

# Science of Synthesis

## Your expert guide to making molecules

- Want a comprehensive overview of a certain topic?
- Need to find the right synthetic route quickly?
- Looking to save time when planning a synthesis?

The screenshot shows the Science of Synthesis website interface. The main article title is "16.2.1.3 Enantioselective Cycloadditions of Chalcones Enabled by Ruthenium/Scandium Dual Catalysis". The DOI is 10.1055/sos-SD-229-00260. The author information is Amador, A. G.; Scholtz, S. O.; Skubi, K. L.; Yoon, T. P., Science of Synthesis: Photocatalysis in Organic Synthesis, (2018) 1, 479. The abstract describes an alternative strategy for enantioselective photocatalysis using a second species that perturbs the photophysical properties of the substrate. A chemical reaction scheme is shown below the text, labeled as Table 6: Intermolecular (2+2) Cycloaddition of Hydroxychalcones. The reaction involves a hydroxychalcone (14) reacting with an alkene (15) in the presence of a [Ru(bipy)2]PF6 catalyst (2.5 mol%), a Sc(OTf)3 catalyst (10 mol%), and a photocatalyst (10 mol%) in CH2Cl2 at 0.03 M concentration under 25-W CFL light for 20 hours to yield a cyclobutane product (16).

To register scan the QR code below or click here!



### When:

11:00 am, Friday 28th July 2023  
(Refreshments will be provided)

### Where:

Room D211 (Graduate Lounge)  
UBC Chemistry Department

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Presenter:  
Dr. Toby Reeve,  
Executive Editor,  
Science of Synthesis



We transform synthesis!

