Peptide-Based Organic Microporous Materials

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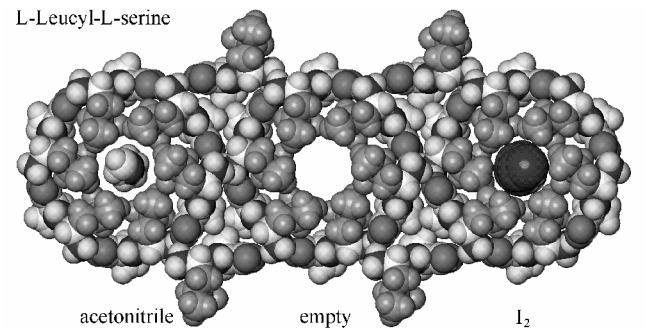
In the last few years, small peptides have emerged as an unexpected source of microporous materials. Uniquely among organic molecules, these compounds may not only form crystal structures with nanotubes with der Waals' diameter from 3.2 to 10 Å, but cocrystallized solvent molecules located in the channels can often be removed with full retention of the peptide scaffold. Subsequently, absorption of other organic or inorganic molecules can take place.



This presentation gives an overview of the known microporous peptide structures, with special emphasis on recent experimental results, as for the dipeptide L-leucyl-L-serine (see illustration).

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