Plate 48 Membrane Separations: Diffusion Dialysis. Chemical dialysis. Glassware used for purifying solutions by separating them from colloid chemicals using dialysis. During dialysis an impure solution is placed in a semi-permeable membrane (spheres) which is immersed in a pure solvent. Some of the chemicals within the membrane may pass out into the solvent by diffusion. The chemicals that remain trapped within the membrane are called colloids. Colloids usually consist of large molecules & tiny particles, although their exact composition depends upon the nature of the membrane. (Reproduced with permission from Science Photo Library.)