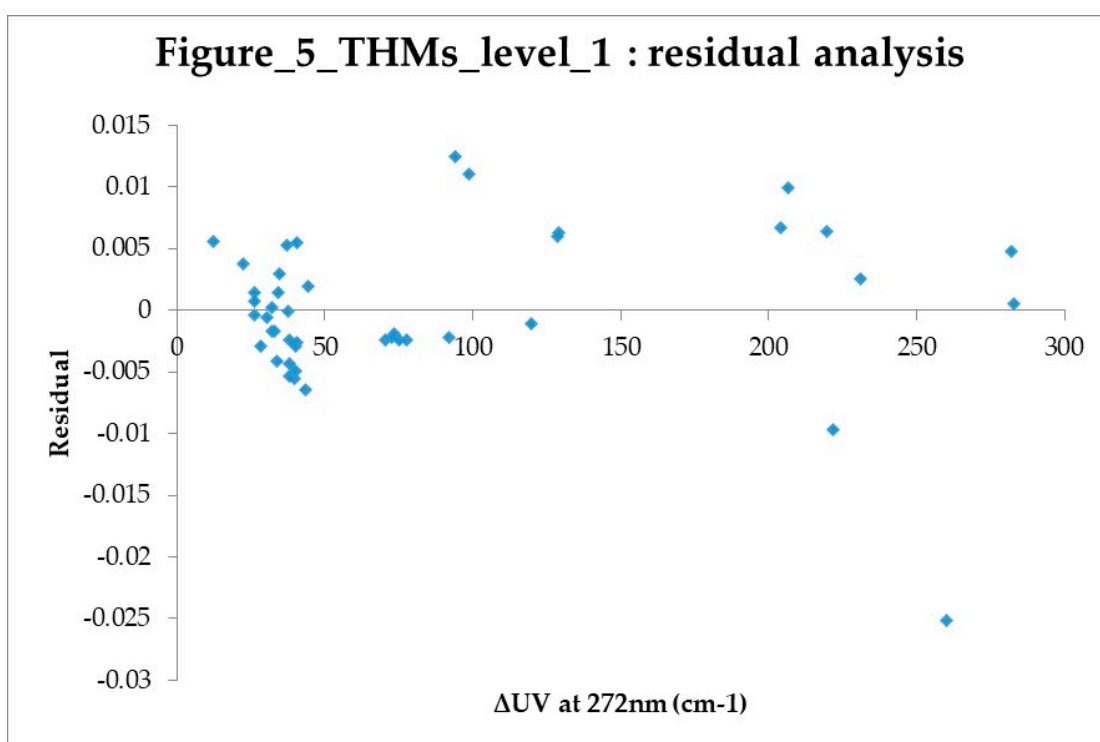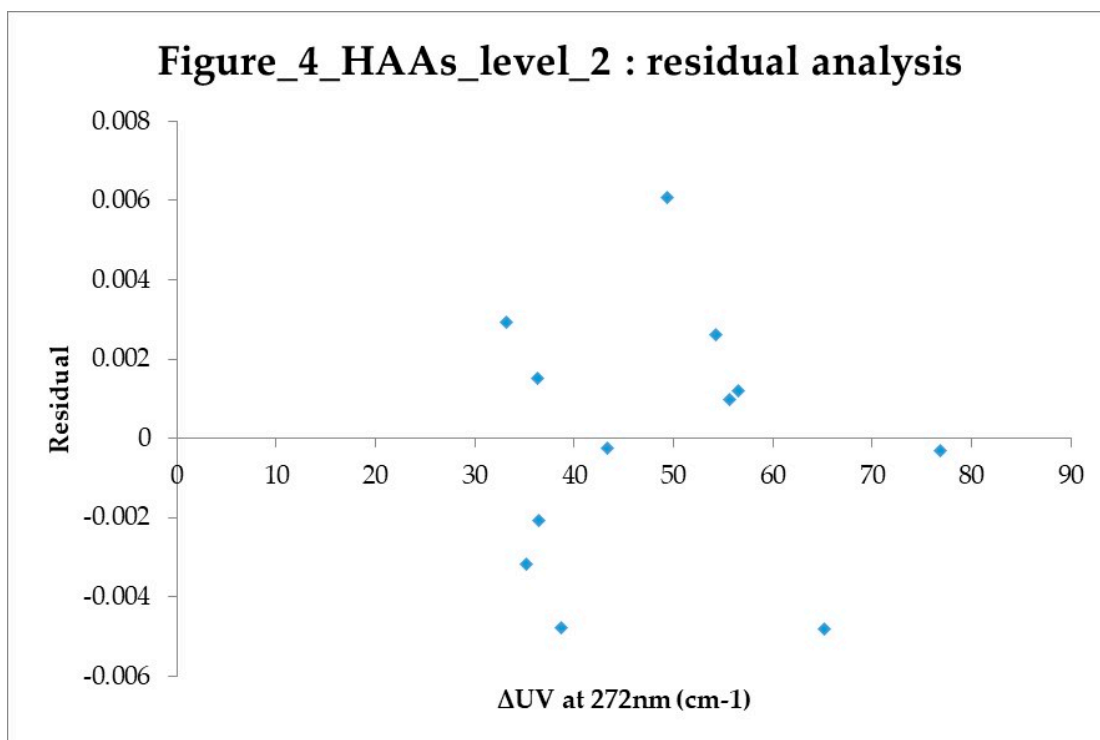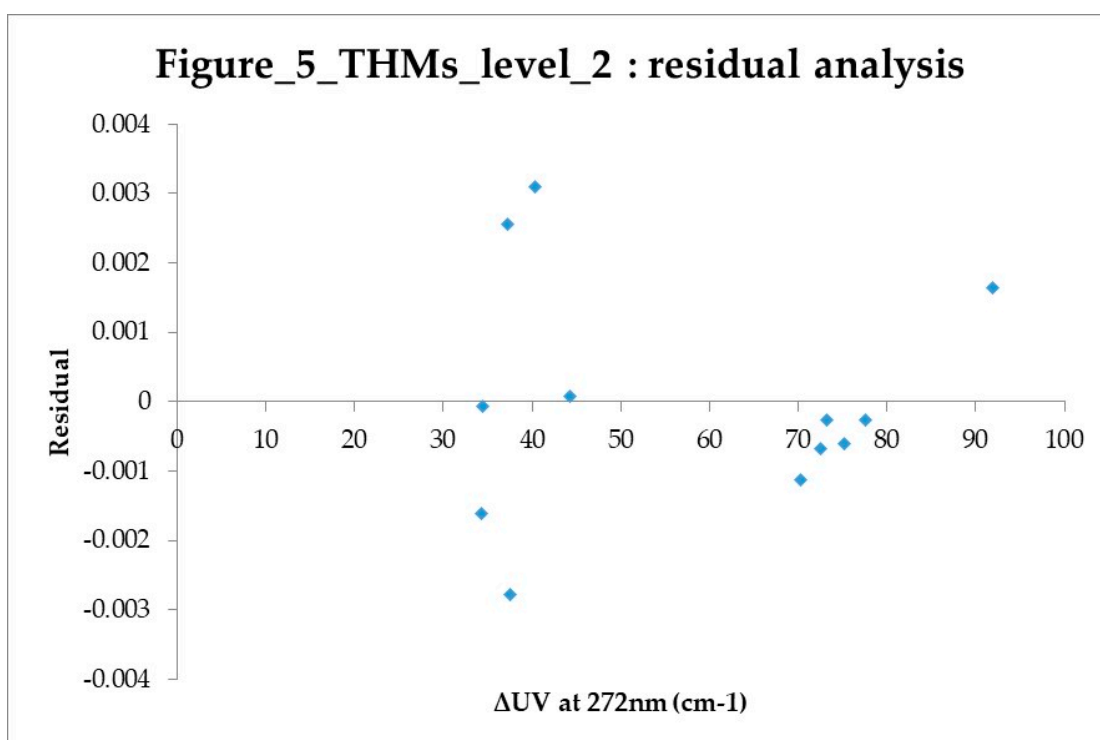**Supplementary Figure S1:** Residual analysis of HAAs_level_1 linear regression

Supplementary Figure S2: Residual analysis of THMs_level_1 linear regression

Supplementary Figure S3: Residual analysis of HAAs_level_2 linear regression

Supplementary Figure S4: Residual analysis of THMs_level_2 linear regression