

# Ryan J. Haase, P.E.

Principal Materials Engineer

Materials Evaluation and Engineering, Inc.  
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## **SUMMARY**

Materials engineer with expertise in failure analysis, materials characterization, product evaluation, and research and development. Proficient in evaluation of failures in metallic and nonmetallic materials by fracture, wear, corrosion, thermal damage, or other degradation. Experienced in coating process development.

## **EDUCATION AND PROFESSIONAL CERTIFICATIONS**

Masters of Science, Materials Science and Engineering, 2007

Iowa State University, Ames, Iowa

“Novel Surface Modification of Steel Using High Density Infrared Heating”  
(Brian Gleeson, Major Professor)

Bachelors of Science, Materials Engineering, 2005

Minor, Mathematics

Iowa State University, Ames, Iowa

Registered Professional Engineer

Minnesota License ..... 49524

Arizona License ..... 80769

Iowa License ..... P29052

North Dakota License ..... PE-29151

South Dakota License ..... 16215

Wisconsin License ..... 101464-6

## **EXPERIENCE**

### November 2007 to Present

Materials Evaluation and Engineering, Inc.

Plymouth, MN

Materials Engineer (2007 - 2012)

Senior Materials Engineer (2012 - 2024)

Principal Materials Engineer (2024 - Present)

- Product support through failure analysis of industrial components.
- Product development through component testing and material selection.
- Manufacturing support through consultation on materials-related problems.
- Forensic materials engineering evaluation and expert witness testimony for product-failure incidents, including fires, explosions, and water damage.

### January 2020 to Present

Journal of Failure Analysis and Prevention

Associate Editor

- Evaluate and select articles for publication that meet readers' needs and that assure editorial quality.
- Edit and review technical articles that are published in the journal.
- Develop a peer-reviewer network and maintain a timely peer-review system.

### May 2006 to August 2006 and January 2007 to August 2007

In conjunction with Masters Project

Caterpillar Inc.

Peoria, IL

Corporate Intern

- New process development of a wear-resistant coating for large scale usage.
- Developed method for a plasma arc lamp to enable significantly larger processing areas than previous methods.

## **AWARDS AND RECOGNITION**

- ASM International Silver Medal Award, 2025

## **PROFESSIONAL AFFILIATIONS**

- ASM International Member 2003 - Present
  - Journal of Failure Analysis and Prevention
    - Editorial Board Member 2016 - Present
  - Failure Analysis Society Member, 2016 - Present
  - Failure Analysis Committee Member 2013 - 2016
  - Minnesota Chapter Board Member 2011 - 2015
    - Minnesota Chapter Chair 2013 - 2014
  - Web Committee Member 2009 - 2015
  - Emerging Professionals Committee Member 2008 - 2011
- NACE Member 2021 - Present
- TMS Member 2004 - 2010

## **PUBLICATIONS**

- Ryan Haase and Larry Hanke, "Fractography of Carbon and Alloy Steels," *Fractography*, Vol 12, ASM Handbook, Edited By Craig J. Schroeder, Ronald J. Parrington, Joseph O. Maciejewski, and James F. Lane, ASM International, 2024, p 326–335, <https://doi.org/10.31399/asm.hb.v12.a0007036>.
- Haase, Ryan J. and Hanke, Larry D., "Alkaline Carbonate SCC Failures at a Refinery," *Journal of Failure Analysis and Prevention*, 2018, Vol 18 (No. 1), p 153-161, <https://doi.org/10.1007/s11668-018-0391-y>.
- Haase, Ryan J. and Hanke, Larry D., "Boiler Stack Economizer Tube Failure," *Journal of Failure Analysis and Prevention*, 2013, Vol 13 (No. 5), p 513-520, <https://doi.org/10.1007/s11668-013-9717-y>.

## **CONFERENCE PRESENTATIONS**

- Haase, Ryan. "Failure of a Stainless Steel Shell of a High Temperature Vessel." IMAT 2025, October 2025, Detroit, MI.
- Barkes, Emily and Haase, Ryan. "Corrosion Fatigue Failure of a Boiler Tube." IMAT 2025, October 2025, Detroit, MI.
- Hanke, Larry D. and Haase, Ryan J. "Evaluation of Fractured Connecting Rod Bolts." IMAT 2023, October 2023, Detroit, MI.

- Haase, Ryan J. and Hanke, Larry D., "Alkaline Carbonate SCC Failures at a Refinery." MS&T 2017, October 2017, Pittsburgh, PA.
- Haase, Ryan J. and Hanke, Larry D., "Boiler Stack Economizer Tube Failure." MS&T 2013, October 2013, Montreal, Quebec.
- Haase, R. and Gleeson, B. "Novel Surface Modification of Steel Using High-Density Infrared Heating." TMS Annual Meeting, March 2008, New Orleans, LA.

**RECENT DEPOSITION AND TRIAL EXPERIENCE**

Available Upon Request