

Studi inhibitor korosi berbahan dasar imidazoline menggunakan polarisasi tafel = Study for imidazoline based corrosion inhibitor using tafel polarization method / Rodax Jimmy Wibawa

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Abstrak

ABSTRAK

Laju korosi dari inhibitor dengan bahan dasar Imidazoline pada baja API 5-L Grade B dalam lingkungan NaCl 3,5% diinvestigasi dengan menggunakan metode polarisasi Tafel. Senyawa Imidazoline yang berhasil teradsorpsi ke permukaan logam diselidiki dengan menggunakan pengujian FTIR. Efisiensi inhibisi inhibitor Imidazoline bergantung pada konsentrasi inhibitor yang diberikan. Efisiensi optimum yang diperoleh 64,80 % dengan konsentrasi optimum 150 ppm. Inhibitor Imidazolin yang diselidiki merupakan jenis inhibitor campuran. Inhibitor Imidazoline juga dikatakan sebagai inhibitor korosi karena terbukti dapat menurunkan laju korosi.

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ABSTRACT

The corrosion rate from Imidazoline-based inhibitors on API 5-L Grade B steel at NaCl 3,5% environment were investigated using the Tafel Polarization method. The Imidazoline compounds that successfully absorbed onto steel surface were investigated using the Fourier Transform Infra Red (FTIR). Imidazolin's efficiency depends on the concentration that given onto environment. The highest efficiency of Imidazoline inhibitor is 64,80% with the optimize concentration 150 ppm. The investigated Imidazoline inhibitors were proven as the corrosion inhibitors because it can reduces the corrosion rate. Imidazoline inhibitors are also mixed type inhibitors.