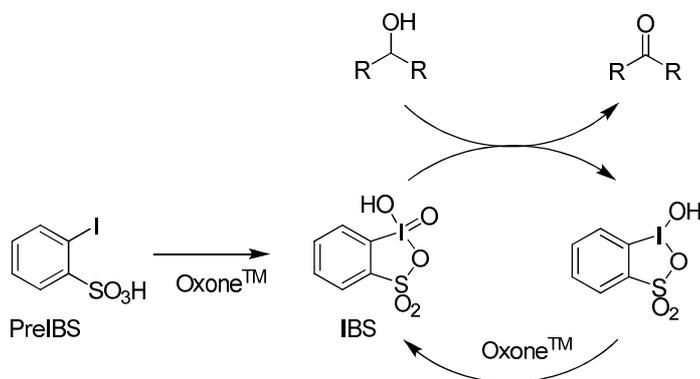
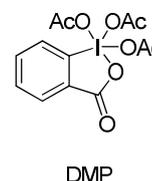


IBS highly active catalyst for alcohol oxidation

Nissan Chemical Industries, Ltd. has concluded an exclusive license for the IBS highly active catalyst for alcohol oxidation developed by Prof. Kazuaki Ishihara at Nagoya University which uses the commercially available IBS with Oxone™ oxidation reagent in bulk. IBS can oxidize alcohol safely and efficiently. (Figure below: Ishihara Oxidation)



In the past, oxidation of alcohol was performed using the hypervalent iodine reagent Dess-Martin periodinane (DMP) oxidation reagent. However, DMP is an expensive and highly explosive compound that is limited to use in laboratories. Ishihara's oxidation method efficiently uses the IBS hypervalent iodine reagent as a catalyst. For this reason, the amount of IBS used is only 1/100 to 1/1,000 in comparison with the amount of DMP. IBS as an active catalyst is made from PreIBS with Oxone™ in situ. Ishihara oxidation is for non-metal usage and is a convenient and safe technology for alcohol oxidation. We hope it sees wide use in the industrial world.



PreIBS is commercially available from Junsei Chemical LTD. for laboratory use.

Nissan Chemical can supply PreIBS in bulk under license by agreement and provide custom synthesis for target compounds using Ishihara oxidation.

Please contact our custom synthesis division (+81-3-3296-8005) for details.

Ref.

- 1) Kazuaki Ishihara et. al., *J. Am. Chem. Soc.* **2009**, *131*, 251-262
- 2) Kazuaki Ishihara et. al., WO2009/028676