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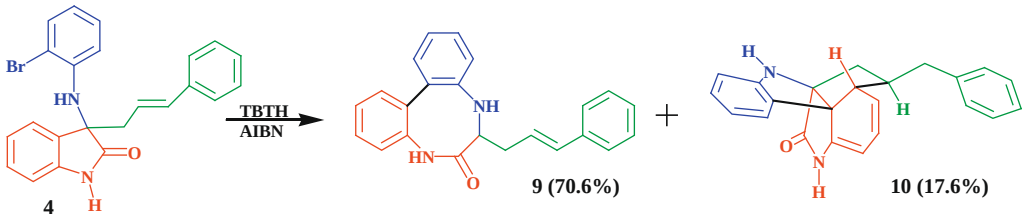
# Tetrahedron Letters Vol. 50, No. 17, 2009

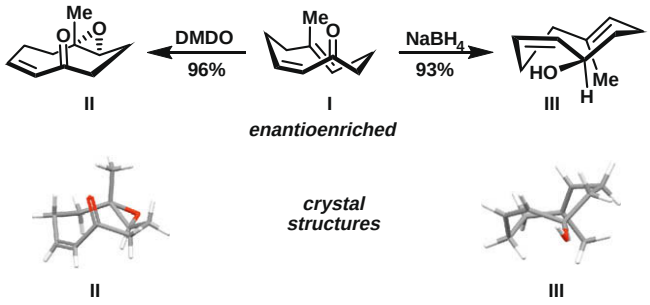
# Contents

## Communications

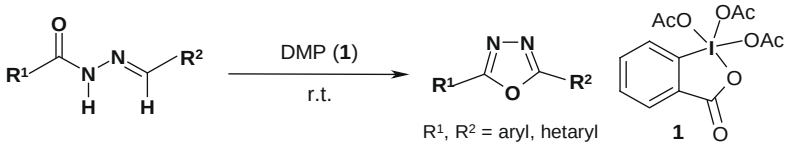




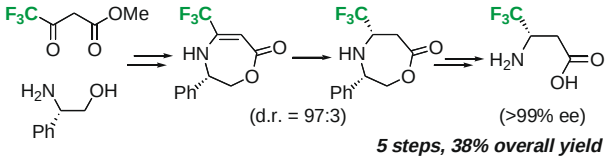


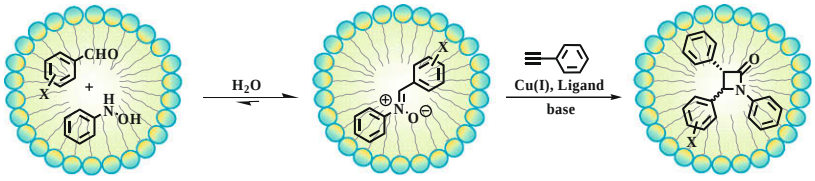



2,5-Disubstituted 1,3,4-oxadiazoles have been conveniently prepared by oxidative cyclization of *N*-acyl-*N*′-aryliden-hydrazines promoted by an excess of Dess–Martin reagent under mild conditions (23 examples, up to 92% isolated yields).

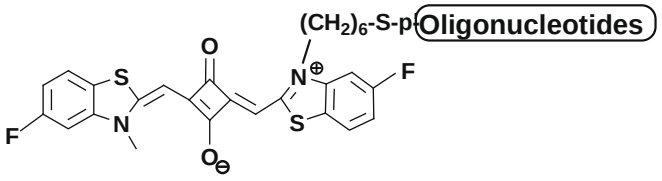




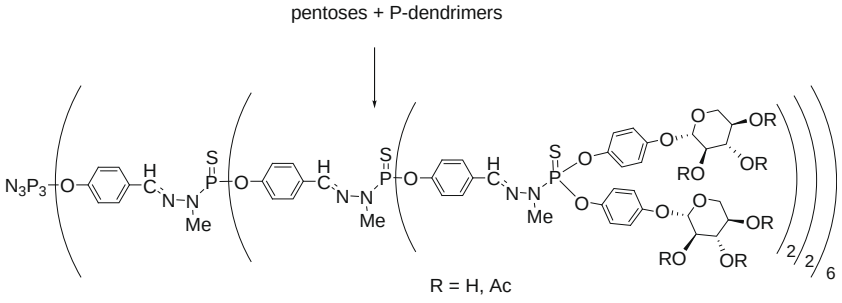

Studies of the micelle-promoted and copper-catalyzed multicomponent Kinugasa reaction in water are reported.

