



## **CYCLE DE CONFÉRENCES DE CHIMIE**

*Avec le concours de : Manufacture Française des Pneumatiques MICHELIN  
Ecole Nationale Supérieure de Chimie de Clermont-Ferrand  
Institut de Chimie de Clermont-Ferrand (ICCF UMR 6296)  
U.F.R.S.T. Département de Chimie*

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### **Vendredi 31 Mai 2013 à 10h (Hors cycle)**

Salle C, Bâtiments de Chimie - (Site des Cézeaux)

### **Pr. Yasuaki Tokudome**

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## **Macroporous inorganic monoliths from metal salts: toward mixed metal oxides and layered double hydroxides**

Monolithic porous oxides/hydroxides with hierarchical channel structure have attracted considerable attention because high permeability of gas and liquids, high surface area, and easy-handling in use take advantage in applications using surface chemistries. Here our attention is focused on functional layered materials with porous structures as well as a monolithic form. Monolithic layered double hydroxides (LDHs) with interpenetrating channels have been expected to enhance intercalation rate as well as increase accumulation of anions. Although powder molding can form easy-handled LDH compacts, interconnected channel formation therein has not been achieved. In this study, we demonstrate cm-scale monolithic LDH-based composites with interconnecting hierarchical channels via a spontaneous sol-gel reaction.