

An Overview of Silane-based Hybrid Sol-gel Coatings for Highly Efficient Metal Corrosion Protection

Milad Sheydaei ^{a,*}, Milad Edraki ^b

^a Department of Chemical Engineering, Faculty of Engineering, University of Garmsar, Garmsar, Iran

^b Department of Chemical and Polymer Engineering, South Tehran Branch, Islamic Azad University, Tehran, P.O. Box 19585-466 Iran

Editor's note: This invited mini-review presents an overview of the corrosion protection potential of hybrid silane-based coatings applied through sol-gel fabrication on different metal substances. Sheydaei and Edraki focused on the environmental impact of such coatings and the importance of corrosion inhibitors on the final performance of silane-based corrosion protection systems for different application fields.

doi: 10.22034/jams.2024.210131

How to cite: M. Sheydaei and M. Edraki. *Journal of Applied Material Science*, 2025, 1, 210131.

Silane-based sol-gel coatings



JOURNAL OF
**APPLIED
MATERIAL
SCIENCE**

www.jams.hsu.ac.ir