

European Chemistry Congress

June 16-18, 2016 Rome, Italy

Tailor-made synthesis of multilayered trimetallocyclophanes via transannular π - π Interactions

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Synthesis and operation of a nano-dimension $24 \times 24 \times 15 \text{ \AA}^3$ "left and right ball-joint-type host-guest system" via one π - π interaction and three $\text{NH}\cdots\text{O}=\text{C}$ hydrogen-bonds along with the combined helicity are described. The system consists of unprecedented conglomerate aggregates of two distinct helical metallocyclophanes, chiral isomer (P)- $[\text{Pd}_3\text{X}_6(\text{L}_1)_2]@(\text{M})$ - $[\text{Pd}_3\text{X}_6(\text{L}_1)(\text{L}_2)]$ and its enantiomer (M)- $[\text{Pd}_3\text{X}_6(\text{L}_1)_2]@(\text{P})$ - $[\text{Pd}_3\text{X}_6(\text{L}_1)(\text{L}_2)]$ are described. Successive reactions afford desirable four-layered metallocyclophanes via tailor-made procedure. Synthesis and operation of a nano-dimension size multilayered metallocyclophane system via one π - π interaction along with the combined helicity are described.

Biography

Ok-Sang Jung has completed his PhD in 1990 from Korea Advanced Institute of Science and Technology and did his Postdoctoral studies from University of Colorado in 1992-1993. He is the Director of BK21+ program of Pusan national University. He has published more than 230 papers in reputed journals and has been serving as an Associate Editor of *Bull. Korean Chem. Soc.*

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