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O3 - DIALYTIC SEPARATION OF ANIONS FROM DMSO SOLUTION FACILITATED BY DENDRITIC RECEPTORS

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For complexation of anions via hydrogen bonding, a variety of receptors was proposed, synthesized and tested so far[1]. Attachment of a well explored anion sensing moiety, an isophthalamidic group[2], to dendritic structures of high molecular weight[3] leads to a new class of receptors. These compounds possess the advantage of multiple complexation sites with high affinity towards anions. Moreover, they offer the possibility of separation of the formed complex from the solution and subsequent recycling of the receptor.

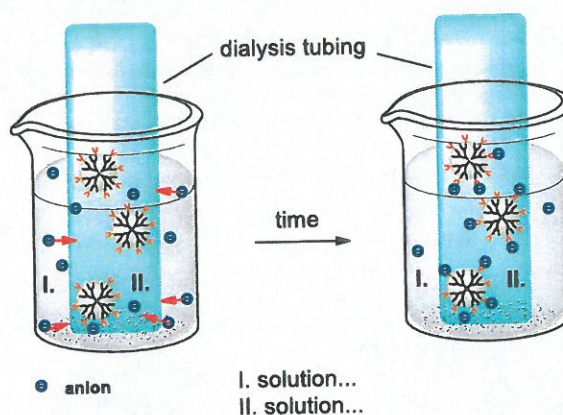


Figure 1: schematic facilitated dialytic separation of anions from solution

As the dialytic tubing is impermeable for big molecules of receptor, the anions crossing the barrier of dialytic tubing to form complex with the receptor stay entrapped inside and can be removed from the solution. NMR methods were used to study the complexation properties of given receptors as well as to determine the concentration changes during dialytic experiments.

References

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