SIMPLE ONE-POT THREE COMPONENTS SYNTHESIS
OF PYRIDO[2,3-D]PYRIMIDINE-2,4-DIONE

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Pyridopyrimidines are annelated uracils which have received considerable attention over the past years due to their wide range of biological activity. Compounds with these ring systems have diverse pharmacological activity such as antitumour [1], cardiotonic [2], hepatoprotective [3].

In view of our general interest in the multi-component condensations (MCCs) [4], we report herein, a simple, facile, rapid and efficient MCCs for the preparation of some new pyrido[2,3-d]pyrimidine-2,4-dione derivatives by reaction of ninhydrin, alkylcyanoacetate and 6-aminouraciles in ethanol under reflux conditions.

We found when 6-aminouracil 3 was added to a mixture of ninhydrin 1 and alkylcyanoacetate 2 in refluxed ethanol, pyrido[2,3-d]pyrimidine-2,4-dione 4, were formed and isolated in good to excellent yields.

REFERENCES