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Facile Synthesis, Characterization of Novel Schiff Bases and N-Nucleosides Bearing Quinazoline Moiety and Evaluation of Their Antimicrobial Effects

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ABSTRACT

*The present work describes convenient synthesis of the novel Schiff bases **4, 5** and **6** by reaction of each of the previously synthesized quinazolinones **1, 2** and **3** with p-methoxybenzaldehyde. [2+2] Cycloaddition Reaction of the former Schiff bases within phenylisothiocyanate affording azatedine derivatives **7** and **8**. Also, the quinazolines **1** and **2** could be reacted with α-bromoglucose tetra acetate giving peracetylated N-glycosides of quinazolinones **9** and **10** which were then deacetylated to afford N-glycosylated quina zolinones **11** and **12** respectively. On the other hand, Dapsone was reacted with p-methoxyacetophenone to afford 4-[(4-aminophenyl) sulfonyl]-N-[(1E)-1-(4-methoxyphenyl)ethylidene]aniline 1**5** which was, in turn, reacted with 4-chloro-2-ethoxyquinazoline 1**6** affording Schiff base 1**7**. The latter was reacted with 2-furoyl chloride affording Schiff base **18**. The structures of the novel Schiff bases and N-glycosides were confirmed by the IR, ^{1}H-NMR, ^{13}C-NMR, MS and elemental analysis. The antimicrobial activity for these synthesized compounds could outline, the moderate activity was observed with new quinazoline compounds which proved to possess marked activity against E. coli, S. aureus and C. albicans. The strong activity has observed nearly with the most synthesized compounds.*

Keywords: quinazolin-4(3H)-one, *N*-glycosylated quinazoline, Dapsone, Schiff base, Azatedine and Arylidine.
