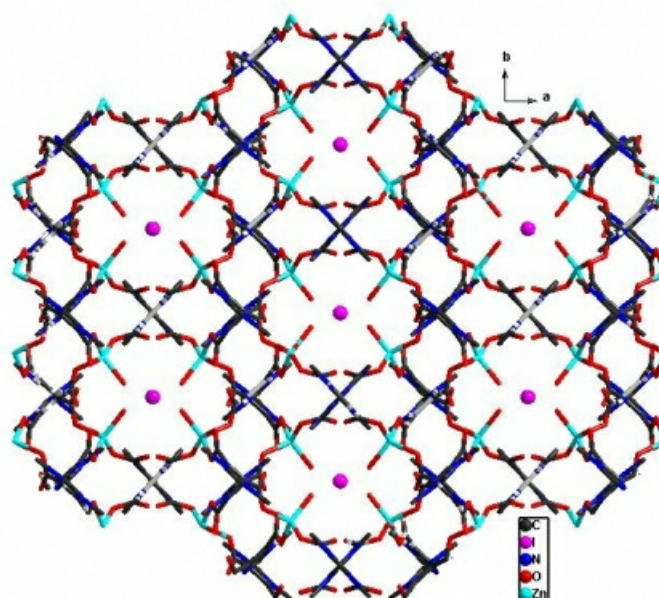


*CPs/complexes derived from 4,5-Dicarboxy-1,3-Dimethyl imidazolium iodide*

Sharad Kumar Sachan<sup>1</sup>, Sarita Tripathi<sup>1</sup>, Anantharaman Ganapathi<sup>1</sup>  
<sup>1</sup>Chemistry, Indian Institute Of Technology Kanpur, Kanpur Nagar, India  
E-mail: ssachan@iitk.ac.in

N-heterocyclic carbenes (NHCs) are important class of ligands which are used as spectator ligands in stabilizing metal complexes and they are widely utilized as catalysts in organic transformations. Incorporation of these units into coordination polymers or metal organic framework could be advantageous in terms of recoverable and recycling of catalysts without compromising its catalytic activity. In this regard two different approach is possible to prepare the metal-NHC complexes containing coordination polymers (CPs) or Metal Organic frameworks (MOFs).[1] In the first method the imidazolium units were tethered on to the walls of the coordination polymers and in later, the metal-NHC complexes can be synthesized through post modification method using appropriate metal precursors. In the latter route, the metal-NHC complexes can be used as metalloligands for the synthesis of CPs/MOFs. In this regard, 4,5-dicarboxy-1,3-dimethyl-1H-imidazolium iodide (1) and 4,5-bis(ethoxycarbonyl)-1,3-dimethyl-1H-imidazolium iodide (2) are synthesized for the preparation of CPs and metal complexes.[2] Herein, we present syntheses and structural characterization of the complexes/CPs obtained from 1 and 2.[3]

[1] Herrmann, W. A. (2002), *Angew. Chem., Int. Ed.*, 41, 1290–1309.  
[2] Tripathi, S.; Anantharaman, G. (2015) *CrystEngComm*, 17, 2754-2768.  
[3] Mohapatra, C. et al, (2014), *Cryst. Growth. Des.* 14, 3182-3185.



**Keywords:** [NHC](#), [Immobilization](#), [MOF](#).