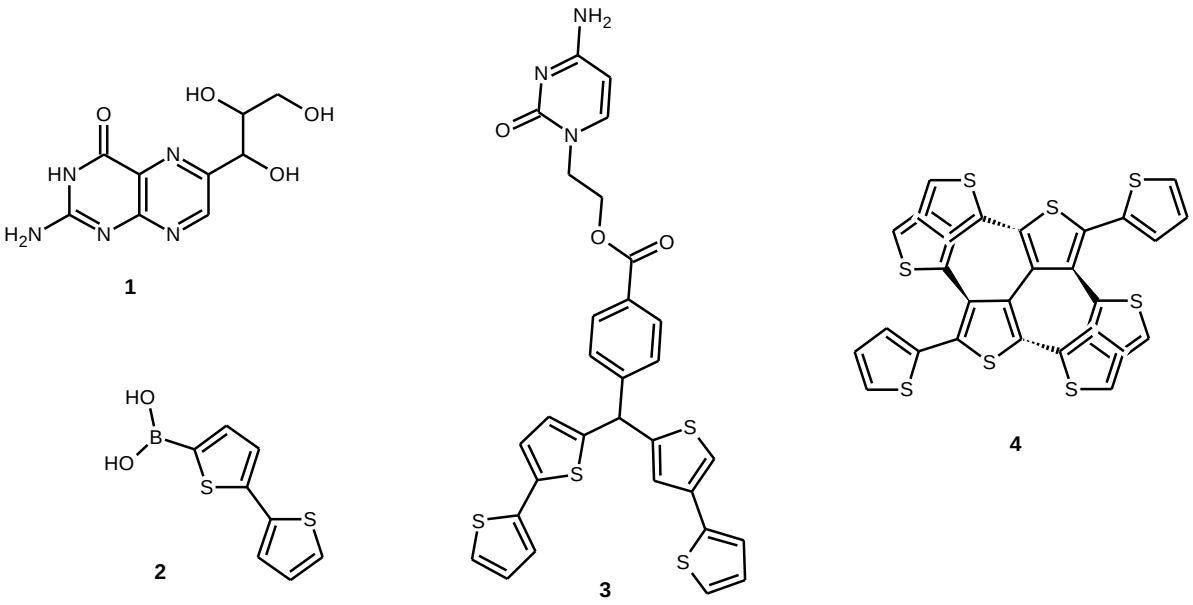

Fig.1 The structural formulas of neopterin **1**, 2,2′-bithiophene-5-boronic acid **2**, 2-(cytosin-1-yl)ethyl *p*-bis(2,2'-bithien-5-yl)methylbenzolate **3**, and 2,4,5,2',4',5'-hexa(thiophene-2-yl)-3,3'-bithiophene **4.**