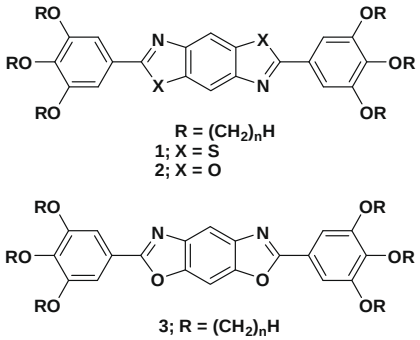


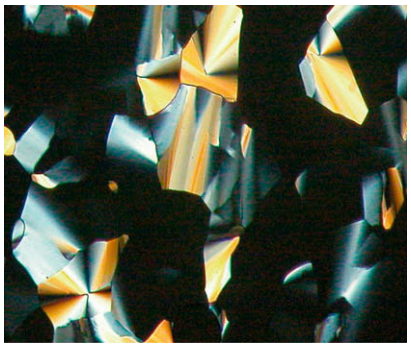



Fluorinated squaraine–oligonucleotide conjugates: detection beyond 670 nm and high quantum yields (0.27–0.39).

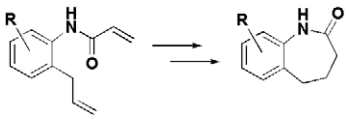




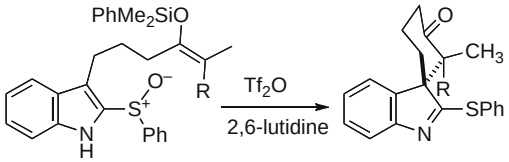


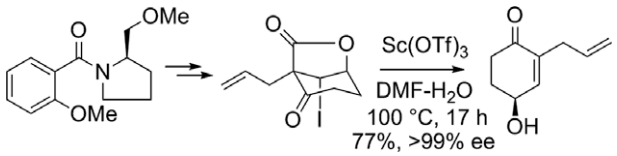


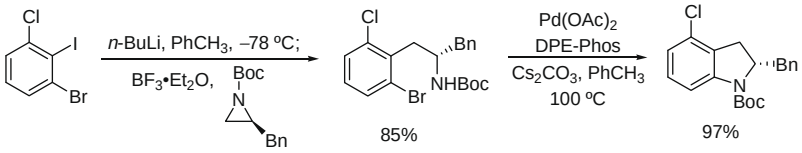




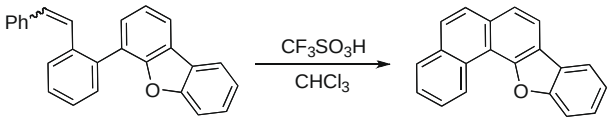





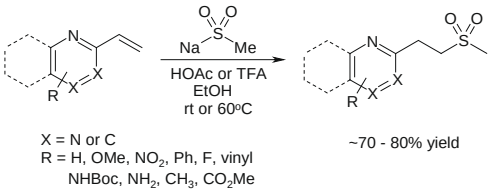





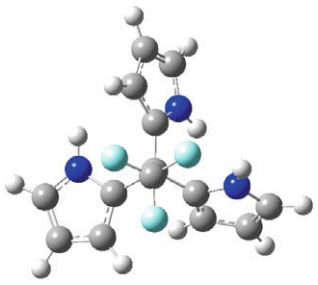


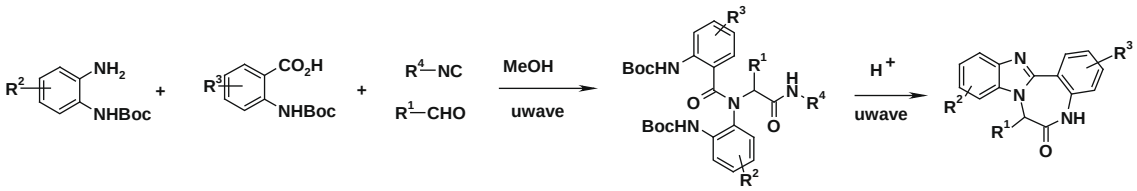




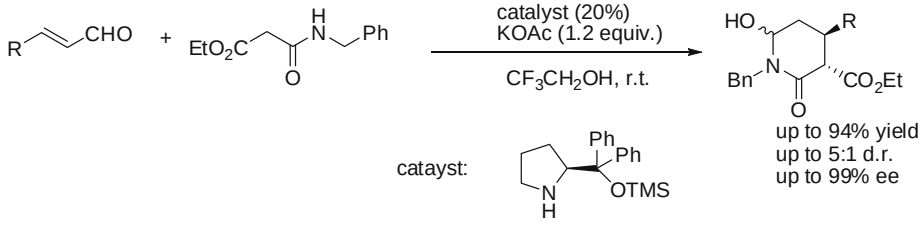



A thorough revision of the mechanism of trifluoroacetylation of pyrrole, identification, isolation, and characterization of a new pyrroylmethane probably missed in the synthesis of fluorinated porphyrins, is reported.

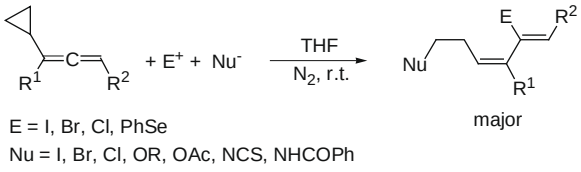



A novel two-step synthesis of triazadibenzoazulenones is described. The methodology represents the first example of a post-condensation Ugi modification that employs two 'internal nucleophiles'.



