

DR. MUSTAFA KOÇAK

Position: **CEO**
 Company: **GEDİK Holding A.Ş.**
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 h-index 33



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EDUCATION

Type of Degree	Program	Academic Institution	Year
Ph. D. Degree	Mechanical Engineering	University of Bath, U.K.	1982
Bachelor's Degree	Mechanical Engineering	Middle East Technical University, TURKEY	1979

Title of Ph. D. Thesis	"Fatigue Crack Growth in Aircraft Structures"	University of Bath, U.K.	1982
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ACADEMIC PUBLICATIONS

Type of Publication	Item
A. Articles published in Internationally-Refereed Journals	79
B. Papers presented at International Scientific Meetings and published in Proceedings	121
C. International Books and Chapters (Editorial)	8
D. Papers presented at National Scientific Meetings and published in Proceedings	8
E. Other Publications	33
Total	249

TASKS & POSITIONS

-1- Professional Background

Position Title	Organization	Year
CEO	Gedik Holding A. S.	2009 - ...
Co-Coordinator	EU Technology Platform: European Industrial Safety (ETPIS), Structural Safety Group	2003 - 2009
Coordinator	European Thematic Network (TN): Fitness for Service (FITNET) (http://www.eurofitnet.org)	2002 - 2008
Chairman	International Institute of Welding (IIW) - Commission X: Structural Performance and Fracture Avoidance	2002 - 2012
Coordinator	European Project on Joining of Supermartensitic Steel Pipes (JOTSUP)	1999 - 2003
Coordinator	European Project on Assessment of Power Beam Welds (ASPOW)	1993 - 1996
Co-Chair of Tech. Com.	German Thematic Network (National Research Group of DVS-VdEh-DVM): Fracture Mechanics of Welds	1995 - 2002
Dept. Manager	GKSS Research Center, Materials Research, Materials Application and Technology Center (WATZ)	1998 - 2005
Dept. Manager	GKSS Research Center, Materials Research, Department of Joining and Assessment (WMF)	1991 - 2009
Group Manager	GKSS Research Center, Materials Research	1984 - 1991
Post-Doc.	University of Liverpool, Department of Metallurgy; Research Topic: Micro structural Investigation of Pressure Vessel Steels	1982 - 1984

-2- Managerial Positions

Position Title	Organization
Division Manager	Applied Metallurgy, GKSS Research Center, Materials Research, Germany
Division Manager	Application and Usage (WUN), GKSS Research Center, Germany
Chair of Sub-Commission	Sub-Commission X-F: Weld Mis-Match Effect, International Institute of Welding (IIW)
Member	Technical Management Board (TMB), International Institute of Welding (IIW)
Co-chair	European Project on Welding of Aerospace Al-alloys using laser beam and friction stir welding (WEL-AIR)

BRIEF BIOGRAPHY

Dr. Mustafa Koçak got his B. Sc. in Mechanical Engineering at the Middle East Technical University – Gaziantep Campus, Turkey. He has completed his Ph. D. degree at the University of Bath – U.K. in 1982. Till 1985 he has been a post-doctorate of Materials Science in University of Liverpool.

The topic of his Ph. D. study was "Fatigue Crack Propagation Analysis of Aircraft Al-alloy Structures" and the topic of his post-doctorate study at the University of Liverpool was "Micromechanism of Ductile Fracture of Pressure Vessel Steels".

His areas of interest are advanced welding technologies, microstructure, fatigue, residual stress and fracture assessment of welded structures.

He has made numerous invited lectures at various international events in the field of welding technology and fracture mechanics of weldments.

