CONSTRUCTION AND APPLICATION OF A PORTABLE MICROCONTROLLED TURBIDIMETER FOR THE IN SITU DETERMINATION OF SULFATE

Vagner B. dos Santos, Thiago B. Guerreiro, Ronaldo C. Faria e Orlando Fatibello-Filho*
Departamento de Química, Universidade Federal de São Carlos, Centro de Ciências Exatas e de Tecnologia, CP 676, 13560-970, São Carlos-SP, Brasil

Willian T. Suarez
Departamento de Química, Universidade Federal de Viçosa, Centro de Ciências Exatas e Tecnológicas, 36570-000, Viçosa-MG, Brasil

**Figure 1S.** Calibration curve of the temperature sensor embedded in the turbidimeter. Data are in arbitrary units (A.U.) refer to AD units. Coefficient of correlation (r) = 0.997. For construction of this curve an average of 5 replicated for each point were performed and a RSD of 0.1 % was found

**Figure 2S.** Stability evaluation for the microcontrolled turbidimeter in battery module: (1) in an acclimatized room at 18 °C and (2) field analyses with a variation of temperature from 18 °C to 29 °C. Only a cuvette with deionized water was used

**Figure 3S.** Spectra of humic acids from Turf (peat) and vermicompost extracted with NaHCO₃

**Figure 4S.** Spectra of the supernatant solution extracted of the treatment of humic acids (Turf and Vermicompost) with 0.1 mol L⁻¹ HCl

*e-mail: bello@ufscar.br