

Publication**An Enantioselective Artificial Suzukiase Based on the Biotin–Streptavidin Technology****JournalArticle (Originalarbeit in einer wissenschaftlichen Zeitschrift)****ID** 3720516**Author(s)** Chatterjee, Anamitra; Mallin, Hendrik; Klehr, Juliane; Vallapurackal, Jaicy; Finke, Aaron D.; Vera, Laura; Marsh, May; Ward, Thomas R.**Author(s) at UniBasel** [Chatterjee, Anamitra](#) ; [Mallin, Hendrik](#) ; [Klehr, Juliane](#) ; [Vallapurackal, Jaicy](#) ; [Ward, Thomas R.](#) ;**Year** 2016**Year: comment** 2016**Title** An Enantioselective Artificial Suzukiase Based on the Biotin–Streptavidin Technology**Journal** Chemical Science**Volume** 7**Number** 1**Pages / Article-Number** 673-677

Introduction of a biotinylated monophosphine palladium complex within streptavidin affords an enantioselective artificial Suzukiase. Site-directed mutagenesis allowed the optimization of the activity and the enantioselectivity of this artificial metalloenzyme. A variety of atropisomeric biaryls were produced in good yields and up to 90% ee. The hybrid catalyst described herein shows comparable TOF to the previous aqueous-asymmetric Suzuki catalysts, and excellent stability under the reaction conditions to realize higher TON through longer reaction time.

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