

## Publications : : 1997

151. N.I. Kobasko, A.A. Moskalenko, G.E. Totten and G.M. Webster, "Experimental Determination of the First and Second Critical Heat Flux Densities and Quench Process Characterization", *J. Mat. Eng. Perf.*, **1997**, Vol. 6(1), p. 93-101.
152. G.E. Totten and M.A.H. Howes Ed., Steel Heat Treatment Handbook, 1997, Marcel Dekker, Inc., New York.
153. H.M. Tensi, A. Stich, and G.E. Totten, "Quenching and Quenching Technology", Chapter 4 in Steel Heat Treatment Handbook, Ed. By G.E. Totten and M.A.H. Howes, 1997, Marcel Dekker, Inc., New York, p.157-249.
154. G.E. Totten and M.A.H. Howes, "Distortion of Heat Treated Components", Chapter 5 in Steel Heat Treating Handbook, Ed. By G.E. Totten and M.A.H. Howes, 1997, Marcel Dekker, Inc., New York, p.251-292.
155. G.E. Totten, G.R. Garsombke, D. Pye and R.W. Reynoldson, "Heat Treating Equipment", Chapter 6 in Steel Heat Treatment Handbook, Ed By G.E. Totten and M.A.H. Howes, 1997, Marcel Dekker, Inc., New York, p. 293-481.
156. G.E. Totten, G.M. Webster, L.M. Jarvis and C.E. Bates, "Effect of Section Size, Quenchant Concentration and Agitation on the Physical Properties of Type I Polymer Quenched Aluminum Alloys", in Proceedings of the 1st International Non-Ferrous Processing and Technology Conference, Eds. T. Bains and D.S. MacKenzie, ASM International, Materials Park, OH, March 10 12, 1997, p. 7-16.
157. G.E. Totten, G.M. Webster and C.E. Bates, "Quench Factor Analysis: Step-By-Step Procedures for Experimental Determination", in Proceedings of the 1st International Non-Ferrous Processing and Technology Conference, Eds. T. Bains and D.S. MacKenzie, ASM International, Materials Park, OH, March 10-12, 1997, p. 305-312.
158. G.E. Totten and G.M. Webster, " Alternatives to Water Quenching of Aluminum Alloys: A Review", in Proceedings of the 1st International Non-Ferrous Processing and Technology Conference, Eds. T. Bains and D.S. MacKenzie, ASM International, Materials Park, OH, March 10-12, 1997, p.163-173.
159. D.A. Wachter, G.E. Totten and G.M. Webster, "Quenching Fundamentals: Maintaining Quench Oils", *Adv. Mat. & Proc.*,**1997**, No. 2, p. 48AA-48CC.
160. G.E. Totten and G.M. Webster, "Fire Resistant Fluid Testing", *Fluid Power Journal*, **1997**, March/April, p.3,32.
161. G.E. Totten, G.M. Webster, C.E. Bates, S.W. Han and S.H. Kang, "Limitations of the Use of Grossman Quench Severity Factors", in 17th Heat Treating Society Conference Proceedings Including the 1st International Induction Heat Treating Symposium, Eds., D. Milam, D. Poteet, G. Pfaffmann, W. Albert, A. Muhlbauer and V. Rudnev, ASM International, Materials Park, OH, 1997, p. 411-422.
162. G.E. Totten, G.M. Webster, R.R. Blackwood, and L.M. Jarvis, "Bath Maintenance and Troubleshooting of Polymer Quenchant Related Problems in Induction Heat Treating", in 17th Heat Treating Society Conference Proceedings Including the 1st International Induction Heat Treating Symposium, Eds., D. Milam, D. Poteet, G. Pfaffmann, W. Albert, A. Muhlbauer and V. Rudnev, ASM International, Materials Park, OH, 1997, p. 951-956.

