

Template-free Synthesis of Novel Zinc Phosphate Open-Framework Containing Bromide as Heteroatom

이영훈, 박상언*, 이 옥¹, 한상철, Sujandi
인하대학교 화학과; ¹부경대학교 화학과
(separk@inha.ac.kr*)

New zinc phosphate, $Zn_2(H_2PO_4)_2BrOH$ have been synthesized by hydrothermal method in the presence of 1-butyl-3-methylimidazolium bromide (BMIMBr). Especially it contains tetrahedrally structured bromine atom in the framework and maintains template-free 8-membered open-framework without organic template. The structure of this complex was solved by single-crystal X-ray diffraction analysis and characterized with thermogravimetric analysis, powder X-ray diffraction, and Fourier Transform-Infrared spectroscopy.