

During fractionation, the selected solvent is added according to the order of increasing polarity, starting from n-hexane, the least polar to water with the highest polarity.[3,9] If a researcher wishes to select five solvents during fractionation, the usual practice is to choose two solvents with low polarity (n-hexane, chloroform), two with medium polarity (dichloromethane, n-butanol), and one with the highest polarity (water). It is not ideal for preparation of tinctures.[14] Factors to be considered in selecting solvents of extraction Various factors enumerated below should be taken into consideration when choosing a solvent of extraction

Hexane. It is a nonpolar solvent and is useful in the extraction of compounds such as alkaloids, terpenoids, coumarins, and fatty acids.[3, 12, 13] Advantages. It is a nonpolar solvent and is useful in the extraction of compounds such as terpenoids, flavonoids, fats, and oils.[3, 12, 13] Advantages. It has excellent solvent that attracts and transmit microwave, and hence it is suitable for microwave-assisted extraction. It does not dissolve fats, gums, and wax; it is flammable and volatile.[9, 12]

(iii) Chloroform. It has extreme miscibility with water and other solvent and is very suitable in the extraction of polar compounds.[14] Advantages. It dissolves a wide range of substances; it is cheap, nontoxic, nonflammable, and highly polar.[9, 12] Disadvantages.