

2007 年度業績 — 望月 正人

学術論文・解説記事

1. M. Mochizuki, Control of Welding Residual Stress for Ensuring Integrity against Fatigue and Stress-Corrosion Cracking, Nuclear Engineering and Design, Vol. 237, Iss. 2, pp. 107-123, 2007
2. 三上欣希, 望月正人, 豊田政男, 溶接継手の角変形挙動に及ぼす溶接金属の変態膨張特性の影響 - 溶接金属の変態膨張による溶接角変形低減手法に関する研究 (第 2 報), 溶接学会論文集, 第 25 巻, 第 1 号, pp. 59-67, 2007
3. 三上欣希, 望月正人, 豊田政男, 溶接金属の変態膨張による角変形低減に及ぼす溶接入熱条件の影響 - 溶接金属の変態膨張による溶接角変形低減手法に関する研究 (第 3 報), 溶接学会論文集, 第 25 巻, 第 1 号, pp. 68-73, 2007
4. 三上欣希, 望月正人, 豊田政男, 外的拘束下での溶接金属の変態膨張による角変形低減効果 - 溶接金属の変態膨張による溶接角変形低減手法に関する研究 (第 4 報), 溶接学会論文集, 第 25 巻, 第 1 号, pp. 74-79, 2007
5. 岡野成威, 望月正人, 豊田政男, 裏面加熱源を用いた温度場制御による角変形低減支配因子に関する検討 - 複数熱源を用いた温度場制御による溶接変形制御手法に関する研究 (第 2 報), 溶接学会論文集, 第 25 巻, 第 1 号, pp. 95-105, 2007
6. M. Mochizuki and M. Toyoda, Weld Distortion Control during Welding Process with Reverse-Side Heating, Transactions of the ASME, Journal of Engineering Materials and Technology, Vol. 129 No. 2, pp. 265-270, 2007
7. 妻屋彰, 井上和也, 望月正人, 若松英史, 荒井栄司, 運用・保守段階での機能向上を考慮したプラント保全活動モデルの基礎的検討, 保全学, 第 6 巻, 第 1 号, pp. 34-39, 2007
8. R. Higuchi, M. Mochizuki and M. Toyoda, FEM-MD Combined Method for Investigation on Effects of Microscopic Heterogeneity near Weld Zone on Strength Characteristics, Welding in the World, Vol. 51, Iss. 7/8, pp. 29-34, 2007
9. M. Mochizuki and M. Toyoda, Strategy of Considering Microstructure Effect on Weld Residual Stress Analysis, Transactions of the ASME, Journal of Pressure Vessel Technology, Vol. 129, No. 4, pp. 619-629, 2007
10. 三上欣希, 中津康博, 橋場裕治, 望月正人, 豊田政男, ミクロ組織分布に注目した多層溶接金属の靱性評価に関する研究, 鋼構造年次論文報告集, 第 15 巻, pp. 659-667, 2007
11. M. Mochizuki, Y. Mikami, H. Yamasaki and M. Toyoda, Elastic Predicting Method of Weld Distortion of Large Structures Using Numerical Simulation Results by Thermal-Elastic-Plastic Analysis of Small Components, Welding in the World, Vol. 51, No. 11/12, pp. 60-64, 2007
12. 森裕章, 勝山仁哉, 望月正人, 西本和俊, 豊田政男, 表面強加工を受けた低炭素ステンレス鋼溶接部における残留応力と加工硬化の解析と粒界応力腐食割れ発生機構に関する

- 研究, 材料と環境, 第 56 卷, 第 12 号, pp. 568-575, 2007
13. 三谷欣也, 中山吉晴, 金井英一, 望月正人, 豊田政男, 電磁超音波共鳴スペクトルによる鋼板の減肉評価—電磁超音波センサを用いた鋼構造物の板厚および応力評価法の検討, 溶接学会論文集, 第 25 卷, 第 4 号, pp. 507-513, 2007
 14. M. Mochizuki, Y. Mikami, and M. Toyoda, Study on Metallurgical and Mechanical Heterogeneity in Weld Materials Considering Multiple Heat Cycles and Phase Transformation, Mathematical Modelling of Weld Phenomena 8, Edited by H. Cerjak, TU Graz Publishing, Graz, Austria, pp. 287-294, 2008
 15. Y. Mikami, M. Mochizuki and M. Toyoda, In-Process Control of Weld Distortion by Using Phase Transformation Effects, Mathematical Modelling of Weld Phenomena 8, Edited by H. Cerjak, TU Graz Publishing, Graz, Austria, pp. 981-1001, 2008

国際会議プロシーディングス

1. M. Mochizuki, H. Shirai and M. Toyoda, Microscopic Deformation Behavior of Small-Diameter Pipe by Laser Welding, Proceedings of the 5th German-Japan Seminar on Materials, Processes and Components, Fraunhofer Institute for Mechanics of Materials, Freiburg, Germany, No. S5-2, 2007
2. M. Mochizuki, R. Higuchi, Y. Mikami and M. Toyoda, Evaluation of Heterogeneity of Microscopic Deformation and Stress Distribution in Steel and Its Weld by FEM-MD Coupling Simulation, 60th Annual Assembly of the International Institute of Welding, Dubrovnik-Cavtat, Croatia, IIW Doc. X-1617-2007, 2007
3. H. Shirai, M. Mochizuki and M. Toyoda, Reduction of Welding Deformation by Split Laser Beams in Automobile Parts, 60th Annual Assembly of the International Institute of Welding, Dubrovnik-Cavtat, Croatia, IIW Doc. X-1618-2007, 2007
4. S. Okano, M. Mochizuki and M. Toyoda, Temperature Distribution for Reduction of Angular Distortion by In-process Control Welding, 60th Annual Assembly of the International Institute of Welding, Dubrovnik-Cavtat, Croatia, IIW Doc. X-1619-2007, 2007
5. M. Mochizuki, S. Okano, H. Shirai, Y. Hirata and M. Toyoda, Appropriate Molten Pool Configuration from a Viewpoint of Weld Distortion Control, 60th Annual Assembly of the International Institute of Welding, Dubrovnik-Cavtat, Croatia, IIW Doc. XII-1925-2007, 2007
6. K. Mitani, M. Mochizuki and M. Toyoda, Study on Thickness and Actual Stress Measurement of Steel Structures Using Electromagnetic Acoustic Transducer, Proceedings of the 2007 ASME Pressure Vessels and Piping Conference, American Society of Mechanical Engineers, San Antonio, U. S. A., PVP2007-26460, 2007
7. M. Mochizuki, R. Higuchi, J. Katsuyama and M. Toyoda, Evaluation of Strength Characteristics

Considering Microscopic Heterogeneity of Structural Steels and Weld Zone by Using FEM-MD Coupling Method, Proceedings of the 2008 ASME Pressure Vessels and Piping Conference, American Society of Mechanical Engineers, San Antonio, U. S. A., PVP2007-26573, 2007

8. J. Katsuyama, W. Asano, K. Onizawa, M. Mochizuki and M. Toyoda, Crack Growth Analyses of SCC under Various Residual Stress Distributions near the Piping Butt-Welding, Proceedings of the 2009 ASME Pressure Vessels and Piping Conference, American Society of Mechanical Engineers, San Antonio, U. S. A., PVP2007-26574, 2007