SECOND LIFE APPLICATION OF AUTOMOTIVE CATALYSTS: HYDRODYNAMIC CAVITATION RECOVERY AND PHOTO WATER SPLITTING

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Reference electrode potential measurement

The experimental setup for determining the reference electrode potential consists of a three electrode electrochemical cell: two platinum electrodes (work and counter electrode) and the Ag/AgCl reference electrode. The reference electrode potential is the equilibrium potential (i = 0 mA) for the hydrogen redox reaction:

$$H^{+}_{(aq)} + 2e^{-} \rightarrow H_{2\,(g)}$$

The potential was inspected in 0.1 M K_2SO_4. The electrolyte was purged with hydrogen (hydrogen generator, Perkin Elmer-PGKH2 500) continuously throughout the experiments. The potential obtained for the reference electrode is determined with a 95% confidence interval and is listed in Table 1.

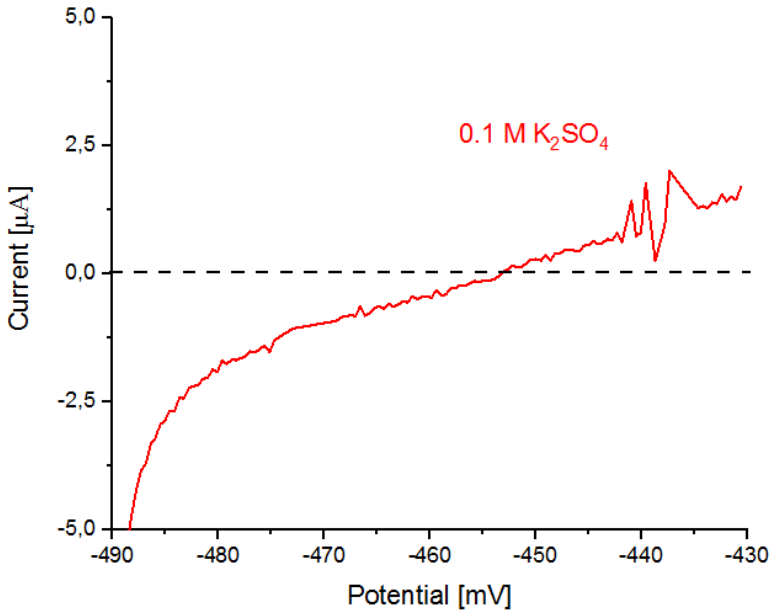

Figure S1. Measured reference electrode potential (Ag/AgCl) in 0.1 M K_2SO_4