

- N, N', N'', N''', N'''' - hexaacetic acid (TTHA) and TTHA - bis(butanamide) as chelating agents relevant to radiopharmaceutical applications[J]. *Inorg Chem*, 1998, 37(11):2729 - 2740.
- [30] Rita D, Sun Y Z, Motekaitis R J, et al. Stabilities of divalent and trivalent metal ion complexes of macrocyclic triazatrizacetic acids[J]. *Inorg Chem*, 1993, 32: 3320 - 3326.
- [31] Hsien M C, Kao H M, Lii K H, et al. Synthesis, crystal structure, and solid - state NMR spectroscopy of (4 - HAP)₂[Ga₄O(PO₄)₄(H₂O)₄](AP = a minopyridine), a gallophosphate containing discrete double - four - ring units[J]. *Chem Mater*, 2001, 13(8):2584 - 2588.
- [32] Köstler W, Linti G. Synthesis and structure of a tetragallane [R₄Ga₄I₃] - and a polyhedral nonagallane [R₆Ga₉][J]. *Angew Chem Int Ed Engl*, 1997, 36(23): 2644 - 2646.

Advance in the complex gallium of scattered elements

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Abstract: The coordination chemistry of gallium is a rapidly developing area of research in recent years. This paper gives a review on the research work of organogallium complexes formed by gallium and main group element, transition element as well as typical ligands.

Key words: scattered elements; gallium compounds; organogallium complex; advancement

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