

#Jenny



Finally I get this ebook, thanks for all these I can get now!

#Rio



Cool! I'am really happy

#Markus Jensen



I did not think that this would work, my best friend showed me this website, and it does! I get my most wanted eBook

#Hun Tsu



wtf this great ebook for free?!

#Che Salsa

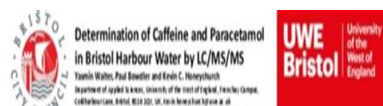


My friends are so mad that they do not know how I have all the high quality ebook which they do not!

#Diego Butler



so many fake sites. this is the first one which worked! Many thanks



Determination of Caffeine and Paracetamol in Bristol Harbour Water by LC/MS/MS
Yasmin Walter, Paul Bowdler and Kevin C. Honeychurch
Department of Applied Science, University of the West of England, Frenchay Campus, Coldharbour Lane, Bristol BS16 1QY, UK; Email: k.honeychurch@uwe.ac.uk

Introduction
Anthropogenic inputs such as caffeine and paracetamol can be used as possible chemotracers of sewage pollution as their presence can be presumed to result from human sewage inputs.
In this present investigation we determined the concentrations of caffeine and paracetamol in the sewage effluent at Bristol Harbour, Bristol, UK and compared these with the levels of *Escherichia coli* (*E. coli*) present.

Methods
Following solid phase extraction the concentrations of caffeine and paracetamol were determined by liquid chromatography tandem mass spectrometry methodology using an Agilent 1260 Infinity HPLC system coupled to an Agilent 640 Triple Quadrupole Mass Spectrometer (Figure 1). *E. coli* measurements were undertaken by Bristol City Council.

Results and Discussion
Both caffeine and paracetamol were found to be present in all water samples investigated at concentrations between 0.002–1.13 µg/L and 0.1–130 µg/L, respectively. Figure 2 shows the relationship between caffeine and paracetamol and *E. coli*. A strong relationship was found for concentrations of caffeine and *E. coli* in the water sample investigated. Concentrations of paracetamol showed a poor relationship with *E. coli* counts.

Conclusions

- Caffeine was shown to have a strong positive relationship with *E. coli* levels.
- Paracetamol was showed poor relationship with *E. coli* levels.
- All samples investigated were found to contain both caffeine and paracetamol.

Figure 1: LC/MS/MS behaviour of (a) paracetamol and (b) caffeine concentrations in Bristol Harbour water.

Figure 2: Relationship between *E. coli* counts and (a) caffeine and (b) paracetamol concentrations in Bristol Harbour water.