

This review work is devoted to studying the Corrosion Behavior of Sensitized AISI 304 Stainless Steel in Acid Chloride Solution. The current paper examines the corrosion resistance of sensitized AISI 304 stainless steel in acid 1M chloride solution. However, the manuscript needs careful improvements before publication. This paper needs a major Revision based on the following comments:

1- Abstract:

- Most of them are focused on neutral chloride solutions 9 at room temperature and the experiments are carried out on ground **SS** surfaces." What does this abbreviation mean "SS"?

- " This paper deals 10 with the corrosion behavior of sensitized AISI 304 stainless steel in acid 1M chloride solution ($\text{pH} = 11.1$) at the temperatures of 20 ± 3 °C and 50 °C." What do authors mean with sensitivity?

- "The specimens after sensitization are tested both as **heat tinted** and after chemical removal of high-temperature oxides to assess the impact on corrosion resistance." I think this sentence is not obvious. Therefore, the authors need to clarify it or rewrite it.

2- Introduction:

- "The authors [17] evaluated the corrosion resistance of heat tinted (200 - 1050 °C) AISI 304 43 SS specimens by potentiodynamic polarization in chloride solutions (0.02 – 2.2 wt. % Cl-)." Authors need to add the changes which occur on the surface of steel during heating.

- "Potentiodynamic polarization and expo-67 sure immersion test, both carried out at the room (20 ± 3 °C) and elevated temperature (50 68 °C), are used as the independent corrosion tests." I think those temperatures are not enough to observe any changes.

3- 2. Materials and Methods:

- "The chemical composition obtained by X-ray fluorescence is listed in Table 1."

- "Fe**balance**" What does it mean?

- I suggest the name of compositions in table 1 write instead of the chemical symbol.

"The rectangular specimens (15 mm x 40 mm x 1.5 mm) were prepared for an "im-81 proper" heat treatment to evoke a sensitization and for consequent corrosion tests." Authors need to add the specification which they depend on to choose their sample dimension.

- " **Figure 1.** Microstructure of AISI 304 SS, longitudinal section (glycerine + HNO₃ + HCl etch., OM, magnification 500x). Authors need to add these compositions in Fig.

4-3.2. Potentiodynamic polarization

- " The PP curves of tested specimens measured at 20 ± 3 °C are shown in Figure 3, the 150 PP curves for 50 °C are presented in Figure 4. Values of the electrochemical PP parameters 151 are listed in Table 4." How did authors measure the corrosion?

- "**Figure 6.** OM micrographs of the corrosion pits edges – S specimen after 24 hours exposure in 1M Cl⁻ solution (represented by 5 wt.% FeCl₃ solution), cross section: (a) 20 ± 3 °C, magnification 100x; (b) 20 ± 3 °C, magnification 400x; (c) 50 °C, magnification 100x; (d) 50 °C, magnification 400x." Why did the authors not use the same scale for all figs?