A pot economical & green synthesis of novel anticancer drugs under lemon juice as a catalyst

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ABSRACT-The utilization of green chemistry techniques are dramatically reduces chemical wastes and reaction time as recently have been proven in several organic synthesis & chemical transformations. In my work I developed the new protocol for the synthesis of as possible anticancer drugs using lemon juice as a catalyst.

KEY WORDS- Green Chemistry, Lemon Juice, Aldehydes, Heterocycles, Anticancer Drugs, Schiff bases,

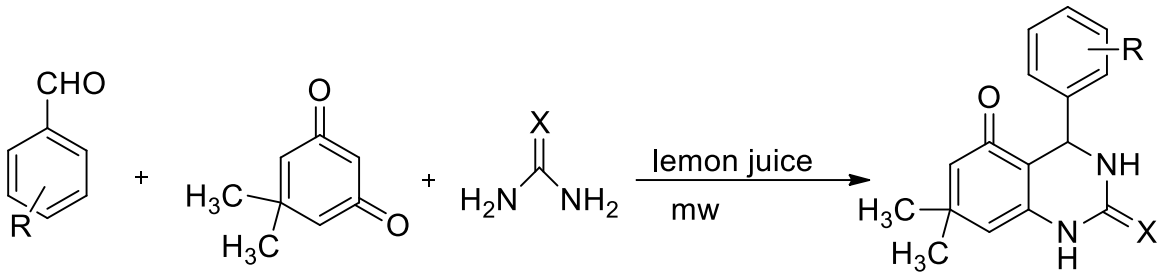
INTRODUCTION- The recent interest in green chemistry has posed a new challenges for organic synthesis in that new reaction condition need to be found which reduces the emission of volatile organic solvent and the use of hazardous toxic chemical [(1)].Due to these beneficial properties , concern for the environmental demands and strong interest in the development of green chemistry. New sustainable catalyst and new environmentally benign process [(2)] have be investigated which are both economically and technologically feasible [(3)] . Catalyst play a pivotal role in most of the organic reaction & it is true , a field of topical interest . In addition to develop novel catalytic system including nano-material & polymer grafting , still there is also a tremendous scope in screening commercially available low cost & less toxic agents that can carry out an organic transformation of choice in an efficient manner under ecofriendly condition [(4-7)] . Nitrogen and oxygen-containing heterocycles serve both as a biomimetic and reactive pharmacophores due to their diverse therapeutic property thus, plays vital role in natural and

synthetic organic chemistry [(8-9)]. The development of environmentally benign and clean protocol

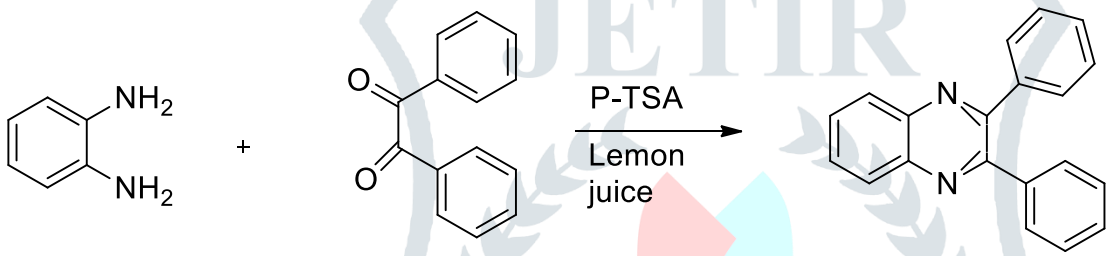
has become the goal of synthetic methodology in aqueous conditions as water plays a vital role in life processes, ambient reaction medium, unique reactivity and selectivity in organic synthesis[(10-12)] .

RASEARCH METHODOLOGY

SCHEME-1



SCHEME -2



CONCLUSION- The multi component one –pot reaction for the concentration of C-C bond have give new way to a large variety of important compounds as possible anticancer drugs.

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