

Synthesis of Hydrotalcite-Supported CdTe Semiconductor Nanocrystals for Electrochemical Detection of Ciprofloxacin

*Sanny W. M. M. Carvalho,^a Tiago B. S. Santana,^b Charlene R. S. Matos,^a Luiz P. Costa,^c Eliana M. Sussuchi^{ib}^a and Iara F. Gimenez^{ib}^{*a}*

^a*Programa de Pós-Graduação em Química, Universidade Federal de Sergipe, Av. Marechal Rondon s/n, 49100-000 São Cristóvão-SE, Brazil*

^b*Departamento de Farmácia, Universidade Federal de Sergipe, Av. Marechal Rondon s/n, 49100-000 São Cristóvão-SE, Brazil*

^c*Programa de Pós-Graduação em Química, Universidade Federal do Amazonas (UFAM), Av. Rodrigo Otávio, No. 6200, Campus Senator Arthur Virgílio Filho, Setor Norte, Coroadó I, 69077-000 Manaus-AM, Brazil*

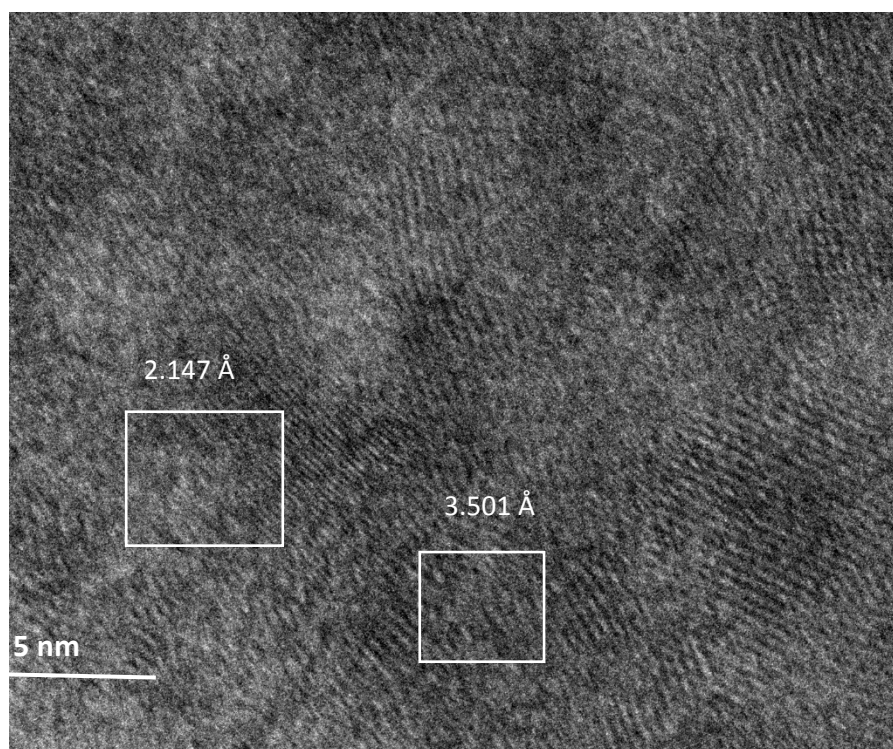


Figure S1. HRTEM image of the hybrid material LDH-CdTe showing the d spacings measured, assigned to (101) and (103) close to 3.52 and 2.11 Å, which are the standard values for wurtzite CdTe.

