**Synthesis of Novel Multi-functional Scaffolds from Sulfonyl Phthalides**

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[4+2] Annulation of stabilized phthalide anions as 1,4-dipolar synthons with various Michael acceptors leading to benzannulated quinones, especially naphthoquinones, is popularly known as Hauser-Kraus (H-K) reaction. This reaction involving Michael addition followed by Dieckmann cyclization and elimination provided access to complex molecules, including natural products. Although several Michael acceptors have been successfully employed in this reaction, nitroalkenes have not received sufficient attention.

In the above scenario, we reported the Hauser-Kraus annulation of sulfonyl phthalides with nitroalkenes and other electron deficient alkenes. This involved a strategic variation of the reaction to [4+4] annulation by employing nitroalkenes bearing an additional nucleophilic site resulting in complex fused and spiro-heterocycles. This strategy has been extended to o-hydroxychalcones and o-hydroxyaryl para-quinone methides which also afforded fused indenofurans and spiro-lactones.

In another approach, synthesis of aminophenanthrenes, including phenanthrene substituted amino acids, and benzoquinolines has been achieved using nitroalkenes bearing a key ketoalkyl moiety. A one-pot construction of functionalized spiro-dihydronaphthoquinone-oxindoles via Hauser-Kraus annulation of sulfonyl phthalide with 3-alkylideneoxindoles has also been reported by us.

The unusual reactivity of sulfonyl phthalide with other substrates such as isatylidenemalononitrile, activated imines, O-protected salicylaldehydes etc will also be discussed.

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