FUNCTIONALIZATION OF DEEP-CAVITY CAVITAND WITH POLYMER SIDE CHAIN.

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Cavitands have been a subject of increasing research due to the fact that their rigid cage structure enables selective encapsulation of guest molecules. Here we report the synthesis of PEGylation of deep-cavity cavitands with a highly efficient, modular approach to tune their solubility and biological properties using “click” chemistry. Initial data of Gel permeation chromatography (GPC) showed that the products of higher molecular weight were generated.

![Graph showing Gel permeation chromatography results](image)

Conditions have been identified to successfully prepare the alkynated cavitand and subsequently “clicked” with azido-PEG. This modular approach shows high efficiency and quantitative functionalization. The products will be purified and the properties such as solubility and effect of encapsulation will be studied.

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