

AIMS² Research Project in Materials Engineering/MSEM, Summer 2019

Research Duration: June 3, 2019 till August 9, 2019 (~15-20 hrs per week, minimum three days/wk)

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Goals and Objectives of the Project, Expectations and Outcomes:

Sustainable materials for steam generating system and power plants

RESEARCH OBJECTIVES

Corrosion is one the major issues on life expectancy and sustainability of power plant. One common method of improvement is controlling environment chemistry by using Eco-Friendly corrosion inhibitors. Some of new developed corrosion inhibitors will be investigated to define their effectiveness and suitability for this application.

These new corrosion inhibitors are very promising and can provide several advantages such as reduction in environmental impact and improvement of the work environment; reduction in deposition that reduces the frequency of chemical cleaning for through-flow boilers; and reduction in pipe wall thinning due to flow-accelerated corrosion.