## Tuning the Morphology of Ag3PO4 Photocatalysts with an Elevated Concentration of KH2PO4

Title	Tuning the Morphology of Ag3PO4 Photocatalysts with an Elevated Concentration of KH2PO4
Author Order	2 of 4
Accreditation	1
Abstract	Tuning the morphology of Ag3PO4 photocatalysts with an elevated concentration of KH2PO4 have been successfully conducted. This photocatalyst was prepared by starting material of AgNO3 and KH2PO4.Ã, The KH2PO4 aqueous solution with five concentrations of 0.10 M, 0.15 M, 0.30 M, 0.45 M, and 0.60 M was reacted with AgNO3 aqueous solution. The products were characterized using X-ray Diffraction (XRD), UV-Vis Diffuse ReflectanceÃ, Spectroscopy (DRS), and Scanning Electron Microscopy (SEM). The concentration of KH2PO4 significantly affected the morphology, size, and crystallinity of catalyst. The morphology of Ag3PO4 may be tuned with the synthesis using an elevated concentration of KH2PO4. The sample with the synthesis using 0.15 M of KH2PO4 exhibited the excellent photocatalytic activity. The high photocatalytic activity was caused by the small size of mixed morphology of sphere and tetrahedron, high crystallinity and defect sites.Ã,Â
Publisher Name	Department of Chemical Engineering - Diponegoro University
Publish Date	2019-12-01
Publish Year	2019
Doi	DOI: 10.9767/bcrec.14.3.4649.625-633
Citation	1
Source	Bulletin of Chemical Reaction Engineering & Catalysis
Source Issue	2019: BCREC Volume 14 Issue 3 Year 2019 (December 2019)
Source Page	625-633
Url	https://ejournal2.undip.ac.id/index.php/bcrec/article/view/4649/2988
Author	ROY ANDREAS, S.Si, M.Si, Ph.D