*e-mail: iara.gimenez@gmail.com

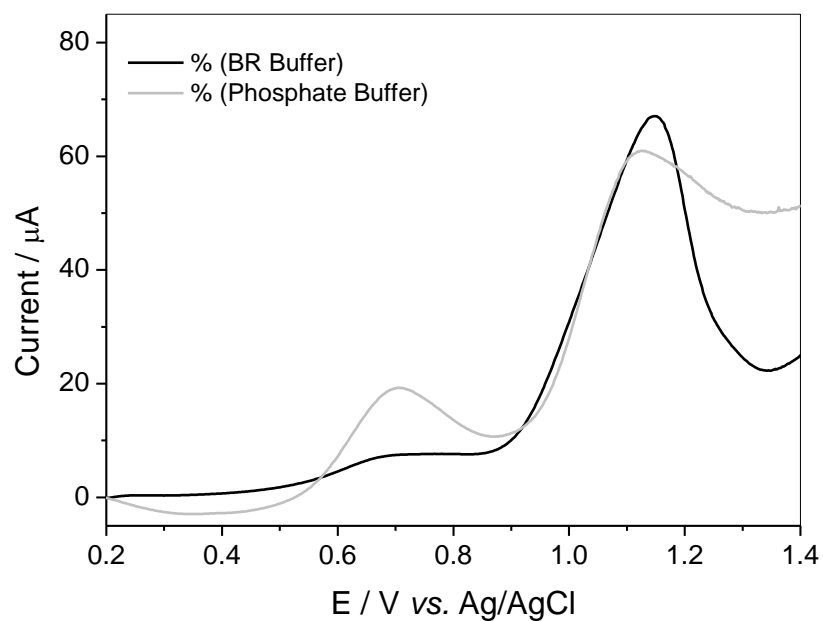


Figure S2. Anodic differential pulse voltammograms for the detection of CPX in different electrolytes: BR buffer and phosphate buffer. The experimental conditions were pH 6, 30% (m/m) of MCPE/LDH-QD, 300 s accumulation time and scan rate of 20 mV s^{-1} .

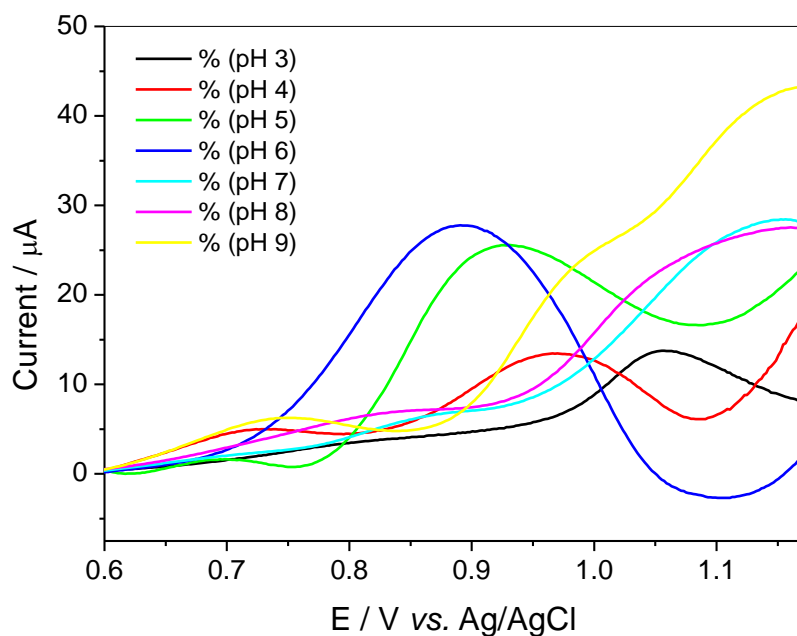


Figure S3. Anodic differential pulse voltammograms for the detection of CPX in different pH values. The experimental conditions were pH 6, 30% (m/m) of MCPE/LDH-QD, 300 s accumulation time and scan rate of 20 mV s^{-1} .