163. S.W. Han, S.H. Kang, G.E. Totten and G.M. Webster, "Applications of Polymer Quenchants for High Hardenability, Crack-Sensitive Steels", in 17th Heat Treating Society Conference Proceedings Including the 1st International Induction Heat Treating Symposium, Eds., D. Milam, D. Poteet, G. Pfaffmann, W. Albert, A. Muhlbauer and V. Rudnev, ASM International, Materials Park, OH, 1997, p. 373-379.
164. H.M. Tensi, G.E. Totten and G.M. Webster, "Proposal to Monitor Agitation of Production Quench Tanks", in 17th Heat Treating Society Conference Proceedings Including the 1st International Induction Heat Treating Symposium, Eds., D. Milam, D. Poteet, G. Pfaffmann, W. Albert, A. Muhlbauer and V. Rudnev, ASM International, Materials Park, OH, 1997, p. 423-431.
165. G.E. Totten, G.M. Webster, L.M. Jarvis, S.W. Han and S.H. Kang, "Thermal/Oxidative Stability and Polymer Drag-Out Behavior of Polymer Quenchants", in 17th Heat Treating Society Conference Proceedings Including the 1st International Induction Heat Treating Symposium, Eds., D. Milam, D. Poteet, G. Pfaffmann, W. Albert, A. Muhlbauer and V. Rudnev, ASM International, Materials Park, OH, 1997, p. 443-448.
166. D. McCleod, G.E. Totten and G.M. Webster, "Investigation of the Mechanism of Polymer Quenchant Mediation of Heat Transfer During Quenching by ESR Spectroscopy", in 17th Heat Treating Society Conference Proceedings Including the 1st International Induction Heat Treating Symposium, Eds., D. Milam, D. Poteet, G. Pfaffmann, W. Albert, A. Muhlbauer and V. Rudnev, ASM International, Materials Park, OH, 1997, p. 433-441.
167. G.E. Totten, G.M. Webster, H.M. Tensi and B. Liscic, "Quenching Fundamentals: Standards for Cooling Curve Analysis", *Adv. Mat. & Proc.*, **1997**, Vol. 151, No. 6, p. 68LL-68OO.
168. X.L. Chen, L. Meekisho, M. Becker and G.E. Totten, "A Numerical Approach Examination of Obtaining Heat Transfer Coefficients by Quenching Probe Through Lumped Analysis", in 17th Heat Treating Society Conference Proceedings Including the 1st International Induction Heat Treating Symposium, Eds., D. Milam, D. Poteet, G. Pfaffmann, W. Albert, A. Muhlbauer and V. Rudnev, ASM International, Materials Park, OH, 1997, p.355-361.
169. G.E. Totten, G.M. Webster, and C.E. Bates, "Aluminum Quenching with Polymer Quenchants: An Overview", in 17th Heat Treating Society Conference Proceedings Including the 1st International Induction Heat Treating Symposium, Eds., D. Milam, D. Poteet, G. Pfaffmann, W. Albert, A. Muhlbauer and V. Rudnev, ASM International, Materials Park, OH, 1997, p. 247-257
170. C. Sdregas, G.E. Totten and G.M. Webster, "Water-Glycol Hydraulic Fluids: Technological Advancements and Limitations", Transactions: 19th International Die Casting Congress & Exposition, North American Die Casting Association, Minneapolis, MN, Nov. 3-6, 1997, p. 97-101.
171. G.E. Totten and R.J. Bishop Jr., "ASTM D-2882 - Vicker's Vane Pump Test: Replacement of Vicker's V-104 Vane Pump with the 20VQ Vane Pump", AISE 1997 Annual Convention Proceedings - Vol.2, Oct. 1-2, 1997, Cleveland, OH, p. 1439-1452.
172. G.E. Totten, Y.H. Sun, and R.J. Bishop, "Hydraulic Fluids: Foaming, Air Entrainment and Air Release - A Review", *SAE Technical Paper Series*, Paper Number 972789, (1997).
173. G.E. Totten, J. Cerf, R.J. Bishop and G.M. Webster, "Recent Results of Biodegradability and Toxicology of Water-Glycol Hydraulic Fluids", *SAE Technical Paper Series*, Paper Number 972744, (1997).
174. S.W. Han, S.H. Kang, G.E. Totten, and G.M. Webster, "Polymer Quenchant Technology: Thermal Separation and Polymer Drag-Out Phenomenon", Proceedings of the 6th International Seminar of IFHT, Oct. 15-18, 1997, Kyongju, Korea, p. 458-464.

