

# Science of Synthesis

Full-text resource for methods in synthetic organic chemistry

Science of Synthesis provides a critical review of synthetic methodology developed to-date in the fields of organic and organometallic chemistry, compiled by over 1,750 experts in the fields.

It helps you answer questions such as:

- What is the background and context to the field of research I am interested in?
- Which synthetic methodology is the most reliable and which experimental procedures could I use?
- Which experts work in this field and what is their opinion?

The screenshot displays the Science of Synthesis interface. At the top, there are navigation tabs: Home, Query, Results, Full Text, and Explore Contexts. Below this, a search bar shows the query 'Organometallics > Organometallics > Gold-Catalyzed > Gold-Catalyzed'. The main content area features a navigation sidebar on the left with 'Hit 1 of 1' and 'Previous / Next' buttons. The central text block is titled '3.6.13.1.3.2 Method 2: Synthesis of Dicomarins via Cyclization-Homocoupling Using tert-Butyl Hydroperoxide' with a DOI of 10.1055/sos-SD-103-00038. The text describes the synthesis of 2H-benzopyran-2-ones (dicumarins) 37 from aryl propenoate esters 36 via a gold(III)-catalyzed cyclization-oxidative homocoupling cascade process. It mentions the use of a strong oxidizing agent tert-butyl hydroperoxide and a gold(III)-catalyzed cyclization-oxidative homocoupling cascade process (Scheme 16). Below the text is 'Scheme 16 Synthesis of 2H,2'H-[3,3'-b-benzopyran]-2,2'-diones via Cyclization-Oxidative Homocoupling<sup>[37]</sup>'. The scheme shows the reaction of an aryl propenoate ester (36) with 5 mol% AuCl<sub>3</sub>, t-BuOOH (5 equiv), and 1,2-dichloroethane at 60 °C for 24 h to yield a dicumarin (37).

<http://sos.thieme.com>

Best methods. Best results.