

Publikationen 2001

Aris, S.; Martins, R. V.; Wegener, J.; Honkimäki, V.; Pyszalla, A.:

Texture and crystallite microstrain development during tensile deformation of copper - simulation and comparison to experimental results

J. de Physique IV 11, September, (2001), S. Pr 4–61 – Pr 4-68

Buslaps, T.; Aris, S.; Martins, R. V.; Honkimäki, V.; Pyszalla, A.:

Investigation of texture and intergranular strains of aluminum and steel using high energy synchrotron radiation and comparison to numerical models

J. Materials Process. Technology. 117, 3, (2001) CD – ROM

Dalle Donne, C.; Lima, E.; Wegener, J.; Pyszalla, A.; Buslaps, T.:

Investigations on residual stresses in friction stir welds

Proc 3rd International Symposium on Friction Stir Welding, Kobe, Japan, 27/28.

September 2001, TWI, UK, (CD-ROM)

Dantz, D.; Genzel, Ch.; Reimers, W.; Buslaps, T.:

Investigations of the residual stress state in microwave sintered functionally graded materials

Ceramics transactions 114, (2001), S. 563-570

Dieter, S.; Pyszalla, A.; Reimers, W.:

Textur- und Eigenspannungsanalysen an Verschleißschutzschichten für Mikrozahnräder

in: Material- und Verfahrensentwicklung für mikrotechnische Hochleistungsbauteile, Wissenschaftliche Berichte des Forschungszentrums Karlsruhe FZKA 6662, (2001), S. 79-82

Dieter, S.; Pyszalla, A.; Wanderka, N.; Macht, M.P.; Reimers, W.:

Eigenspannungen, Textur und Koerzitivfeld in Abhängigkeit von den Sputterparametern für FeCo/SiO₂ – Schichten

in: Material- und Verfahrensentwicklung für mikrotechnische Hochleistungsbauteile, Wissenschaftliche Berichte des Forschungszentrums Karlsruhe FZKA 6662, (2001), S. 35-40

Genzel, Ch.; Stock, C.; Wallis, B.; Reimers, W.:

The application of white radiation to residual stress analysis in the intermediate zone between surface and volume

Nuclear Instruments & Methods in Physics Research A 467-468, (2001), S. 1253-1256

Georges, Th.; Hackmair, Ch.; Mayer, H.; Pyszalla, A.; Porzner, H.; Durantou, P.:

3D Numerical simulation of residual stresses and distortions for the induction quenching process of crankshafts

<http://www.esi-group.test.fr.colt.net/services/publications/crankhaft/index.html>

Haase, A.; Genzel, Ch.; Dantz, D.; Löhmann, M.; Wallis, B.; Stock, C.; Reimers, W.:
A new X-ray diffractometer 'ETA' for surface gradient investigations in phase, texture and stress analysis

Applied Crystallography, proceedings of the XVIII Conference , World Scientific, Singapore, (2001), S. 97-100

Heitkemper, M.; Bohne, C.; Pyzalla, A.; Fischer, A.:
Fatigue and fracture behaviour of a laser heat treated martensitic high-nitrogen tool steel

10th International Congress on Fatigue ICF 10, 2.-06.12.01, Honolulu, Oahu, Hawaii, USA, in: Adv. in Fracture Research, Proc. ICF 10, K. Ravi Chandar, B.L. Karihaloo, T. Kiski, R.O. Ritchie, A.T. Yokobori, (eds.), Elsevier Science (2001), CD-ROM, Aufsatz Nr. 0249

Heitkemper, M.; Bohne, C.; Pyzalla, A.; Fischer, A.:
Improvement of wear properties of high nitrogen steels by laser surface heat treatment

Proc. International Tribological Conference (ITC) 2000, Vol. 2, (ISBN 4-9900139-5-6), (2001), S. 961-966

