# EVALUATION OF ANTIRADICAL ASSAYS USED IN DETERMINING THE ANTIOXIDANT CAPACITY OF PURE COMPOUNDS AND PLANT EXTRACTS

Sandro de Oliveira[a], Glalci Alves de Souza[a], Camila Rodrigues Eckert[a], Thuany Alves Silva[a], Edmar Silva Sobral[b], Oriana Aparecida Fávero[b], Marcelo José Pena Ferreira[b], Paulete Romoff[b] and Wilhelm Josef Baader[a],*
[a]Departamento de Química Fundamental, Instituto de Química, Universidade de São Paulo, Av. Prof. Lineu Prestes, 748, Bloco 12 Superior, 05508-000 São Paulo – SP, Brasil
[b]Universidade Presbiteriana Mackenzie, Rua da Consolação, 930, 01302-907 São Paulo – SP, Brasil
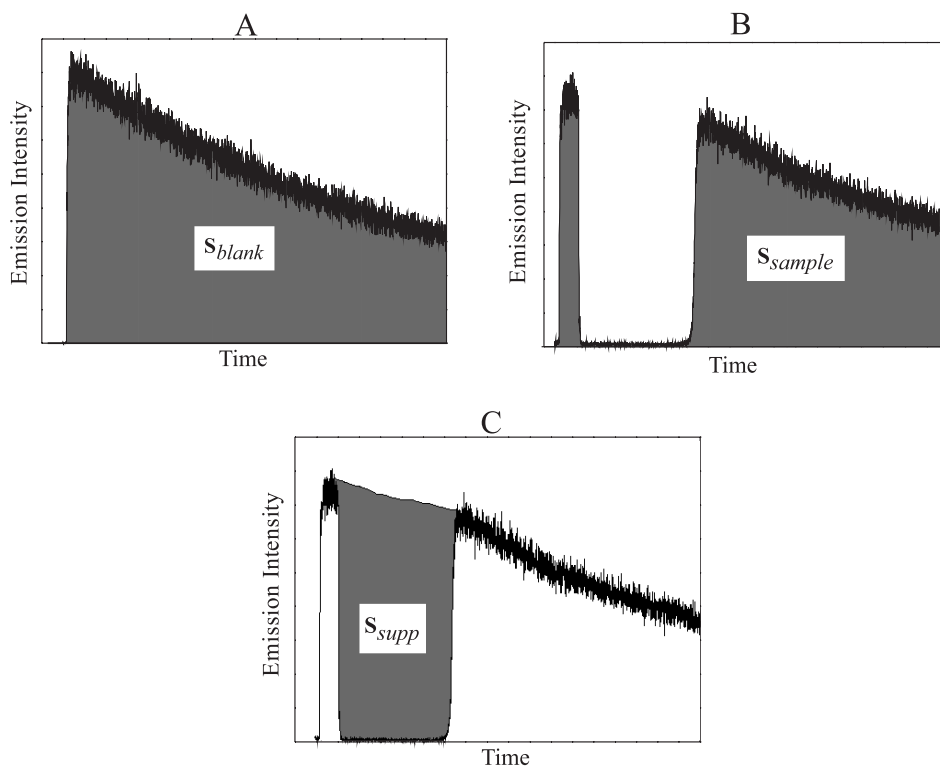
Figure 1S. ***A:*** *Light emission kinetics of the luminol/hemin/H_2O_2 system in standard conditions (S_{blank}).* ***B:*** *Addition of an antiradical compound after 100 s (S_{sample}).* ***C:*** *Determination of the suppression area ($S_{supp} = S_{blank} - S_{sample}$)*
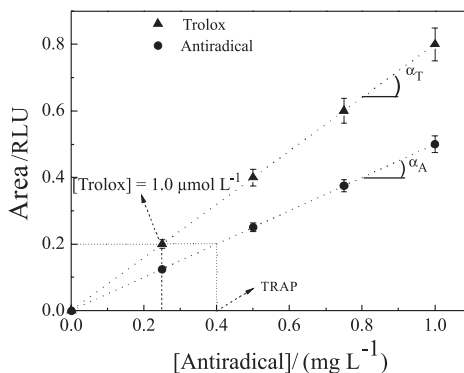
