

## 2008 — MOCHIZUKI Masahito

### Scientific Papers/Commentary Articles

1. M. Mochizuki, G. B. An and M. Toyoda, Thermal Elastic-Plastic Analysis Considering Temperature Rise by Rapid Plastic Deformation in Undermatched Joints, *Trans. ASME, J. Pressure Vessel Technology*, 131(3), 10.1115/1.3027477, 031202, 2009
2. K. Miyazaki, M. Numata, K. Saito and M. Mochizuki, Effect of Distance from the Center of Weld to the Fixed End on Residual Stress and Stress Intensity Factor of the Piping Weld, *Trans. ASME, J. Pressure Vessel Technology*, 131(2), 10.1115/1.3007428, 2009
3. Y. Mikami, Y. Morikage, M. Mochizuki and M. Toyoda, Angular Distortion of Fillet Welded T Joint Using Low Transformation Temperature Welding Wire, *Science and Technology of Welding and Joining*, 14(2), 97-105, 2009
4. H. Shirai, S. Okano, M. Mochizuki and M. Toyoda, Study of Weldability for Circularly Heat Input, *Materials Science Forum*, 580-582, 667-670, 2008
5. S. Okano, M. Mochizuki and M. Toyoda, Angular Distortion Reduction by In-Process Control Welding Using Back Heating Sources, *Materials Science Forum*, 580-582, 585-588, 2008
6. M. Mochizuki, S. Okano, G. B. An and M. Toyoda, Measurement of Through-Thickness Residual Stress in Primary Piping of Girth Welded Joint, *Materials Science Forum*, 580-582, 577-580, 2008
7. J. Katsuyama, M. Mochizuki, H. Mori, W. Asano, G. B. An and M. Toyoda, Geometrical and Welding Conditions on Through-Thickness Residual Stress in Primary Piping of Girth Welded Joints, *Materials Science Forum*, 580-582, 573-576, 2008
8. K. Mitani, M. Mochizuki and M. Toyoda, Investigation of Wall Thinning and Residual Stress Measurements in Welded Steel Plates by Electromagnetic Acoustic Resonance, *Materials Science Forum*, 580-582, 113-116, 2008
9. M. Mochizuki, Weld Distortion Simulation of Automotive Suspension Parts, *Proc. PAM-U Cnference 2008*, 521-524, 2008

### International Conference Proceedings

1. T. Satoh, Y. Mikami, M. Mochizuki, N. Suzuki and M. Toyoda, Effect of Geometric Imperfections and Mechanical Properties on Bending Capacity of High-Strength Linepipes, *Proc. 8th Int. Welding Symp. Japan Welding Society, Special Session: Pipeline Technology Now and Then*, 1, 119-125, 2008
2. A. Kubo, H. Iwahashi, S. Okano, M. Mochizuki, M. Toyoda, T. Nakamura and K. Hiraoka,

- Study on Effect of Welding Heat Input on Welded Joints Performance of Ultra-Fine Grained Steel, Proc. 8th Int. Welding Symp. Japan Welding Society, PT2-55, 2008
3. J. Yamada, S. Okano, H. Mori, M. Mochizuki, K. Nishimoto, Analytical Examination Concerning Strain Behavior Effecting Solidification Cracking Susceptibility in Low Carbon Austenitic Stainless Steel Laser Weld, Proc. 8th Int. Welding Symp. Japan Welding Society, PT2-32, 2008
  4. A. Inao, Y. Mikami, K. Nakashima, H. Shimanuki, M. Mochizuki and M. Toyoda, Observation of Fatigue Crack Propagation Paths in Ferrite-Martensite Lamellar Steels, Proc. 8th Int. Welding Symp. Japan Welding Society, PT-2-13, 2008
  5. R. Uraguchi, Y. Mikami, R. Higuchi, M. Mochizuki, M. Toyoda, A 3-D Analytical Study of the Microscopic Stress Distribution Considering the Heterogeneity of Microscopic Structure of Steel, Proc. 8th Int. Welding Symp. Japan Welding Society, PT-2-11, 2008
  6. M. Hasegawa, R. Hamanaka, S. Okano, Y. Mikami, M. Mochizuki and M. Toyoda, Basic Development of Structure Distortion Evaluation System Using Inherent Strain, Proc. 8th Int. Welding Symp. Japan Welding Society, PT-2-10, 2008
  7. Y. Mikami, M. Mochizuki and M. Toyoda, A Parametric Study on the Effect of the Transformation Expansion of High-strength Weld Metals on the Restraint Stress, Proc. 8th Int. Welding Symp. Japan Welding Society, PT-1-14, 2008
  8. S. Okano, M. Mochizuki and M. Toyoda, Effect of Welding Conditions on Reduction of Angular Distortion by In-Process Control Welding using Back Heating Source, Proc. 8th Int. Welding Symp. Japan Welding Society, PT-1-13, 2008
  9. T. Satoh, Y. Mikami, M. Mochizuki, N. Suzuki and M. Toyoda, Effect of Geometric Imperfections and Mechanical Properties on Bending Capacity of High-Strength Linepipes, Proc. 8th Int. Welding Symp. Japan Welding Society, SB-3-6, 2008
  10. Y. Mikami, M. Mochizuki and M. Toyoda, Numerical Simulation of Transformation-Induced Microscopic Residual Stress in Ferrite- Martensite Lamellar Steel, Proc. 8th Int. Welding Symp. Japan Welding Society, PO-11, 2008
  11. M. Mochizuki, Y. Mikami, S. Okano and S. Itoh, Computational Simulation of Weld Microstructure and Distortion by Considering Process Mechanics, Abstract Book for Int. Conf. Advanced Structural and Functional Materials 2008, OR-203, 2008
  12. M. Mochizuki, Y. Mikami and S. Okano, Weld Microstructure and Distortion Controls by Considering Process Mechanics, 61st Annual Assembly of International Institute of Welding, IIW Doc. X-1644-08, 2008
  13. T. Sato, Y. Mikami, M. Mochizuki, N. Suzuki and M. Toyoda, Parametric Study on the Effect of Geometric Imperfections on the Bending Capacity of High-Strength Linepipes, Proc. 7th Int. Pipeline Conf., IPC2008-64544, 2008

14. W. Asano, J. Katsuyama, K. Onizawa, M. Mochizuki and M. Toyoda, Effect of Surface Machining and Butt-Welding on Residual Stress and Hardness of Type 316L Stainless Steel Pipes, Proc. 2008 ASME Pressure Vessels and Piping Conf., PVP2008-61441, 2008
15. Y. Morikage, T. Kubo, K. Yasuda, Y. Mikami and M. Mochizuki, Effect of Transformation Temperature of Weld Metal on Welding Distortion, Proc. 27th Int. Conf. Offshore Mechanics and Arctic Engineering, OMAE2008-57709, 2008

#### **Awards**

1. M. Mochizuki, ASME Certificate of Appreciation for Developing the Outstanding International Session and Trends in Welding and Residual Stress, 2008.7.30

#### **Symposia**

1. International Symposium on Welding and Fracture Mechanics to Pipeline Technology, Invited speakers: Prof. Stephen Liu, Dr. Mustafa Kocak, Prof. Christian Thaulow