

# 1,3-Dipolar Cycloaddition of Four Hydrazonoyl Chlorides to $\beta$ -Diketones and $\alpha,\beta$ -Unsaturated Ketones

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The 1,3-dipolar cycloaddition of four hydrazonoyl chloride derivatives with the sodium salt of unsymmetrical  $\beta$ -diketones (benzoylacetone) offers a versatile method for the regioselective synthesis of 2*H*-pyrazoles in a similar fashion to the cycloaddition of the nitrilimides with  $\alpha,\beta$ -unsaturated ketones and esters; the structures of the prepared isomeric pyrazole and pyrazoline derivatives are established by spectroscopic and chemical methods.