*Figure 2S. Linear correlation between the [**Trolox**®] or [antiradical sample] and the suppression area for the determination of the **Trolox**® percentage (%**Trolox**®)*

*e-mail: wjbaader@iq.usp.br
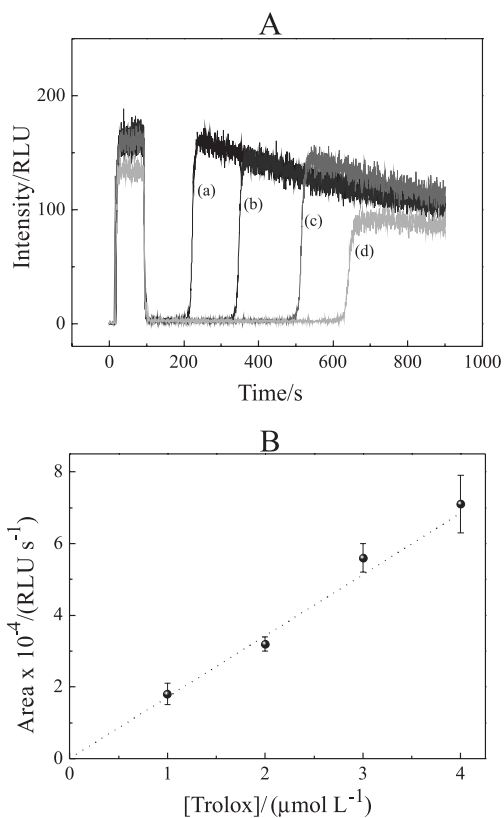
Figure 3S. A: *Emission intensity decay kinetics of the luminol/hemin/H$_2$O$_2$ system at different [Trolox®]: [Trolox®] = (a) 1.0 μmol L^{-1}, (b) 2.0 μmol L^{-1}, (c) 3.0 μmol L^{-1}, and (d) 4.0 μmol L^{-1}. **B**: Linear correlation between the suppression area and [Trolox®]. Area = (1.71 ± 0.06) × 10^4 × [Trolox®]; R^2 = 0.99345*
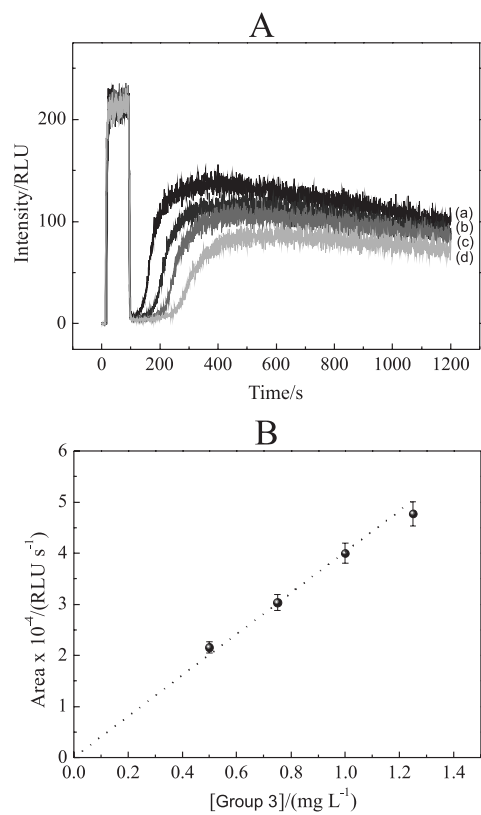
Figure 4S. A: *Emission intensity decay kinetics of the luminol/hemin/H$_2$O$_2$ system on the addition of different concentrations of Group 3 sample: [Group 3] = (a) 0.5 mg L^{-1}, (b) 0.75 mg^{-1}, (c) 1.0 mg L^{-1}, and (d) 1.25 mg L^{-1}. **B**: Linear correlation between the suppression area and the Group 3 sample concentration. Area = (3.97 ± 0.05) × 10^4 × [Group 3]; R^2 = 0.98885*