

Short Communication

Synthesis and Electrochemistry Evaluation of Multivalent *o*-Aminobenzamides and Quinazoline-2,4-diones.

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doi: 10.20964/2018.01.63

Received: 4 August 2016 / Accepted: 21 September 2017 / Published: 16 December 2017

The *o*-aminobenzamides (OAB) and quinazoline-2,4-diones (QZD) are alkaloids with important biological properties such as sedatives, antipsychotics and anticonvulsants, these last properties can be evaluated by electrochemistry methods, using its electron transfer capacity. In this study six compounds (OAB, QZD) were synthesized and characterized, using spacers groups to link the functional moieties (presents on the mono, di and tri substituted systems of each alkaloid kind), when the spacers groups are present, an increase of pharmacological properties has been shown. We carried on electrochemistry evaluations to the synthesized compounds to predict the electron transfer. The results show a single oxidation potential (OP) for the mono and di-substituted compounds (OAB, QZD), and two different OP when the system is trimeric (OAB, QZD). The intensity of the OP signals in the open systems (OAB) is considerable higher in comparison with the closed systems (QZD), these oxidation potentials are assignation at amine groups, and the tertiary amines of trimeric compound present the highest intensity oxidation signals in comparison with secondary amines. The most favorable compound to realize the electron transfer are the open trimeric system.

Keywords: *o*-aminobenzamides, quinazoline-2.4-diones, oxidation potentials, multivalent systems.

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