

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. Kliah 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

## Positions Held

### Engineering Systems Inc., Anaheim, CA

- Staff Consultant, 2024 – Present

### Grift Swap Central, Irvine, CA

- Project Manager, Software Developer, 2022-2024

### University of California, Irvine, CA

- Postdoctoral Researcher, Materials Science and Engineering 2020-2022
- Research Assistant, Materials Science and Engineering, 2013-2019

## Publications

### Controlling Splat Boundary Network Evolution Towards the Development of Strong and Ductile Cold Sprayed Refractory Metals: The Role of Powder Characteristics

M. Amiri, K. Soto Leytan, D. Apelian, D. R. Mumm, L. Valdevit, Materials Science and Engineering: A, June 2024

### Investigation of Visible Light Emission from Hydrogen-Air Research Flames

Y. Zhao, K. Soto Leytan, V. McDonell, S. Samuelsen, International Journal of Hydrogen Energy, August 13, 2019

## Presentations

### Influence of Hydrogen Content on the Microstructure of Tantalum Cold Spray Coatings

K. Soto Leytan, M. Amiri, D.R. Mumm, L. Valdevit, presented at the CSAT 2021, virtual

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### Education

PhD, Materials Science and Engineering, University of California, Irvine, 2019

MS, Materials Science and Engineering, University of California, Irvine, 2014

BA, Physics and Mathematics, Occidental College, 2012

### Areas of Specialization

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

## **Presentations (Continued)**

### **Evaluation of Type I Hot Corrosion Resistance of Marinized Materials Through Low Velocity Burner Rig Testing**

K. Soto Leytan, D.R. Mumm, presented at the TMS 2018 in Phoenix, AZ

### **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**

K. Soto Leytan, D.R. Mumm, presented at the High Temperature Corrosion and Protection of Materials 2016, in Les Embiez, France

### **Automated Image Analysis for Determining the Extent of Hot Corrosion Attack in Evaluating Potential 'Marinized' Turbine Hot Section Materials**

K. Soto Leytan, D.R. Mumm, presented at the MS&T 2015, in Columbus OH

### **Low Velocity Burner Rig Study of Hot Corrosion in Turbine Components**

K. Soto Leytan, D.R. Mumm, presented at the Gordon Research Conference 2015, in New London, NH

### **Automated Image Analysis Sample Assessment Protocol for Evaluating Extent of Hot Corrosion Attack in Burner Rig Tests**

K. Soto Leytan, D.R. Mumm, presented at the Faculty for the Future Forum 2015, in Boston MA

### **Hot Corrosion of Shipboard Turbine Components in a Low Velocity Burner Rig Using Alternative Fuels**

K. Soto Leytan, D.R. Mumm, presented at the Gordon Research Conference 2014, in South Hadley, MA