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**New furoxan derivatives for the treatment of ocular hypertension**

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**Abstract**. A small series of water-soluble NO-donor furoxans bearing a basic center at the 4-position, having a wide lipophilic-hydrophilic balance range, and endowed with different NO-release capacities, were synthesized and characterized. Selected members were studied for their IOP-lowering activity in the transient ocular hypertensive rabbit model at 1% dose. The most effective IOP-lowering products were compounds **3** and **7**, whose activity 60 min after administration was similar to that of Timolol. Notably, **7** was characterized by a long-lasting action. The IOP-lowering activity in this series of products appeared to be modulated by the lipophilic-hydrophilic balance rather than by the NO-donor capacity.