ABSTRACT

Synthesis, antimicrobial and antioxidant evaluation of quinolines and bis(indolyl)methanes

An improved and practical synthesis of substituted quinolines and bis(indolyl)methanes was achieved under microwave condition using Zn(OTf)2 as catalyst. The synthesized compounds have been screened for antimicrobial and antioxidant activities.

Microwave assisted one-pot synthesis of benzothiazole and benzoxazole libraries as analgesic agents

Microwave assisted synthesis of benzothiazole and benzoxazole libraries via PIFA promoted cyclocondensation of 2-aminothiophenols/2-aminophenols with aldehydes under one-pot condition in good to excellent yields was achieved. twenty compounds have been investigated for their analgesic activity and showed moderate to good activity.

Super acid catalyzed sequential hydrolysis/cycloisomerization of o-(acetylenic)benzamides under microwave condition: Synthesis, antinociceptive and anti-inflammatory activity of substituted isocoumarins
Synthesis of isocoumarins and related compounds via triflic acid promoted hydrolysis/cyclization sequence of 2-(alkynyl)benzamides under microwave condition was achieved. The substrate scope of the reaction was broad to include not only aromatic but also polyaromatic and heteroaromatic motifs, thus highlighting the significance of this methodology. One-pot operation, short reaction time, good chemical yields and excellent regioselectivity are the advantages of this protocol. All the synthesized compounds were evaluated for their antinociceptive and antiinflammatory activities using in vivo rodent models.

Microwave assisted synthesis of spiropyrrrolidines and spiropyrrrolizidines by azomethine ylide cycloaddition of “Baylis-Hillman” adducts derived from $n$-methyl maleimide

The stereoselective synthesis of a series of novel spiropyrrrolidines and spiropyrrrolizidines has been accomplished through an intermolecular 1,3-dipolar cycloaddition of an azomethine ylides with dipolarophiles derived from the Baylis-Hillman reaction of isatins with $N$-methyl maleimide. The anti-microbial activity of the synthesized compounds was studied using disc diffusion method. The synthesized compounds were exhibiting remarkable antimicrobial activity against the strains used when compared to the standards. From the results it is clear that the synthesized compounds possess antimicrobial activity and which can be supported by further research.