2528 W Woodland Drive
Anaheim, CA 92801

KLIAH SOTO LEYTAN, Ph.D.

Staff Consultant

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Dr. Kliah Soto Leytan's expertise is in the fields of materials science, laboratory testing, metallurgy, and materials characterization. Her experience includes testing and characterizing turbine blade materials, as well as investigating the role of feedstock powder characteristics on both the microstructure and mechanical behavior of cold sprayed coatings.

Dr. Soto Leytan has expertise in optical microscopy, metallography, scanning electron microscopy (SEM), and energy dispersive X-ray spectroscopy (EDS). She is also fluent in Spanish.

Areas of Specialization

Materials Characterization Testing and Analysis
Corrosion
High Temperature Materials
Turbine Components
Engineering Failure Analysis
Mechanical Behavior and Mechanical Testing of Materials
Fractography

Education

Ph.D. Materials Science and Engineering, University of California, Irvine, 2019
M.S. Materials Science and Engineering, University of California, Irvine, 2014
B.A. Physics and Mathematics, Occidental College, 2012

Professional Affiliations/Honors

ASM International

Member

The Minerals, Metals & Materials Society (TMS)

Member

Positions Held

Engineering Systems, Inc., Anaheim, CA

Staff Consultant, 2024-Present

Gift Swap Central, Irvine, CA

Project Manager, Software Developer, 2022-2024

March 2024

University of California, Irvine, CA

Postdoctoral Researcher, Materials Science and Engineering 2020-2022

University of California, Irvine, CA

Research Assistant, Materials Science and Engineering, 2013-2019

Publications & Presentations

Amiri M., **Soto Leytan K.**, Apelian D., Mumm D., Valdevit L., "Controlling Splat Boundary Network Evolution Towards the Development of Strong Ductile Cold Sprayed Refractory Metals: The Role of Powder Characteristics," Submitted for review to Materials Science and Engineering A 2024.

Zhao Y., **Soto Leytan K.**, McDonell V., Samuelsen S., "Investigation of visible light emission from hydrogen-air research flames," International Journal of Hydrogen Energy 2019.

Soto Leytan K., Amiri M., Mumm D., Valdevit L., "Influence of Hydrogen Content on the Microstructure of Tantalum Cold Spray Coatings," Presented at CSAT 2021, Virtual.

Soto Leytan K., Mumm D., "Evaluation of Type I Hot Corrosion Resistance of Marinized Materials through Low Velocity Burner Rig Testing," Presented at TMS 2018, Phoenix AZ.

Soto Leytan K., Mumm D., "Effect of Fuel Content on Type I Hot Corrosion Attack in Low Velocity Burner Rig and Development of an Automated Image Analysis Sample Assessment Protocol for Evaluating Extent of Attack," Presented at High Temperature Corrosion and Protection of Materials 2016, Les Embiez, France.

Soto Leytan K., Mumm D., "Automated Image Analysis for Determining the Extent of Hot Corrosion Attack in Evaluating Potential 'Marinized' Turbine Hot Section Materials," Presented at MS&T 2015, Columbus OH.

Soto Leytan K., Mumm D., "Low Velocity Burner Rig Study of Hot Corrosion in Turbine Components," Presented at Gordon Research Conference 2015, New London, NH.

Soto Leytan K., Mumm D., "Automated Image Analysis Sample Assessment Protocol for Evaluating Extent of Hot Corrosion Attack in Burner Rig Tests," Presented at Faculty for the Future Forum 2015, Boston MA.

Soto Leytan K., Mumm D., "Hot Corrosion of Shipboard Turbine Components in a Low Velocity Burner Rig Using Alternative Fuels," Presented at Gordon Research Conference 2014, South Hadley, MA.