SECTION 2: OASIS® REVERSED-PHASE (HLB) OPTIMIZED METHODOLOGY

This optimized protocol further removes interferences, and a cleaner extract is achieved by simply manipulating the organic concentration and/or the pH.

In reversed-phase SPE, the retention of analytes is influenced by organic concentration and pH. The analyte retention factor (k') decreases with an increase in the organic concentration. When the pH is altered, the analytes' retention depends on the nature of the compounds. Basic analytes will be more retained at a high pH value (unionized/neutral form) and less retained at a lower pH (ionized/charged form). Conversely, acidic analytes will be more retained at a low pH value and less retained at a high pH.



The Oasis[®] HLB sorbent is a patented hydrophilic/lipophilic balanced polymer, which provides excellent pH stability across the entire pH range (0 to 14). This broader pH range allows the flexibility of SPE methods development. The Oasis[®] HLB sorbent also exhibits three to five-times higher retentivity/capacity than C_{18} . This higher capacity facilitates the method development.

OASIS® HLB OPTIMIZED METHOD

The Wash-Elute Study is performed to determine the optimal retention and elution parameters for a given analyte on the Oasis® sorbent using organic concentration and pH.



WASH-ELUTE STUDY RESULTS



FINALIZED OPTIMIZED OASIS® HLB METHOD

(for verapamil in plasma)