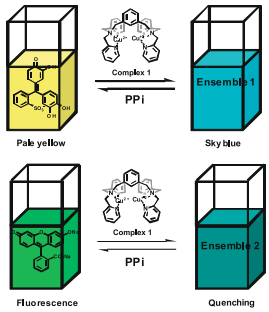


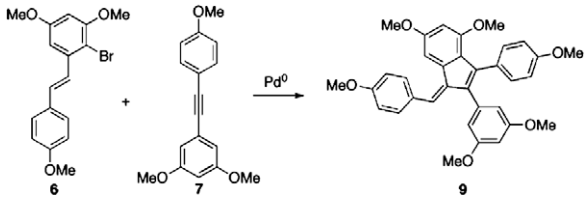



The difunctional additions of electrophiles and nucleophiles to 1-cyclopropylallenes were investigated. Two different functional groups were introduced at the same time to give 2,6-difunctional-1,3-hexadienes stereoselectively in good yields.

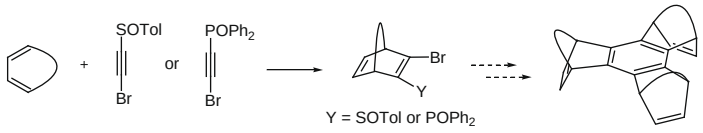




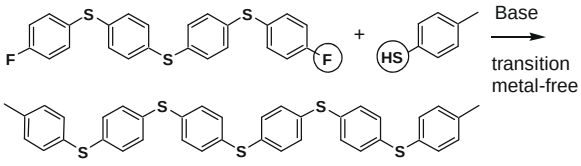



A route for the rapid assembly of the carbon framework of several resveratrol natural products is presented. A palladium-catalyzed domino reaction of bromostilbene derivative **6** and tolane **7**, involving two sequential Heck coupling reactions, provides access to the benzofulvene-based core of various resveratrol-derived natural products. The carbon skeleton of pallidol and its congeners is achieved by a Lewis acid-induced Nazarov-type oxidative cyclization of **9**.



