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Polyphosphonium Salts as Templates for New Zeolites

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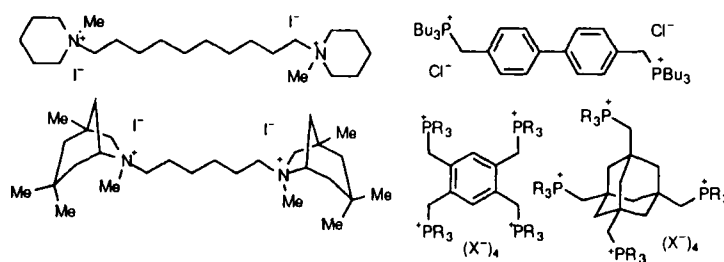
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Polyphosphonium Salts as Templates for New Zeolites

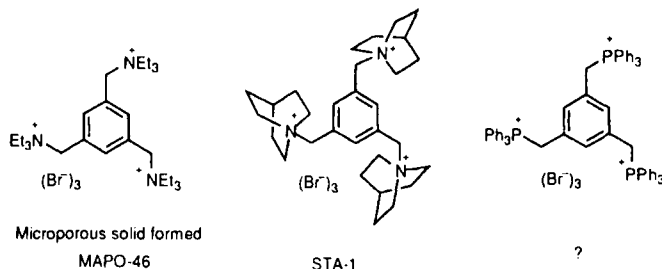
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Zeolites have conventionally been prepared using quaternary ammonium salts as templates which control the pore size and structure of the resulting material. A range of poly-ammonium and -phosphonium salts of the types shown have been prepared for evaluation in directing the formation of new zeolite structures, particularly those with large pore sizes which may be useful as catalysts for organic reactions.¹ As shown by the examples below, the construction of one, two and three dimensional templates is in progress.



The sometimes unpredictable behaviour of compounds like this as templates is illustrated by the three apparently similar trications below which each give rise to a different microporous solid.



References

- [1] R.E. Morris and P.A. Wright, *Chem. Ind. (London)*, 256 (1998).