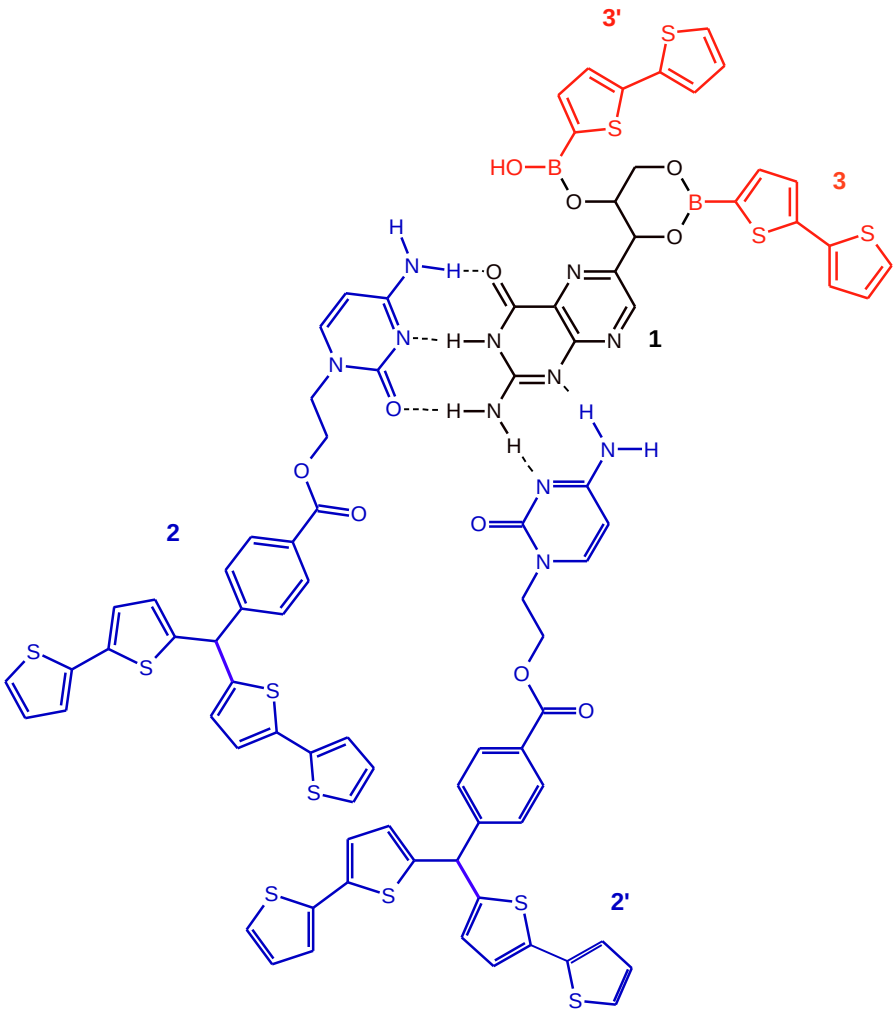

Fig. 2 The proposed structural formula of the pre-polymerization complex of neopterin **1** both functional monomers, 2,2′-bithiophene-5-boronic acid **2** and **2'**, 2-(cytosin-1-yl)ethyl *p*-bis(2,2'-bithien-5-yl)methylbenzolate **3** and **3'**.

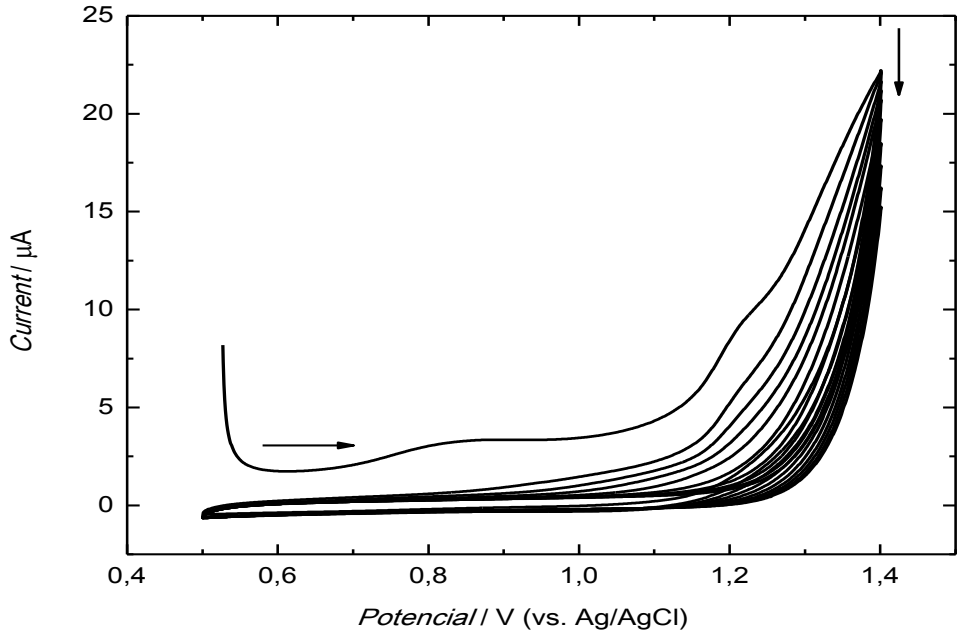

Fig. 3 Potentiodynamic curves of electropolymerization of functional monomers **1** and **2** as well as the cross-linking monomer **3** in the presence of the neopterin template on the 1-mm diameter Pt disk electrode. The molar ratio of the template to the functional monomer 1, to the functional monomer 2, to the cross-linking monomer was 1 : 2 : 2 : 6 in the solution for electropolymerization of the 0.1 M (TBA)ClO4 in acetonitrile to 0.1 M NaOH volume ratio of 9 : 1. Twelve potential cycles were recorded at the potential scan rate of 50 mV/s.

