تم تحضير العديد من مركبات البيرلووايزوكسازول و البيرولوتراياول باستخدام مركبات ٤ -سيانو-٣-بيروليدنون.

New pyrrolo[3,4-c]isoxazoles were synthesized from 4-cyanopyrrolidin-3-ones as key intermediates in two steps. Pyrrolo[2,3d][1,2,3]triazoles and triazolo[4,5-c]pyridazine were obtained from 2-arylhydrazono-4-cyano-1-(4methoxyphenyl)-3-oxopyrrolidines by refluxing with PhN2H3 in either EtOH or glacial AcOH. Aldol self-condensation of 1-aryl-4-cyanopyrrolidin-3ones afforded dipyrrolo[3,2-b:3',4'-d]pyrans.