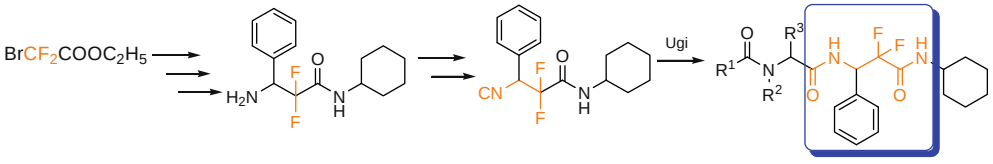




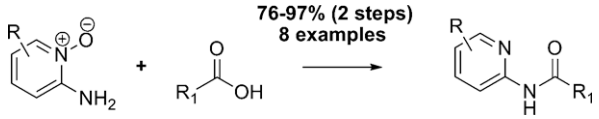




A series of monodisperse PPS oligomers of various length were synthesized by Cu-cat. Ar–S couplings or by fluorine aromatic substitutions with aryl thiolates. Fluorine chemistry brings new advantages such a greater solubility, reactivity and easier characterization by $^{19}F/^{13}C$ NMR. Crystallinity studies of a series of PPS oligomers were investigated.

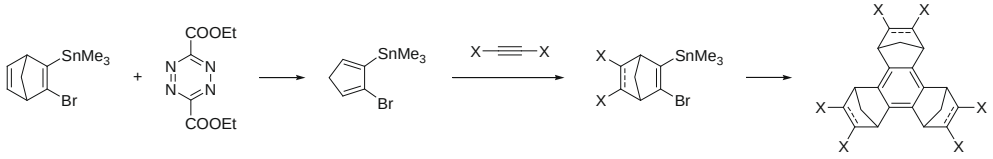




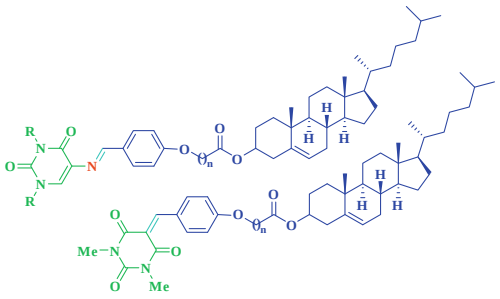

A new and efficient method was developed for the synthesis of novel *gem*-difluoromethylene-containing isocyanide, which can be used as a building block for the synthesis of difluorinated pseudopeptides via Ugi reaction.