175. S.W. Han, S.H. Kang, G.E. Totten and G.M. Webster, "Advances in Polymer Quenchant Technology", Proceedings of the 6th International Seminar of IFHT, Oct. 15-18, 1997, Kyongju, Korea, p. 465-472.
176. G.E. Totten, G.M. Webster, S.W. Han and S.H. Kang, "Limitations of the Use of Grossman Quench Severity Factor", Proceedings of the 6th International Seminar of IFHT, Oct. 15-18, 1997, Kyongju, Korea, p. 450-457.
177. Zhao Haiou, G.E. Totten, G.M. Webster and F. Yim, "Poly(Alkylene Glycol) Quenchants for Aluminum Heat Treating", *J. of Materials Eng. (China)*, **1997**, 1, p. 14-16.
178. L.D. Wedeven, G.E. Totten, R.J. Bishop Jr. and Y.H. Sun, "Hydraulic Fluid Lubrication: Performance Map and Film Thickness Characterization", in Wear of Engineering Materials, Ed. J.A. Hawk, ASM International, Materials Park, OH, 15-18 September, 1997, p. 91-98.
179. G.E. Totten and K. Funatani, "Present Accomplishments and Future Challenges of Quenching Technology", Proceedings of the 6th International Seminar of IFHT, Oct. 15-18, 1997, Kyongju, Korea, p. 20-27.
180. G.E. Totten, G.M. Webster, S.H. Kang and S.W. Han, "Direct Forge Quench Quenching with Poly (Alkylene Glycol) Polymer Quenchants", in Accelerated Cooling/Direct Quenching of Steels, Ed. R. Asfahani, ASM International, Materials Park, OH, Sept. 15-18, 1997, p. 207-216..
181. N.I. Kobasko, G.E. Totten, and G.M. Webster, "Interrupted Two-Step Cooling Using Poly(Alkylene Glycol) Quenchants", in Accelerated Cooling/Direct Quenching of Steels, Ed. R. Asfahani, ASM International, Materials Park, OH, Sept. 15-18, 1997, p.223-230.
182. B. Liscic and G.E. Totten, "Benefits of Delayed Quenching", *Adv. Mat. & Proc.*, **1997**, No. 9, p. 180-184.
183. G.E. Totten, R.J. Bishop, and G.M. Webster, "Hydraulic Fluid Evaluation by ASTM D-2882: Wear Rate Error Minimization", in *New Achievements and Ideals in Fluid Power Engineering*, Eds. L. Yongxiang and G. Yiyuan, 1997, International Academic Publishers, Beijing, PRC, p. 36-41.
184. G.E. Totten, J. Cerf and G.M. Webster, "Performance, Biodegradability and Toxicology of High-Performance Hydrolubes", in *New Achievements and Ideals in Fluid Power Engineering*, Eds. L. Yongxiang and G. Yiyuan, 1997, International Academic Publishers, Beijing, PRC, p. 36-41.
185. L.D. Wedeven, G.E. Totten and R.J. Bishop, "Tribological Modeling of Hydraulic Fluid Lubricity by Performance Map Film Thickness Evaluation", in *New Achievements and Ideals in Fluid Power Engineering*, Eds. L. Yongxiang and G. Yiyuan, 1997, International Academic Publishers, Beijing, PRC, p. 36-41.
186. G.E. Totten, G.M. Webster and C.E. Bates, "Cooling Curve and Quench Factor Characterization of 2024 and 7075 Aluminum Bar Stocked Quenched in Type I Polymer Quenchant", *Promysh. Teplotek.*, **1997**, 19 (3), p. 59-65.
187. G.E. Totten, G.M. Webster, and C. Ulisses, "Polymer Quenchant Technology: Thermal Separation and Polymer Drag-Out Phenomenon", *Second International Congress on Metallurgy and Materials Technology*, Associacao Brasileira de Metalurgia E Materiais, October 12-17, 1997, Sao Paulo, Brazil.
188. S.W. Han, S.H. Kang, G.E. Totten and G.M. Webster, "Advances in Polymer Quenchant

Technology”, Second International Congress on Metallurgy and Materials Technology, Associacao Brasileira de Metalurgia E Materiais, October 12-17, 1997, Sao Paulo, Brazil.

189. G.E. Totten, G.M. Webster and C. Ulisses, “Maintenance of Aqueous Polymer Quenchants”, Second International Congress on Metallurgy and Materials Technology, Associacao Brasileira de Metalurgia E Materiais, October 12-17, 1997, Sao Paulo, Brazil.
190. G.E. Totten, G.M. Webster, H.M. Tensi and B. Liscic, “Standards for Cooling Curve Analysis of Quenchants”, *Heat Treatment of Metals*, **1997**, 4, p.92-94.
191. G.E. Totten, G.M. Webster and R.R. Blackwood, “Chute Quench design Recommendations”, *Industrial Heat Engineering (Ukraine)*, **1997**, Vol. 19, No. 6, p.57-60.