



TECHNOLOGY

Tailor-made Synthesis of Cucurbit[n]uril Analogs: Bis(phythalhydrazides) as Glycouril Surrogates

OVERVIEW

The similarity between the molecular shape of cyclic hexameric compound known as CB[6] and the shape of a pumpkin provided the impetus for Mock and co-workers to name this molecule a cucurbituril. Through their pioneering work, the groups of Mock and Kim have defined the molecular recognition properties of CB[6] and demonstrated its application in self-assembly studies. These pioneering cucurbiturils possess the approximate dimensions of an α -cyclodextrin and molecular recognition features that resemble those of both crown ethers and cyclodextrins.

. These compounds also find use in sensors for discrete molecular guests, as catalysts for reactions within their cavities, chromatographic stationary materials, as materials for aqueous waste stream purification as novel filter components gas masks and homeland defense agents.

Researchers at the University of Maryland have described a building block approach to the synthesis of cucurbiturils CB[5], CB[6], and CB[7] and have produced novel shaped structures.

For additional information and licensing opportunities, please contact the Office of Technology Commercialization, University of Maryland. Phone: 301-405-3947. Email: otc@umd.edu

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Additional Information

INSTITUTION

University of Maryland, College Park

PATENT STATUS

Patent(s) pending

LICENSE STATUS

Available for exclusive license

CATEGORIES

- Drug delivery devices

EXTERNAL RESOURCES

- [US Patent 7,335,768](#)

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