

Abstract. Using new high entropy alloy with chemical formula AlCrNiCuMn produced by high technology (induction melt method), in manufacture of new composite materials will enable the creation of new structures resistant to stress used dynamic collective protection. Specify that High Entropy Alloys are characterized as alloys consisting of approximate equal concentrations of at least five metallic elements and are claimed to favor close-packed, disordered structures due to high configurational entropy. In this study, we investigate the microstructure and corrosion properties of AlCrNiCuMn high-entropy alloys. The type of high entropy alloys manufactured was a five-component alloy of AlCrNiCuMn. The microstructure and corrosion resistance property of high-entropy alloys AlCrNiCuMn were determined by scanning electron microscopy and electrochemical workstation. Microstructural characterization was performed by electron microscopy on LMHII VegaTescan equipment using a secondary electron detector (SE) at a voltage of 30 kV electron gun