



SDI Review Form 1.6

Journal Name:	International Research Journal of Pure and Applied Chemistry
Manuscript Number:	Ms_IRJPAC_35918
Title of the Manuscript:	Optimization of Synthesis Process of 4-Methylquinazoline
Type of the Article	

General guideline for Peer Review process:

This journal's peer review policy states that **NO** manuscript should be rejected only on the basis of '**lack of Novelty**', provided the manuscript is scientifically robust and technically sound.

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PART 1: Review Comments

	Reviewer's comment	Author's comment (if agreed with reviewer, correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)
Compulsory REVISION comments	1) The use of this reaction conditions (BF₃.Et₂O at 150 °C for 6h) is already disclosed in ref 9, then what the new authors have achieved in the current work by performing the optimization process? Also it is not clear what was the %yield reported earlier in ref 9? And what % of improvement in yield has been achieved in the current work? 2) 2nd page: According to the typical procedure the yield is 85.7% whereas under the same condition in Table 1, Entry 4 the yield is 74.6%, this is confusing. Also all yields should be presented in round figure i.e. 86% instead of 85.7% (entry 4 of Table 2 shows 85.8% yield, so which is correct? 85.7% or 85.8%). 3) Table 1: the scheme suggest Lewis acid has been used, but in AcOH and H₂SO₄ (entry 6 and 7) are not Lewis acids. 4) Characterization of compound is incomplete: ¹³CNMR, MS and IR data should be provided. All the ¹HNMR signals should be assigned e.g. "2.91 (s, 3H, Me)" instead of "2.91 (s, 3H)".	1) Under the reaction conditions (BF₃-Et₂O at 150 °C for 6h), the optimization of the reaction conditions showed that the 2-aminoacetophenone:BF₃-Et₂O increased to 1:0.5, and the yield was improved. Increase the amount of BF₃-Et₂O, the reaction rate began to decrease, 1:0.5 is the best proportion, the highest yield is 86%. the %yield reported earlier in ref 9 were below 75%. 2) The ratios of 2nd page and Table 1, Entry 4 2-aminoacetophenones : BF₃-Et₂O were different, 1:0.5 and 1:0.36, respectively. The ratio of 2-aminoacetophenone to BF₃-Et₂O was 1:0.5, and the yield was 86%. 85.7% is correct. 3) Corrected. 4) ¹³CNMR, MS have been added. 5) Modified
Minor REVISION comments	In the introduction importance of quinazolines has been presented, however the current paper cover only 4-methyl quinazoline. Better focus on this molecule.	Thanks a lot for the valuable advices. We have added some words about the researches about 4-methyl quinazoline.
Optional/General comments	The use of some substituted 2-aminoacetophenones in this method may be examined.	Thanks for the advices, However, we want this paper be focused on the synthesis of 4-methyl quinazoline like the title of this paper.