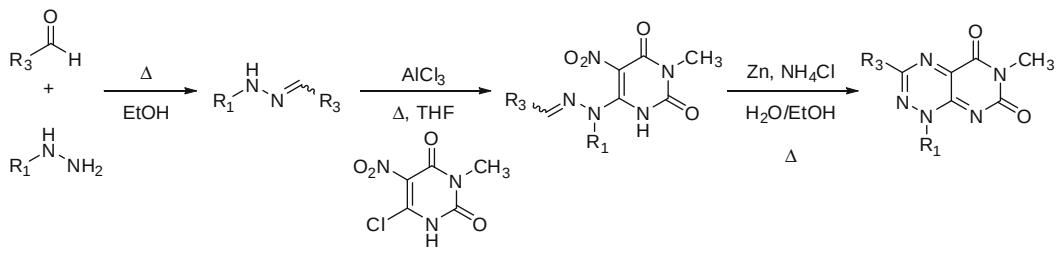


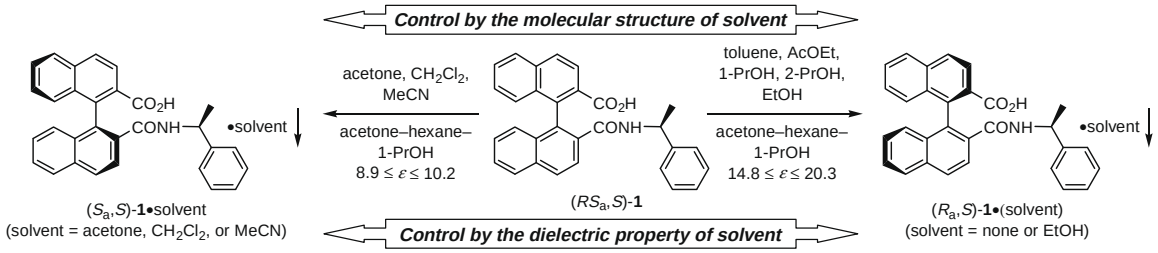





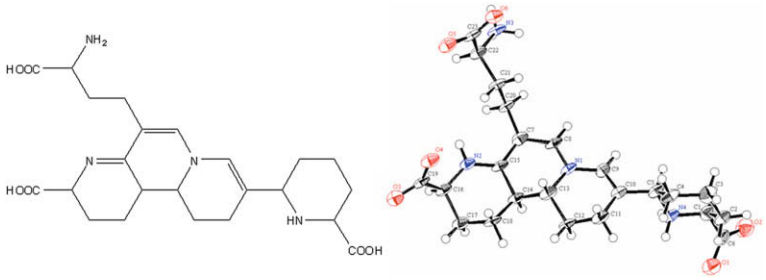






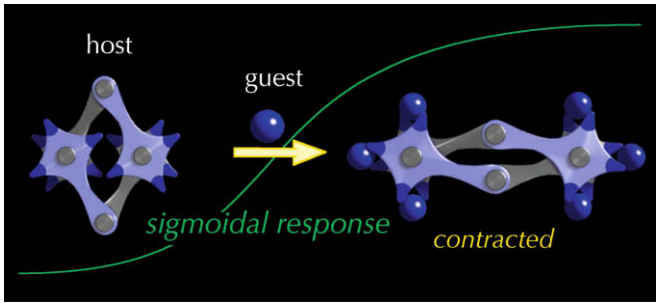




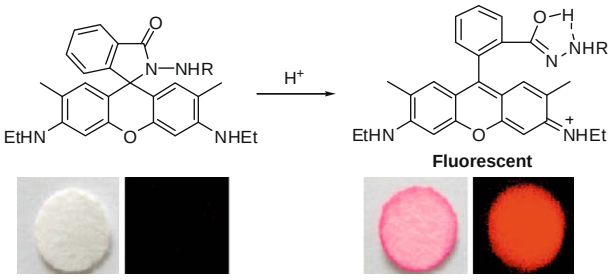



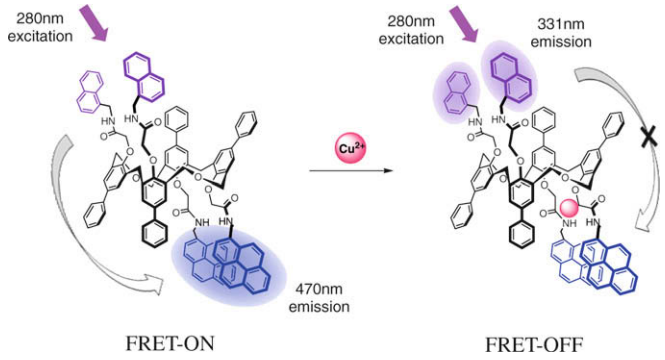

Oryzamutaic acid A, a novel yellow pigment, was isolated from the endosperm (polished rice) of an *Oryza sativa* mutant. The structure and absolute configuration of oryzamutaic acid A were elucidated on the basis of spectroscopic analysis, single-crystal X-ray diffraction analysis, and biogenetic reason.



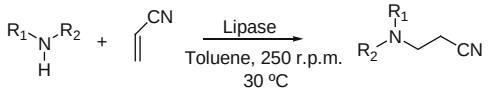




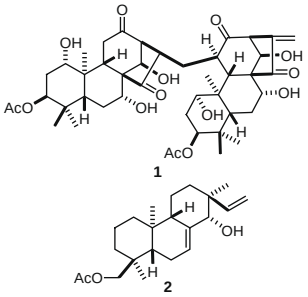










A phytochemical investigation of *Isodon pharicus* led to the isolation of a novel asymmetric *ent*-kauranoid dimer, bispseurata F (1), and three new diterpenoids pharicinins **A**–**C** (**2**–**4**). Their structures were elucidated by extensive spectroscopic analysis. Compound **1** features a unique linkage pattern of C-17 with C-11′ to connect the two monomers. A possible biogenetic pathway of **1** was also proposed. Compounds **3** and **4** exhibited moderate inhibitory activity against NB4 and SH-SY5Y cell lines.

*Corresponding author
Supplementary data available via ScienceDirect

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