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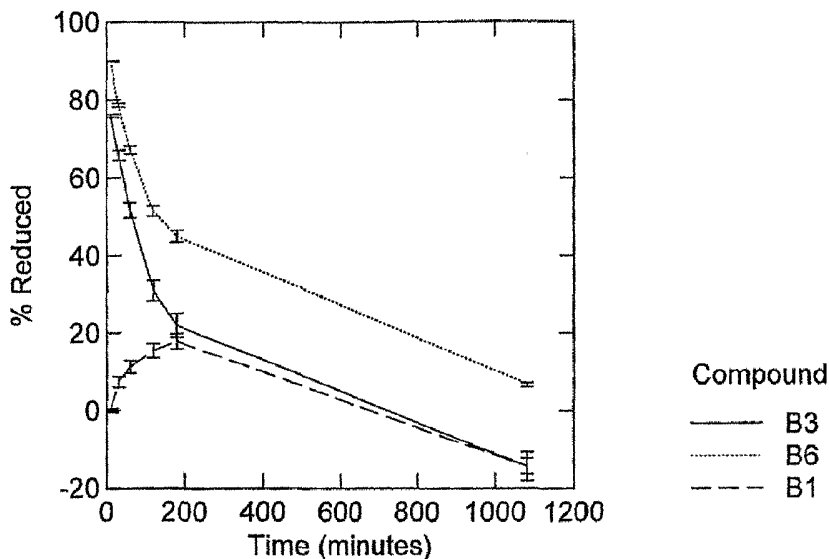
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(54) Title: 3,7-DIAMINO-10H-PHENOTHIAZINE SALTS AND THEIR USE



(57) Abstract: This invention pertains generally to the field of phenothiazine compounds, and more particularly to certain stably reduced phenothiazine compounds, specifically, certain 3,7 diamino-10H-phenothiazine (DAPTZ) compounds of the following formula wherein: each of R¹ and R² is independently selected from: -H; C₁₋₄alkyl; C₂₋₄alkenyl; and halogenated C₁₋₄alkyl; each of R^{3NA} and R^{3NB} is independently selected from: -H; C₁₋₄alkyl; C₂₋₄alkenyl; and halogenated C₁₋₄alkyl; each of R^{7NA} and R^{7NB} is independently selected from: -H; C₁₋₄alkyl; C₂₋₄alkenyl; and halogenated C₁₋₄alkyl; each of HX¹ and HX² is independently a protic acid; and pharmaceutically acceptable salts, solvates, and hydrates thereof. These compounds are useful as drugs, for example, in the treatment of tauopathies, such as Alzheimer's disease, and also as prodrugs for the corresponding oxidized thioninium drugs (for example, methylothioninium chloride, MTC).

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