

## Features corrosion-electrochemical behavior of steels with different chromium content in the highly acidic sulfate media

© Alexander I. Biryukov,\* Artem P. Tronov,<sup>+</sup> and Vadim S. Myhametianov

*Analytical and Physical Chemistry Division. Chelyabinsk State University.*

*Br. Kashirinuh St., 129. Chelyabinsk, 454001. Chelyabinsk region. Russia*

*Phone: +7 (351) 799-70-69. E-mail: arteq\_tron@mail.ru*

\*Supervising author; <sup>+</sup>Corresponding author

**Keywords:** corrosion, polarization curves, 15H5M steel, passivated.

### Abstract

Corrosion and electrochemical behavior of steel with various content of chrome (26HMFA-2, 15H5M, 20H13) in solutions of sulfuric acid has investigated by the potentiodynamic method. Features of passivation of steel 15H5M in strongly sour sulphatic solutions are defined. Corrosion and electrochemical researches of steel 26HMFA and 20H13 in 10% solution of sulfuric acid are conducted. It is shown that the mode close to diffusive is realized for all steel at oxidation in solutions of sulfuric acid.