

# ***N*-Alkyl Derivatives of L-Glutamine As Inhibitors of Glutamine-Utilizing Enzymes**

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A general, facile method to synthesize the *N*-alkyl and *N,N*-dialkyl derivatives of L-glutamine **1a–d** from L-glutamic acid as a starting substrate is presented. The obtained compounds are shown to inhibit three different glutamine-utilizing enzymes, namely: glutaminase, -glutamyl transpeptidase, and glucosamine-6-phosphate synthase, with inhibitory constants within the millimolar range.

*Key words:* L-Glutamine Derivatives, Synthesis, *N*-Alkylamide Formation