

7.4.5 SCREENING IMPROVEMENTS

In order to enhance the quality of screening data generated from highly valuable natural products, the nature of the extracts can be improved. There are a number of approaches to this problem, but the common goal has been to simplify the materials being tested. When the offending materials are well understood, such as the presence of tannins in plant extracts, pretreatment of the crude extracts may suffice to remove the tannins from the screening samples. A broader approach that is applicable to samples derived from a variety of sources is diagrammed in Figure 7.8. This HPLC-based method seeks both, to remove offending nonspecific materials, as well as simplify the actual screening samples. As diagrammed in Figure 7.8, the natural products are concentrated, often in the form of a solvent extract, and then subjected to separation by reversed phase HPLC. The compounds are separated employing gradient elution and only the material contained in the shaded area is retained

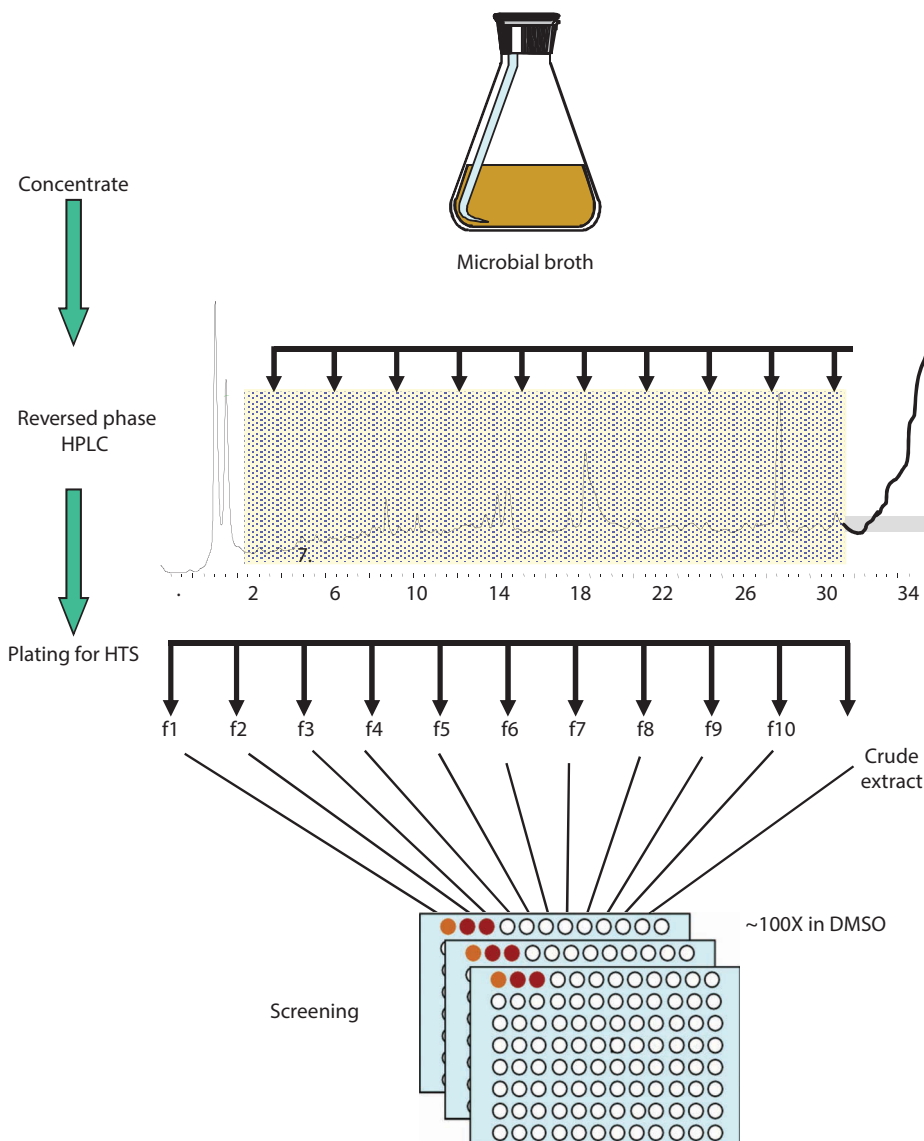


FIGURE 7.8 Prefractionation of natural products to generate improved samples for screening.