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PROCEEDINGS AND ABSTRACTS

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SYNTHESIS AND EVALUATION OF NOVEL MANNICH BASES OF HYDROXY-4H-PYRAN-4-ONES WITH ANTICONVULSANT ACTIVITY

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The search for antiepileptic compounds with more selective activity and lower toxicity continues to be an area of investigation in medicinal chemistry [1]. Many patients with epilepsy fail to experience adequate control of their seizures, despite the optimal use of available antiepileptic drugs. Other patients do so only at the expense of significant toxic side effects [2]. The chemical structures of the synthesized compounds have been confirmed by IR, ¹H-NMR, mass spectral data and elemental analysis.

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\begin{align*}
\text{R} &= \text{N}_\text{O}, \quad \text{N}_\text{N}, \quad \text{N}_\text{CH}_3, \quad \text{N}_\text{N}_\text{N}, \quad \text{N}_\text{N}_\text{N}_\text{H}_\text{Cl}
\end{align*}
\]

Their anticonvulsant activities were determined by maximal electroshock (MES) and subcutaneous metrazol (ScMet) tests according to the ADD (Antiepileptic Drug Development) program Phase I. Neurotoxicity of the compounds was evaluated by rotarod test [3].

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References