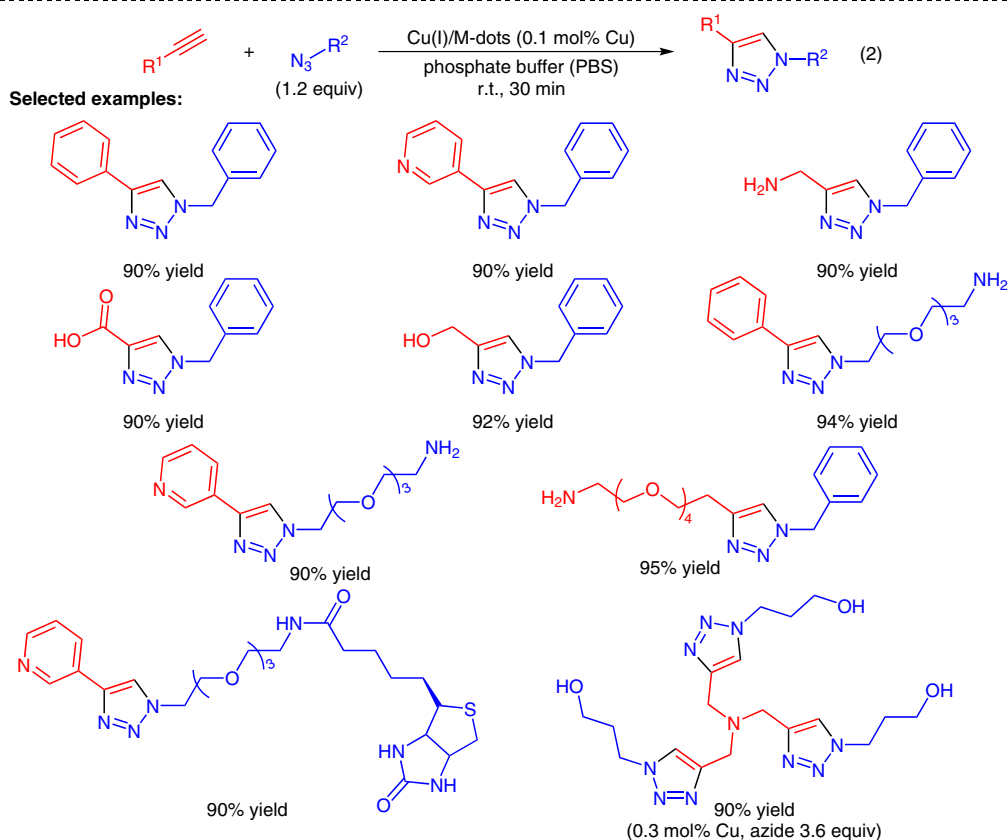
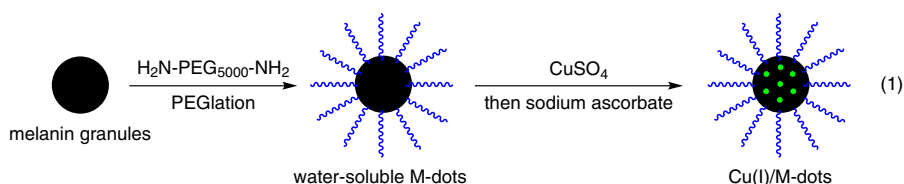


Y. SUN, S. HONG, X. MA, K. CHENG, J. WANG, Z. ZHANG, M. YANG, Y. JIANG, X. HONG,*
 Z. CHENG* (STANFORD UNIVERSITY, USA; WUHAN UNIVERSITY AND PEKING UNION
 MEDICAL COLLEGE HOSPITAL, BEIJING, P. R. OF CHINA)
 Recyclable Cu(I)/Melanin Dots for Cycloaddition, Bioconjugation and Cell Labelling
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Azide–Alkyne Cycloaddition with a Melanin-Supported Copper(I) Catalyst



Significance: A copper(I) catalyst supported on poly(ethylene glycol) (PEG) grafted melanin granules [Cu(I)/M-dots], prepared by the method shown in eq. 1, catalyzed an azide–alkyne cycloaddition in phosphate-buffered saline at room temperature during 30 minutes to give the corresponding triazoles in $\leq 95\%$ yield (eq. 2).

Comment: In the azide–alkyne cycloaddition of amino-PEG₃ azide with ethynylbenzene, the Cu(I)/M-dots catalyst was recovered by centrifugation and reused six times without significant loss of its catalytic activity. The Cu(I)/M-dots-catalyzed azide–alkyne cycloaddition was also used in bioconjugation and cell labeling.

SYNFACTS Contributors: Yasuhiro Uozumi, Shun Ichii
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