

# Publications

## Highlights

---

Darcis PhP, McCowan CN, Windhoff H, McColskey JD, Siewert TA, Crack tip opening angle optical measurement methods in five pipeline steels, *Engineering Fracture Mechanics* 75: 2453 (2008)

Darcis PhP, McColskey JD, McCowan CN, and Siewert TA, Exploring Methods for Measuring Pipe Weld Toughness, *Weld. J.* 86: 48 (2007)

McCowan CN, Uncertainty for Mechanical Testing, *NIST SP 1040* (2007)

McCowan CN, Splett JD, Lucon E, Dynamic force measurement: instrumented Charpy impact testing, *NIST IR 6652* (2007)

Siewert TA, McColskey JD, Ricker RE, NIST workshop on materials test procedures for hydrogen pipelines, *NIST IR 6649* (2007)

Siewert TA, Smith R, Merritt J, Advanced welding and joining technical workshop: Pipelines, *NIST IR 6641* (2006)

## Publication List

---

### Journal Articles

Lasseigne A, Determination of interstitial nitrogen content in austenitic stainless steel welds by thermoelectric power, *J. Soldagem & Inspecao*, submitted

Hamstad MA, Small diameter waveguide for wide-band acoustic emission, *J. Acoustic Emission*, submitted

Darcis PhP, Katsumoto H, Payares-Asprino MC, Liu S, Siewert TA, Cruciform fillet welded joint fatigue strength improvements by weld metal phase transformations, *Fatigue and Fracture of Engineering Materials and Structures*, submitted

Darcis PhP, McCowan CN, Windhoff H, McColskey JD, Siewert TA, Crack tip opening angle optical measurement methods in five pipeline steels, *Engineering Fracture Mechanics* 75: 2453 (2008)

Darcis PhP, McColskey JD, McCowan CN, and Siewert TA, Exploring Methods for Measuring Pipe Weld Toughness, *Weld. J.* 86: 48 (2007)

Darcis PhP, McCowan CN, Drexler ES, Shtechman A, Siewert TA, Fracture toughness through a welded pipeline section – crack tip opening angle criterion, *Welding in the World* 51: 225 (2007)

Samardzic I, Klaric S, Siewert TA, Analysis of welding parameter distribution in stud arc welding, *Welding in the World* 51: 791 (2007)

Banovic SW, Siewert TA, Failure of welded floor truss connections from the exterior wall during collapse of the World Trade Center towers, *Weld J.* 86: 263-s (2007)

Banovic SW, Foecke T, Gayle F, Luecke W, McColskey JD, McCowan CN, Siewert TA, Role of metallurgy in the NIST investigation of the World Trade Center collapse, *JOM* (2007)

Gayle F, Banovic SW, Foecke T, Fields R, Luecke W, McColskey JD, McCowan CN, Siewert TA, The structural steel of the World Trade Center towers, *J. Failure Analysis and Prevention* 6 (2006)

### Conference Proceedings

Lasseigne A, Anton JM, Siewert TA, Olson DL, Mishra B, Jackson JE, Advanced non-destructive measurement scheme to actively monitor hydrogen content in steel pipelines, *Proc. QNDE 2007, AIP*, in press

Jackson JE, Mishra B, Olson DL, Lasseigne A, Siewert TA, The future of microstructural characterization: an electronic metallography laboratory, *Proc. QNDE 2007, AIP*, in press

Darcis PhP, McColskey JD, McCowan CN, Siewert TA, Kohn G, Bussiba A, Fields RJ, Crack tip opening angle: Measurement and modeling of fracture resistance in low and high strength pipeline steels, *Proc. Intl. Pipeline Conf., IPC2006-10172* (2006)

Bussiba A, Darcis PhP, McColskey JD, McCowan CN, Siewert TA, Kohn G, Smith R, Merritt J, Fatigue crack growth rates in five pipeline steels, Proc. Intl.Pipeline Conf., IPC2006-10320 (2006)

Bussiba A, Darcis PhP, McColskey JD, McCowan CN, Kohn G, Siewert TA, Smith R, Merritt J, Fatigue crack growth rates in pipeline steels and fatigue life prediction, Proc. Intl.Pipeline Conf., IPC2006 (2006)

Verma KV, Siewert TA, Beckmann F, Integrated Bridge Project Delivery and Life Cycle Management, Proc. 1<sup>st</sup> Southeast Asia IIW Congress, p.75 (2006)

## **Workshop Proceedings**

Siewert TA, McColskey JD, Ricker RE, NIST workshop on materials test procedures for hydrogen pipelines, NIST IR 6649 (2007)

Siewert TA, Smith R, Merritt J, Advanced welding and joining technical workshop: Pipelines, NIST IR 6641 (2006)

## **Other Agency Reports**

Siewert TA, McColskey JD, McCowan CN, Peer Review Report, DOT Pipeline and Hazardous Materials Safety Administration's Pipeline Safety Research and Development Program (2007)

## **Best Practice Guides**

McCowan CN, Uncertainty for Mechanical Testing, NIST SP 1040 (2007)

McCowan CN, Splett JD, Lucon E, Dynamic force measurement: instrumented Charpy impact testing, NIST IR 6652 (2007)

Siewert TA, Splett JD, Santoyo RL, Evaluation specimens for Izod impact machines (SRM 2115): Report of analysis, NIST SP 260-164 (2006)

Siewert TA, Siewert B, Santoyo RL, Effect of CVN striker radius on absorbed energy and lateral expansion for various stainless steel, ASTM E28 Committee Report (2006)