Claims

1. A method of quantifying the total amount of VOCs in a sample comprising the steps of:

(a) providing a feed stream of polar and non-polar VOCs in a liquid phase;

(b) separating the feed stream into a volatile phase that predominantly contains non-polar VOCs and a liquid phase that predominantly contains polar VOCs;

(c) passing the liquid phase through a permeable barrier to separate the polar VOCs into a polar VOC permeate stream and non-VOC retentate stream; and

(d) measuring the quantity of VOCs in the volatile phase of step (b) and the permeate stream of step (c) to calculate the total amount of VOCs in said sample.

2. A method of identifying targeted VOCs present in a sample, comprising the steps of:

(a) providing a feed stream of polar and non-polar VOCs in a liquid phase;

(b) separating the feed stream into a volatile phase that predominantly contains non-polar VOCs and a liquid phase that predominantly contains polar VOCs;

(c) passing the liquid phase through a permeable barrier to separate the polar VOCs into a polar VOC permeate stream and non-VOC retentate stream; and

(d) analyzing the VOCs in the volatile phase of step (b) and the permeate stream of step (c) to thereby identify said targeted VOCs in said sample.