PR-6. BIO-BASED TRIACETIC ACID LACTONE IN THE SYNTHESIS OF HETEROCYCLES VIA THE ENAMINONE FORMATION

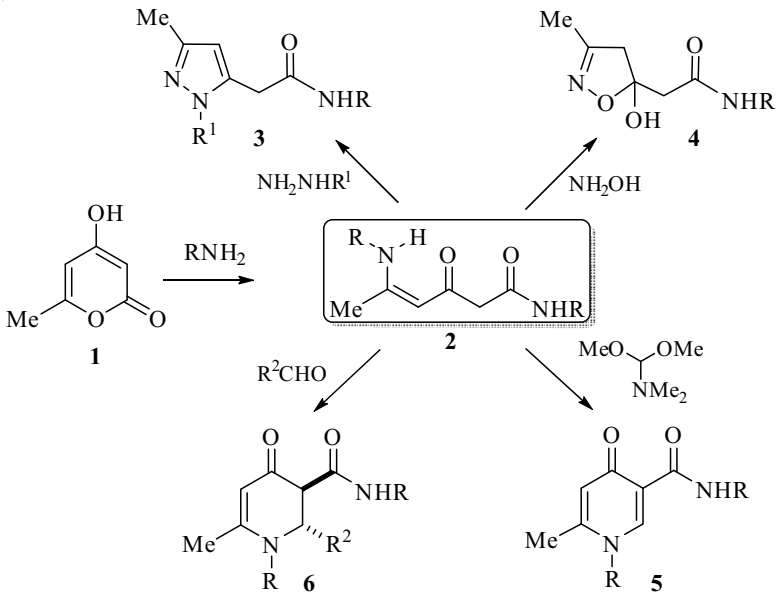
A. I. El-Tantawy[1,2], D. L. Obydennov[1], V. Ya. Sosnovskikh[1]

[1] I. Ya. Postovsky Institute of Organic Synthesis UB RAS,
S. Kovalevskoy/Akademicheskaya St., 20/22, Yekaterinburg, 620990, Russia

[2] Department of Physics and Engineering Mathematics, Faculty of Electronic Engineering,
Menoufia University, Menouf, 32952, Egypt

E-mail: dobydennov@mail.ru

Triacetic acid lactone (TAL, **1**) is a bioprivileged molecule readily available either through chemical or biological transformations. We found that lactone **1** can convert into reactive and multifunctional polycarbonyl intermediates **2** serving as C-6 building blocks for the construction of organic compounds. TAL undergoes a ring opening transformation with aliphatic and aromatic amines, including bioavailable amines, under solvent free conditions or in EtOH to give carbamoylated enaminones **2** [1]. These polyfunctional compounds react regioselectively with hydrazines and hydroxylamine to form pyrazolyl- and (isoxazolinyl)acetoamides **3** and **4**. Also enaminones **2** have been converted into pyridone-3-carboxamides **5** and 2,3-dihydropyridones **6** under the action of DMA-DMF[1] and aldehydes [2], respectively.



References

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