Heitkemper, M.; Fischer, A.; Bohne, C.; Pyzalla, A.:
Wear mechanisms of laser-hardened martensitic high-nitrogen-steels under sliding wear

Wear 250, (2001), S. 477-484

Heitkemper, M.; Fischer, A.; Bohne, C.; Pyzalla, A.:
Ermüdungsverhalten von laserwärmebehandeltem hochstickstofflegiertem Kaltarbeitsstahl

Proc. AWT Symposium Ermüdung Hochharter Stähle, Weimar 21.-22.06.01, (2001), S. 33-39

Epishin, A.; Link, T.; Brückner, U.; Portella, P. D.:
Kinetics of the topological inversion of the γ/γ' microstructure during creep of a nickel-base superalloy

Acta mat. 49, 2001, S. 4017-4023

Martins, R. V.; Lienert, U.; Margulies, L.; Pyzalla, A.:
Residual strain tensor determination within highly plastically deformed torsion samples using high energy synchrotron radiation

Journal of Neutron Research 9, (2001), S. 249-254

Martins, R. V.; Lienert, U.; Margulies, L.; Pyzalla, A.:
Investigation of the strain distribution in an Al-MMC torsion sample using high energy synchrotron radiation

Proc. TMS Fall meeting 2001, Indianapolis, USA, Session IV: Affordable Metal-Matrix Composites for High Performance Applications, S. 285-295

Möller, D.; Reimers, W.; Pyzalla, A.; Fischer, A.:
Residual stresses in coronary artery stents

J. Biomedical Materials Research 58, Heft 1, (2001), S. 69-74

Österle, W.; Rooch, H.; Pyzalla, A.; Wang, L.:

Investigation of white etching layers on rails by optical microscopy, electron microscopy, X-ray and synchrotron X-ray diffraction

Material Science and Engineering A 303, (2001), S. 150-157

Pyzalla, A.; Bohne, C.; Heitkemper, M.; Fischer, A.:

Influence of a laser rapid heat treatment on the corrosion resistance of the high nitrogen steel X30CrMoN15 1 + 0.3% N

Materials and Corrosion 52, (2001), pp. 99-105

Pyzalla, A.; Jacques, A.; Feiereisen, J.-P.; Buslaps, T.; D'Almeida, T.; Liss, K.-D.:

In-situ analyses of the microstrains during tensile deformation of an AISi-MMC at room temperature and elevated temperature

J. Neutron Research 9, (2001), S. 435-442

Pyzalla, A.; Wang, L.; Wild, E.; Wroblewski, T.:

Influence of wear on the microstructure at the surface of railway rails

J. Materials Process. Technology. 117, 3, (2001), CD – ROM

Pyzalla, A.; Wang, L.; Wild, E.; Wroblewski T.:

Changes in microstructure, texture and residual stresses on the surface of a rail resulting from friction and wear

Wear 250, (2001), S. 901-907

Reetz, B.; Wegener, J.; Töpfer, T.; Pyzalla, A.:

Experimentelle Analysen der Gefüge-, Textur- und Spannungsentwicklung bei der Umformung mehrphasiger Werkstoffe

Proc. Kolloquium Erweiterung der Formgebungsgrenzen bei Umformprozessen, Bonn 12.-13.09.2001, S. 170-174

Reimers, W.; Heitkemper, M.; Bohne, C.; Fischer, A.; Pyzalla, A.:

Ermüdungs- und Bruchverhalten von laserwärmebehandeltem hochstickstofflegierten martensitischen Werkzeugstahl X30CrMoN151

Berichtsband Proceedings Fatigue of Super Hard Steels (2001), S. 33-39

Siebörger, D.; Brehm, H.; Wunderlich, F.; Möller, D.; Glatzel U.:

Temperature dependence of lattice parameter, misfit and thermal expansion coefficient of matrix, gamma-phase and superalloy

Zeitschrift Metallkunde 92, (2001), S. 58-61