

講演会のご案内

演題：**Uranium peroxide complexes, structures, chemical equilibria and chemical bonding**

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日時：2012年 10月 25日（木）16:30~18:00

会場：理学部本館 N-308室

主催：大学院総合化学院、フロンティア化学教育研究センター

要旨： There are extensive studies of structures and bonding of peroxide complexes with d-transition metals (Ti, Cr, V etc.). Over the last few years the group of Professor Burns at University of Notre Dame has prepared a number of uranyl(VI) peroxide cluster that can contain up to 150 uranyl-units linked by peroxide and hydroxide bridges.

These compounds crystallize from aqueous solution and I asked myself if it was possible to identify precursors in solution as these large units are certainly not formed in one step from the components. By using traditional equilibrium-analytical and NMR methods we were able to identify some precursors, for instance $\{[UO_2(O_2)(CO_3)]_5\}^{10-}$ that forms a five-ring, a common structure element in uranyl peroxide clusters.

I will make some comments about chemical bonding in peroxide systems.

連絡先：理学研究院化学部門・加藤昌子（内線：3817）

本講演は、大学院総合化学院『化学研究先端講義／総合化学特別研究第二』の一部として認定されています。