

# Press release

## **DNV Intern Wins Poster Competition at Army Corrosion Summit**

**Columbus, OH USA:** DNV intern Juan Nervi received an award for having the best student poster presentation during the Army Corrosion Summit held February 3 – 5 in Clearwater Beach, Florida.

Nervi presented his poster on Magnesium Alloy AZ31B Corrosion Inhibition by Metavanadates and Decavanadates. For this presentation, Nervi studied the mechanisms of AZ31B corrosion inhibition by metavanadates. The inhibition of the cathodic and anodic reactions by metavanadates and decavanadates were investigated by polarization experiments and electrochemical impedance spectroscopy (EIS) on bare coupons. Measurements were conducted in 50 mM NaCl solutions at incremental concentrations of NaVO<sub>3</sub>. Results were compared against di-chromate-based compounds. Finally, the corrosion inhibition performance of metavanadates as pigments in epoxy coatings was also investigated. Sodium metavanadate was added to plain-epoxy primers and the coatings sprayed on the surface of pre-cleaned AZ31B flat coupons. Coating degradation was studied by EIS-based analysis on coatings with and without intentional defects.

Nervi is a student at the Institute of Technology under Professor Jorge Sabato in Argentina and is completing a six month internship with DNV Columbus. His work at DNV Columbus is part of Nervi's degree thesis. After completion Nervi will earn the equivalent of a Master's degree in Materials Science and will graduate in June. "We are very proud of the work Juan did on this project and during his internship with DNV," stated Mariano Iannuzzi, Ph.D. senior engineer for DNV. "The coordinators of the event from NACE (National Association of Corrosion Engineers) encouraged other companies to follow DNV's example by bringing bright young students to work on corrosion," continued Iannuzzi.

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**Links:**

DNV: [www.dnv.com](http://www.dnv.com)  
[www.dnvcolumbus.com](http://www.dnvcolumbus.com)

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Juan Nervi (pictured left) poses with winning poster and Mariano Iannuzzi.

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