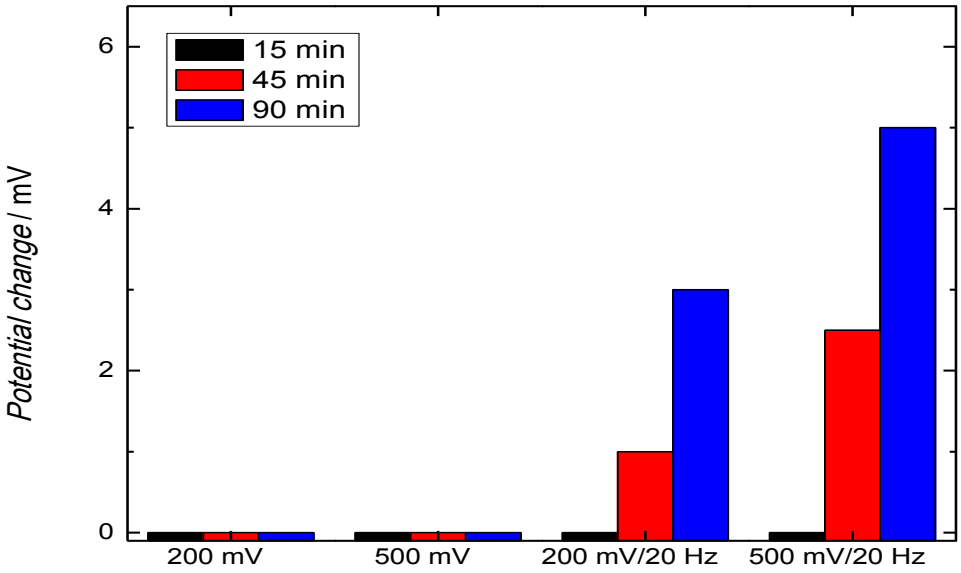

Fig. 4 The histogram of the potential change accompanying removal of the neopterin template under different extraction conditions.

