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Short Note

4-[(Anthracen-9-ylmethylene)amino]-1,5-dimethyl-2-phenyl-1,2-dihydropyrazol-3-one

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Abstract: The title compound, 4-[(anthracen-9-ylmethylene)amino]-1,5-dimethyl-2-phenyl-1,2-dihydropyrazol-3-one (**3**), was synthesized in high yield by reaction of anthracene-9-carbaldehyde and 4-aminoantipyrine in ethanol. The structure of this new compound was confirmed by elemental analysis, IR, ^{1}H NMR, ^{13}C NMR and GC-MS spectral data.

Keywords: Schiff base; anthracene aldehyde; 4-aminoantipyrine

Nitrogen-atom containing heterocyclic compounds are an important subset of the natural products that exhibit biological activities, including antitumor [1], antiamoebic [2], antimicrobial [3] and anti-inflammatory [4] activities. Pyrazol-3-one presents an interesting group of compounds, many of which possess widespread pharmacological properties such as analgesic, antipyretic, and antirheumatic activities [5]. These derivatives are also well known for their pronounced anti-inflammatory properties [6] and are used as potent antidiabetic agents [7] Pyrazol-3-one containing Schiff bases can show even increased biological activity [8]. Since the pyrazol-3-one Schiff base moiety seems to be a possible pharmacophore in various pharmacologically active agents, we decided to synthesize a new pyrazol-3-one containing a Schiff base unit by reaction of anthracene-9-carbaldehyde with 4-aminoantipyrine.