Synthetic Platform for Alkane Functionalization: Site-Selective Aliphatic C-H Dithiocarbonation

Technology #16-0005

This synthetic platform enables aliphatic C-H bond functionalization and xanthylation using N-xanthylamides and visible light. Unlike other C-H functionalizations which require specific functionality present in the substrate and lack generality in applications to diverse structures, this site-selective transformation facilitates a remarkably efficient and general approach for the introduction of the xanthate functional group into a diverse array of organic small molecules. The requisite N-xanthylamides are easily accessible on scale from the parent N-chloroamides and potassium ethyl xanthate. C-H bond functionalization is a powerful tool for chemical synthesis, and as the xanthate functional group is readily converted to a broad range of valuable synthetic functionality, this approach has a broad utility in organic synthesis. More information regarding this platform can be found in the listed publication below.

If you are an academic institution or nonprofit organization interested in this research
tool for noncommercial purposes, please contact the researcher directly to inquire about availability.

**Related Publications:**

- C-H Xanthylation: A Synthetic Platform for Alkane Functionalization
  

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Tangible Property

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