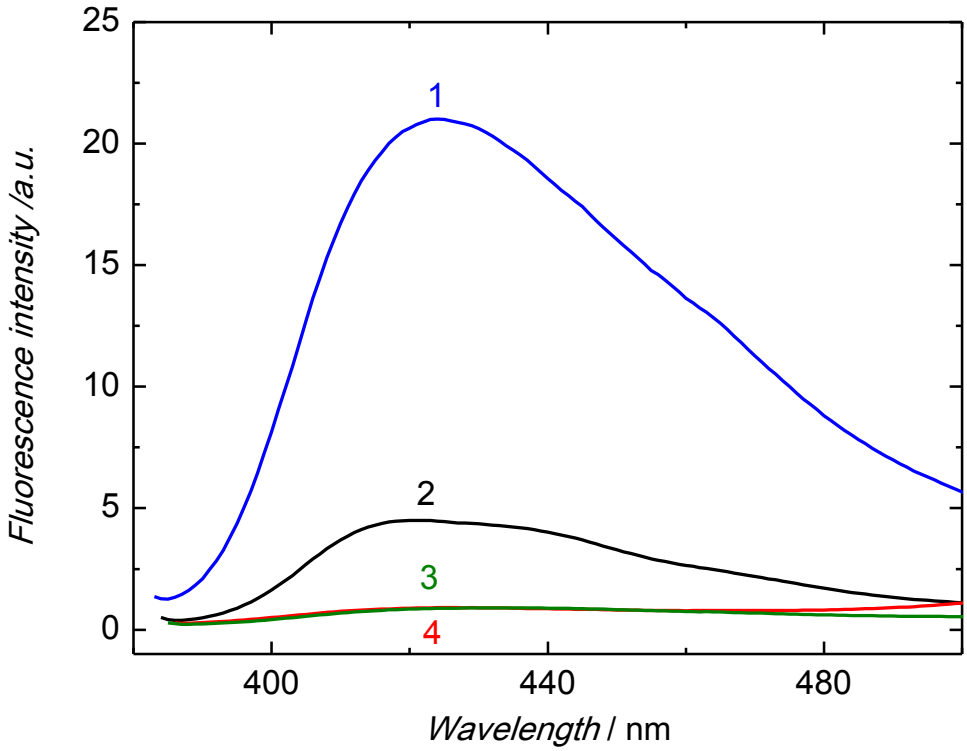

Fig. 5 The fluorescence spectra for (*1*) the drop coated film of neopterin (dissolved in DMSO), (*2*) the neopterin-templated MIP film, (*3*) the MIP film after neopterin extraction, (*4*) the NIP film; all films were deposited on the gold coated glass slides.

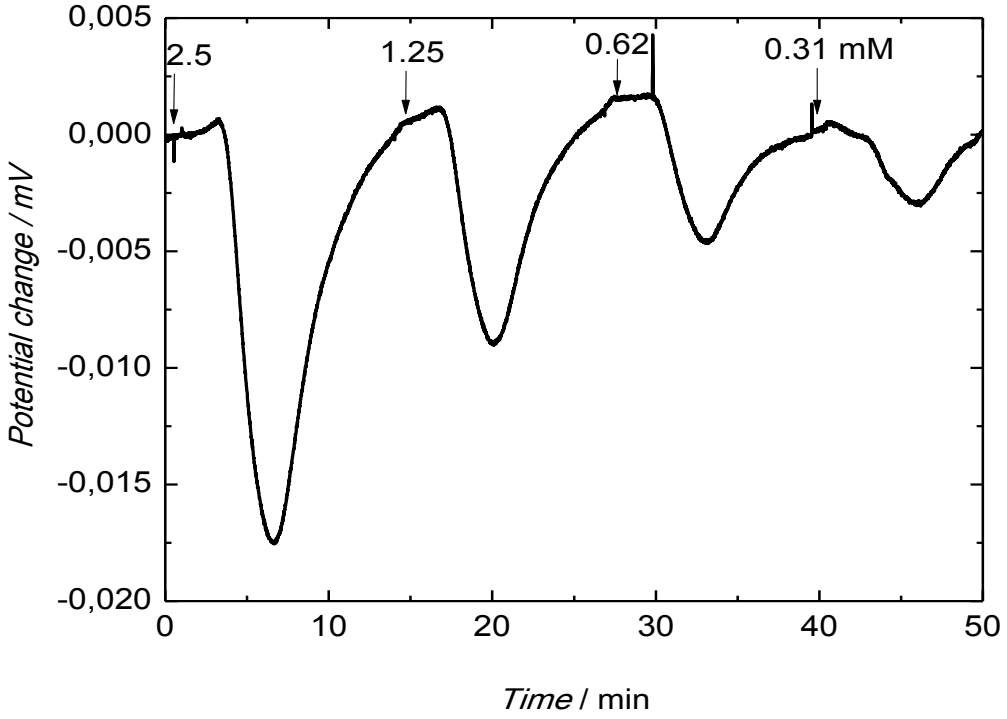

Fig. 6 The open-circuit potential change with time after injection of 100-µL samples of neopterin of different concentrations, indicated with numbers at peaks under flow injection analysis (FIA) conditions for the neopterin template extracted MIP-neopterin film. The 0.1 M carbonate buffer, which was 0.1 M in KF (pH = 10) served as the carrier solution. The carrier solution flow rate was 35 µL min^{-1}.

