SYNTHESIS OF ANGULAR TETRACYCLIC FRAMEWORKS CONTAINING SPIROCHROMANONE MOIETIES BASED ON THE CONCEPT OF MOLECULAR HYBRIDISATION

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The combination of two or more pharmacophores into a single molecule is an effective method used in medicinal chemistry to synthesize plausible lead molecules. Incorporation of drug pharmacophores into a single entity in order to enhance or amplify its mode of action is gaining popularity in medicinal chemistry. This type of combination of two or more pharmacophores either linked or fused together to create a new molecule is known as molecular hybridization and the resulting hybrid molecules may exhibit synergistic or additive biological effects.Spirocycles & medium-sized heterocycles constitute the core structural elements prevalent in a large number of naturally occurring products and several methods have been established so far to construct these fascinating structures, however increased drug resistance is demanding novel structures. Kabbecondensaion / Claisen rearrangement / Metathesis sequential process was developed to create Benz-annulated Oxepine Spiro Chromanones from 2,4dihydroxy acetophenone. Kabbe condensation and metathesis proceeded with good enantioselectivity and diastereoselectivity respectively. Construction of novel Oxepino Spiro Chromanones as multifunctional modules enables further elaboration in drug discovery.