

HARNESSING ALKYNE REACTIVITY FOR NEW CASCADE TRANSFORMATIONS

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New reactions of alkynes which lead to the formation of at least four new bonds (C-C, C-H, or a mixture of thereof) will be reported as well as the applications of these reactions to (a) the development of the world most efficient systems for double-strand DNA photocleavage, (b) preparation of walls and tips of carbon nanotubes and (c) complete disassembly of alkyne moiety and “unclicking” of “Click Chemistry” products.