1. Summary

Sample concentration is a common step in sample preparation prior to analysis that is performed to increase method sensitivity or to exchange solvent environment. Sample concentration can be thought of as a separation technique, since the more volatile component of a mixture is preferentially removed from less volatile components. In most, but not all cases, the more volatile components are not recovered. This presentation will provide an overview of different approaches used to concentrate samples, with brief demonstrations of the instruments used, including a needle evaporator, automated evaporator, rotary evaporator, and SpeedVac concentrator. An example will also be included of an instrument that is primarily intended for sample processing reactions (HotBlock digester).1