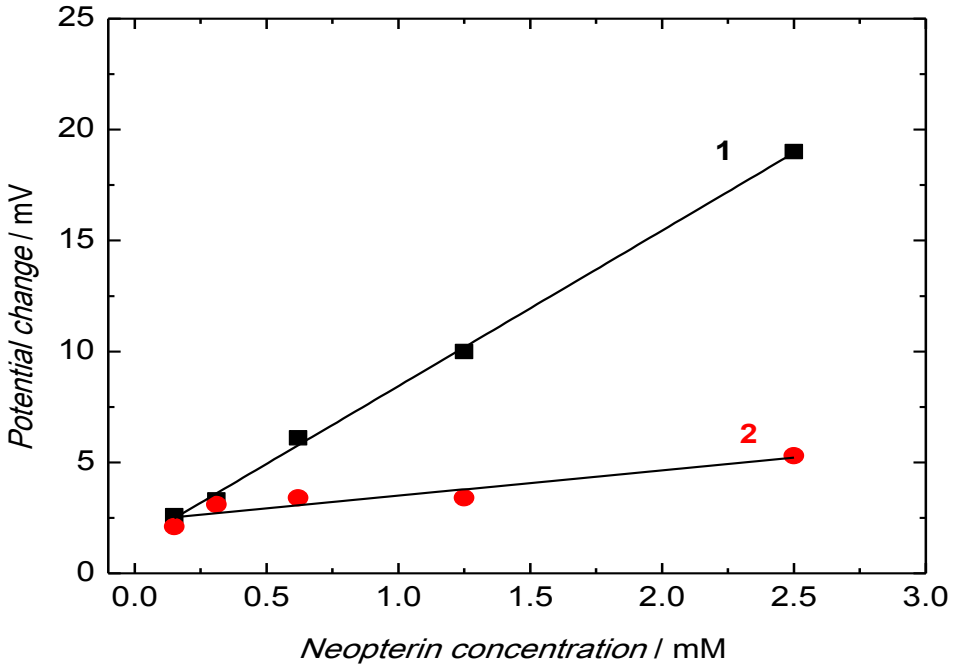

Fig. 7 Calibration curves for neopterin on the 1-mm diameter Pt disk elctrode coated with the film of (1) MIP and (2) NIP.

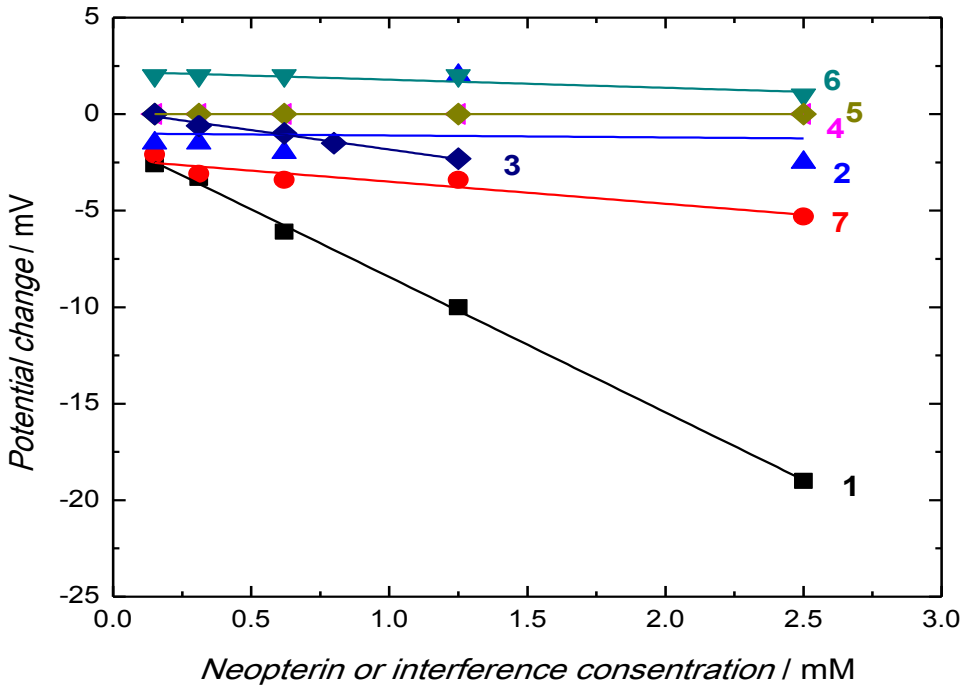

Fig. 8 Calibration plots for (*1*) neopterin, (*2*) pterin, (*3*) 6-biopterin, (*4*) creatinine, (*5*) glucose, and (*6*) xanthine at the MIP-neopterin film coated Pt electrode as well as (*7*) neopterin at the NIP film coated on the Pt electrode.