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Title:	SynSynthesis of Bi ₃ TaO ₇ –Bi ₄ TaO ₈ Br composites in ambient air and their high photocatalytic activity upon metal loading†
Authors:	Chatterjee, Kaustav (/jspui/browse?type=author&value=Chatterjee%2C+Kaustav) Banoo, M. (/jspui/browse?type=author&value=Banoo%2C+M.) Mandal, S. (/jspui/browse?type=author&value=Mandal%2C+S.) Sahoo, Lipipuspa (/jspui/browse?type=author&value=Sahoo%2C+Lipipuspa) Gautam, U.K. (/jspui/browse?type=author&value=Gautam%2C+U.K.)
Keywords:	Bi- and Ta-based light Air treatment High temperature
Issue Date:	2019
Publisher:	Royal Society of Chemistry
Citation:	Dalton Transactions, 48(21), pp.7110-7116.
Abstract:	Herein, we show that composites of Bi ₃ TaO ₇ –Bi ₄ TaO ₈ X (X = Cl, Br), two important Bi- and Ta-based light-responsive phases, can be prepared by high temperature, ambient air treatment of the precursors including easily oxidizable BiOX that retain the halide phases in excess of 60% and exhibit high photocatalytic activity. Furthermore, when these phases were loaded with less than 1% noble metals (Pd, Pt, Ag), nearly complete separation of the photogenerated excitons was observed, leading to a significant enhancement in the photocatalytic activity.
URI:	https://pubs.rsc.org/en/content/articlelanding/2019/dt/c9dt00068b#!divAbstract (https://pubs.rsc.org/en/content/articlelanding/2019/dt/c9dt00068b#!divAbstract) http://hdl.handle.net/123456789/2348 (http://hdl.handle.net/123456789/2348)
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