He has published about 240 scientific and technical papers as well as editing or co-editing several international conference proceedings in the fields of welding and fracture mechanics such as:

- Welding 90 (Technology – Materials – Fracture) 1990 - Geesthacht/ Germany
- MIS-MATCH 93 (Mismatching of Welds) 1993 – Lüneburg/ Germany
- MIS-MATCH 96 (Mismatching of Welds and Interfaces) – Lüneburg/ Germany
- ASPOW (Assessment of Power Beam Welds EU Project) 1999 – Geesthacht/Germany
- WEL-AIR (Short Distance Welding Concepts for Airframes – EU Project) 2007 – Geesthacht / Germany
- IDA (Investigation on Damage Tolerance Behaviour of Aluminium Alloys – EU Project) 2005 - Geestacht / Germany
- FITNET (European Fitness for Service Network) 2006 – Amsterdam/ The Netherlands
- IIW AWST 2010 – Istanbul/ Turkey
- IIW AWST 2011 – Antalya/ Turkey

He has coordinated several European research projects on welding technologies and welding mechanics, such as ASPOW (Assessment of Power Beam Welds, 1996 – 1999), JOTSUP (Joining Technologies of 13 Cr Supermartensitic Steel Pipes, 2003) and European Fitness for Service Network (FITNET; Fracture, Fatigue, Creep and Corrosion, 2006).

He was also Task Leader in several EU-Projects such as SINTAP (Structural Integrity Assessment Procedures), IDA (Investigation on Damage Tolerance Behaviour of Aluminium Alloys) and WEL-AIR (Short Distance Welding Concepts for Airframes).

Having worked as scientist, head of research groups, manager of department as well as manager of Materials Application and Technology Center (WATZ) at the GKSS Research Center from October 1984 to August 2009, Dr. Koçak became CEO of GEDIK Holding in Turkey in September 2009.

With his research group at the GKSS Research Center as well as with his current capacity as CEO of the Gedik Holding (where it has leading welding company, Gedik Welding, in Turkey) he has contributed (and is contributing) to the International Institute of Welding (IIW) activities as well as technical commission works and conferences.

He has contributed to the hosting and organization of the first IIW Annual Assembly and International Conference AWST in Istanbul/Turkey at 2010 with over 900 participants.

He has served IIW as Sub Commission X-F (Mis matching of welds) and three terms (2003 – 2012) as Chairman of the Commission X - Structural Performances of Welded Joints – Fracture Avoidance - of the IIW.

He has served IIW as a member of the Technical Management Board (TMB). During his membership, he has initiated and contributed to the preparation of the first IIW Strategy Book (White Book) and he is currently co-editor of this IIW document.

He has been active participant of the IIW Annual Meetings last 24 years.

In December 2010 he has been elected as Chairman of the Turkish Welding Technology Academy (TKTA) who is one of the Turkish member societies of the IIW. He has been involved in Gedik Education Foundation (GEV) and Gedik University with their roles as major Turkish member societies of the IIW.

SUPERVISED THESIS

1. E. Junghans, "Fracture Assessment of Repair Welds in Steel Structures", PhD. thesis (1996), Hamburg University of Technology, Hamburg-Harburg, Germany
2. A. Insfran, "Fracture Toughness Evaluation of Laser Beam Welded Structural Steels", PhD. thesis (1999), Hamburg University of Technology, Hamburg-Harburg, Germany
3. E. Seib, "Residual Strength Analysis of Laser Beam and Friction Stir Welded Aluminum Panels for Aerospace Applications", PhD. thesis (2005), Hamburg University of Technology, Hamburg-Harburg, Germany
4. S. Cicero, "Constraint Analysis of Welded Structures for Fitness for Service Assessment", PhD. thesis (2007), University of Cantabria, Santander, Spain
5. S. Simoes, "Diffusion Bonding of TiAl using Nano Multi Layer Technique", PhD. thesis (2010), University of Porto, Portugal
6. V. Uz, "Improvement of Damage Tolerance of Laser Beam Welded Stiffened Al-Alloy Panels for Airframes using the Crenellation Technique", PhD thesis (2010), Hamburg University of Technology, Hamburg-Harburg, Germany
7. Ç. Yeni, "Fracture Analysis of Similar and Dissimilar Laser Welds", PhD thesis, Dokuz Eylül University, Izmir, Turkey
8. F. Bayraktar, "Analysis of Residual Stress in Laser Beam Welded Aerospace Aluminum T-joints by Neutron Diffraction and FE-Modelling", PhD. thesis (2011), Hamburg University of Technology, Hamburg-Harburg, Germany
9. S. E. Eren, "Advancing the Damage Tolerance of Laser Beam Welded Steels using the Crenellation Technique", Ph D. thesis (2012), Imperial College London, U.K.
10. H. D. Gençkan, "Doğalgaz Boru Hatlarında Orbital Kaynak Teknolojisi Kullanılarak Yapılan Kaynakların Mikroyapı ve Mekanik Özelliklerinin İncelenmesi", Ph.D. thesis (planned for 2014), Istanbul Technical University, Istanbul, Turkey

