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(57) Abstract :
The present invention relates to the synthesis of benzimidazole-oxazepine conjugates by using ultrasonic irradiation. The benzimidazole-oxazepine conjugate compounds (SBOa-j) were synthesized starting from imidazole, subsequent nucleophilic substitution reaction of a solution of imidazole with ethyl chloro acetate, followed by hydrazinated to obtain an acetohydrazide. The acetohydrazide was subjected to Schiff’s reaction with various aromatic aldehydes leading to the formation of a Schiff’s base which was then subjected to cycloaddition reaction with maleic anhydride leading to ring expansion and formation of 1,3-oxazepine-conjugated benzimidazole. Further, treatment with aniline derivatives resulting in imidazole-oxazepine conjugate compounds (SBOa-j).

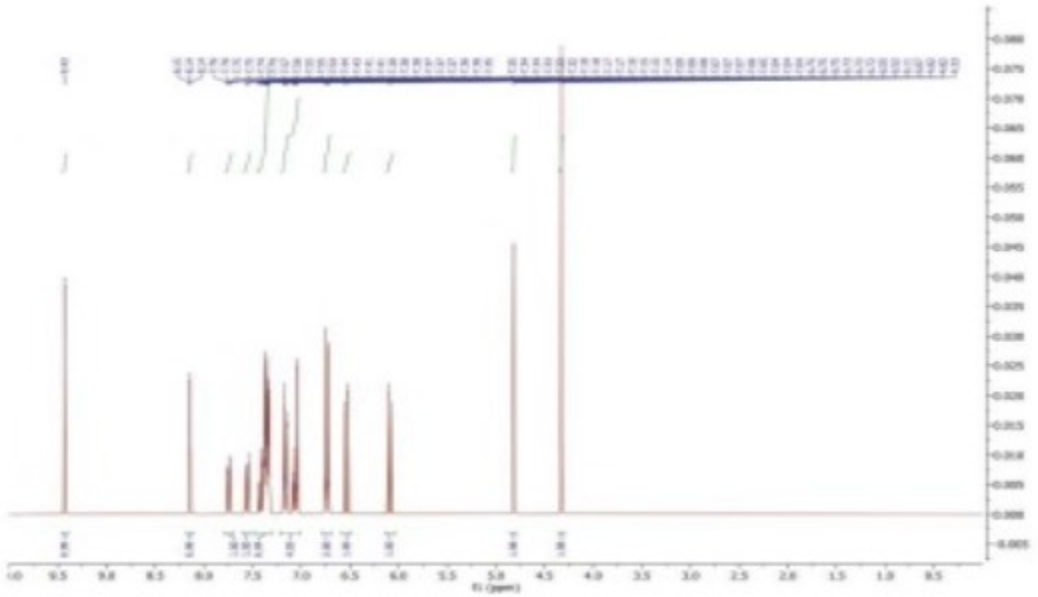

Fig.1 - NMR spectra of SBO_a

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