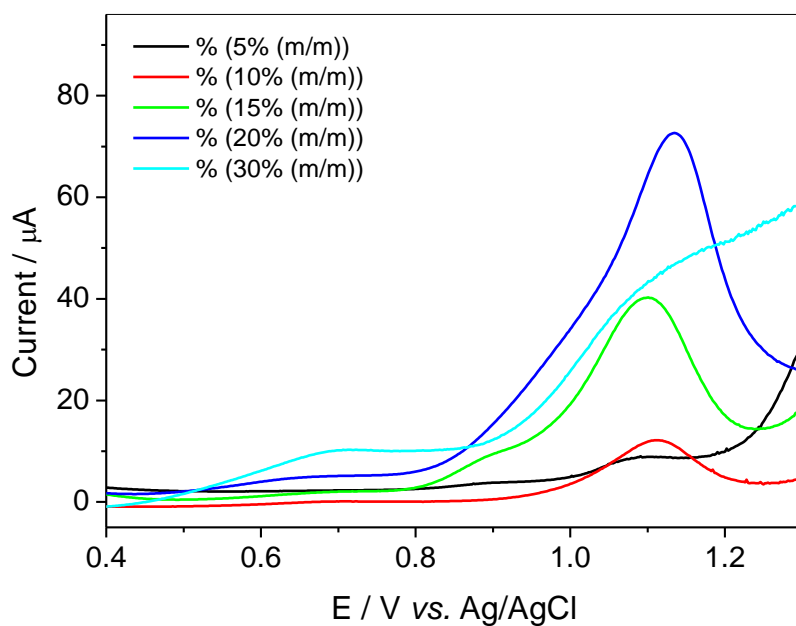


Figure S4. Anodic differential pulse voltammograms for the detection of CPX with electrodes modified with different amounts of LDH-QD. The experimental conditions were pH 6, 30% (m/m) of MCPE/LDH-QD, 300 s accumulation time and scan rate of 20 mV s^{-1} .

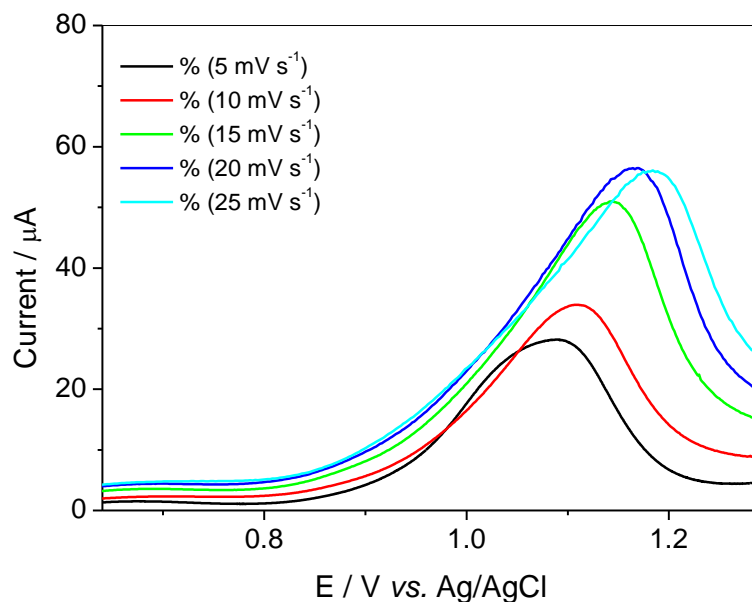


Figure S5. Anodic differential pulse voltammograms for the detection of CPX with different scan rates. The experimental conditions were pH 6, 20% (m/m) of MCPE/LDH-QD, 300 s accumulation time.

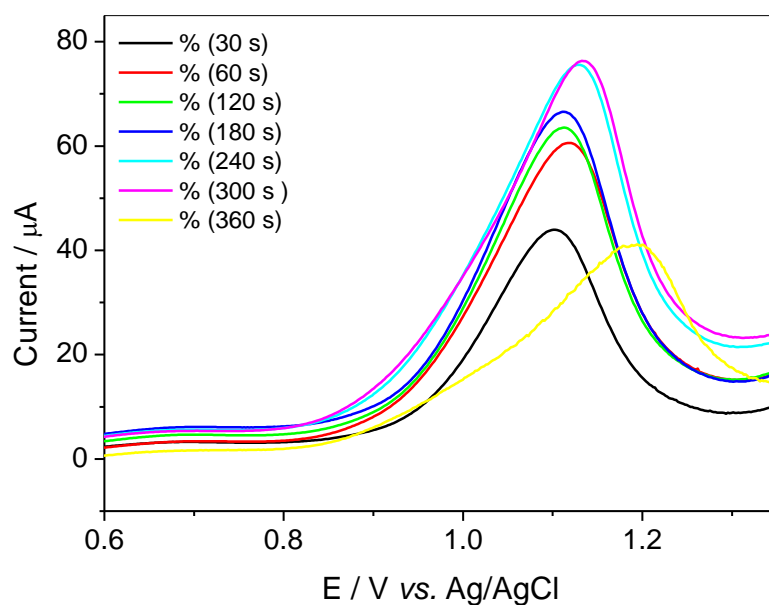


Figure S6. Anodic differential pulse voltammograms for the detection of CPX with electrodes modified with different accumulation times. The experimental conditions were pH 6, 20% (m/m) of MCPE/LDH-QD, and scan rate of 20 mV s^{-1} .