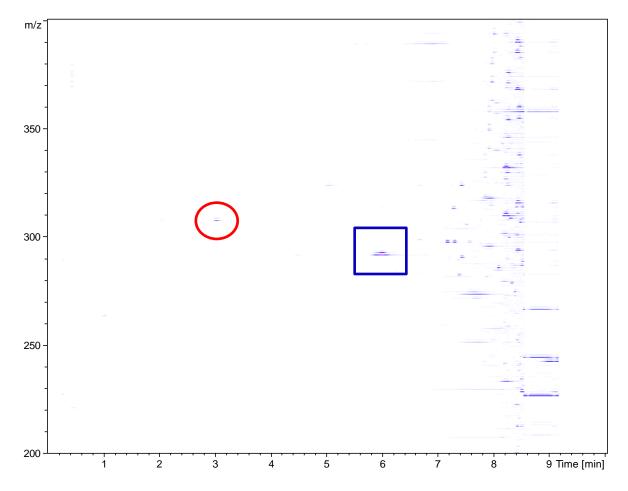
## **Supplementary material**

**Figure S1.** Simultaneous proposed mechanism of formation of  $\alpha$ -OH-TRI (OP306). Since protons are generated at the anode during the electrolysis, TRI can be protonated in solution and then oxidized by initial loss of an electron from the trimethoxyl moiety rather than the diaminopyridinyl moiety.



**Figure S2.** Survey view of the chromatogram obtained by UPLC-QTOFMS of a solution of TRI after 60 min of electrolysis at 1500 mV vs Ag/Ag<sup>+</sup> using the setup described for the three-compartment electrochemical cell with stationary electrodes. The red circle indicates the peak corresponding to OP306 (m/z 307,  $\alpha$ -hydroxytrimethoprim) and the blue square the peak corresponding to TRI (m/z 291). Peaks observed after 7 min correspond to compounds eluted at high organic percentage during the chromatographic separation. Signal threshold for the survey view was 1000 counts.