The first example of the interaction between [60]fullerene and hydrazoic acid

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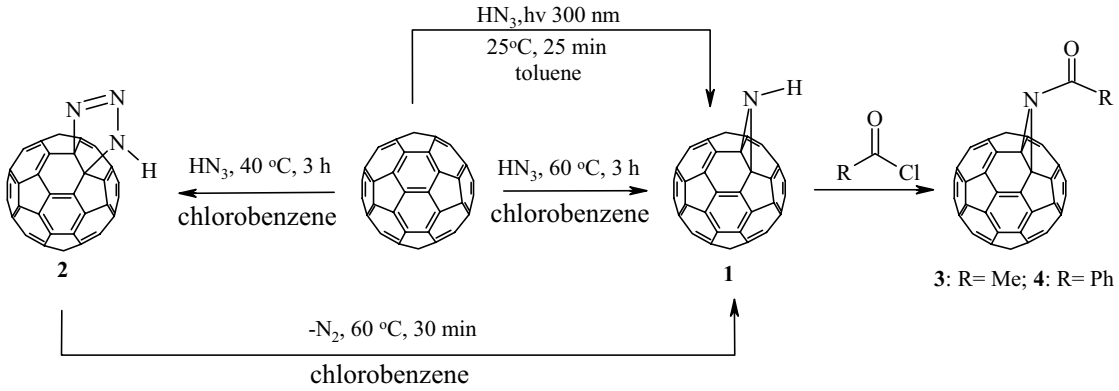
In the report, the effective one-pot synthesis of N-unsubstituted aziridino[2',3':1,9]fullerene **1** and triazolino[4',5':1,9]fullerene **2** via cycloaddition of hydrazoic acid to [60]fullerene is discussed. Our proposed method provides the formation of aziridinofullerene with high yield and selectivity and also a previously unknown triazolinofullerene.

The interaction (60°C, 3 h, vacuum-sealed ampoule) between hydrazoic acid, generated *in situ* by the reaction of NaN_3 with H_2SO_4, and [60]fullerene was shown to afford aziridinofullerene **1** in 50% yield. It was found that a decrease in the reaction temperature to 40°C favors the synthesis of only N-unsubstituted triazolinofullerene **2** in 15% yield, which is unstable and decomposes at room temperature to produce aziridinofullerene **1**. In these experiments, 5,6- and 6,6-open or 5,6-closed isomers of compound **1** were not detected in the reaction mixture.

In the photochemical reaction (hv 300 nm, 500 W, 25 min, toluene) between C_{60} and HN_3 at room temperature aziridinofullerene **1** is exclusively formed in the yield of ~15%.

Aziridinofullerene **1** readily enter into the acylation and benzoilation reactions to give the corresponding derivatives **3** and **4**, respectively.



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