ACADEMIC PUBLICATIONS**A. Articles published in Internationally-Refereed Journals (1)**

- A1.** M. Koçak, L. Chen, G. Terlinde, G. Gnirß and K.-H. Schwalbe, "CTOD Testing of HAZ and Analysis of Pop-in Behaviour", *Transactions of the ASME, Journal of Offshore Mechanics and Arctic Engineering*; 1990, Vol. 112, pp. 214-222
- A2.** E. Tschegg, H.O.K. Kirchner and M. Koçak, "Cracks at the Ferrite-Austenite Interface", *Acta Metall. Mater.*, 1990, Vol. 38, No. 3, pp. 469-478, *GKSS 90/E/8*
- A3.** E. Tschegg, H. O. K. Kirchner and M. Koçak, "Interfacial and Subinterfacial Cracks in the Copper-Ferrite System", *Journal of Engineering Fracture Mechanics*; 1991, Vol. 39, No. 4, pp. 739-750
- A4.** B. Petrovski and M. Koçak, "Fracture of Surface-Cracked Undermatched Weld Joint in High-Strength Steel", *Transactions of the ASME, Journal of Offshore Mechanics and Arctic Engineering*; 1993, Vol. 115, pp. 229-236
- A5.** I. Rak, M. Koçak and B. Petrovski, "Fracture Toughness Evaluation of Repair Welded Joints for Offshore Application", *Welding in the World*, 1994, Vol. 33, No. 3, pp. 168-177
- A6.** G. Çam, K.-H. Bohm, J. Müllauer and M. Koçak, "The Fracture Behaviour of Diffusion-Bonded Duplex Gamma TiAl", *JOM-The Journal of the Minerals, Metals and Materials Society*; 1996, Vol. 48, No. 11, pp. 66-68
- A7.** I. Rak, V. Gliha and M. Koçak, "Weldability and Toughness Assessment of Ti-Microalloyed Offshore Steel", *Metallurgical and Materials Transactions A*; 1997, Vol. 28, pp. 199-206
- A8.** G. Çam, M. Koçak, D. Dobi, L. Heikinheimo, and M. Siren, "Fracture Behaviour of Diffusion Bonded Bimaterial Ti-Al Joints", *Mis-Matching of Interfaces and Welds, Journal of Science and Technology of Welding and Joining*; 1997, Vol. 2, No. 3, pp. 95-101
- A9.** G. Çam, Ç. Yeni, S. Erim, V. Ventzke and M. Koçak, "Investigation into Properties of Laser Welded Similar and Dissimilar Steel Joints", *Science and Technology of Welding and Joining*; 1998, Vol. 3, No. 4, pp. 177-189
- A10.** G. Çam and M. Koçak, "Progress in Joining of Advanced Materials, Part 1: Solid State Joining, Fusion Joining, and Joining of Intermetallics", *Science and Technology of Welding and Joining*; 1998, Vol. 3, No. 3, pp. 105-125
- A11.** G. Çam and M. Koçak, "Progress in Joining of Advanced Materials, Part 2: Joining of Metal Matrix Composites and Joining of other Advanced Materials", *Science and Technology of Welding and Joining*; 1998, Vol. 3, No. 4, pp. 159-175
- A12.** G. Çam and M. Koçak, "Progress in Joining of Advanced Materials", *International Materials Reviews*; 1998, Vol. 43, No. 1, pp. 1-44
- A13.** G. Çam, H. Clemens, R. Gerling and M. Koçak, "Diffusion Bonding of Fine Grained Gamma-TiAl Sheet", *Zeitschrift für Metallkunde*; 1999, Vol. 90, No. 4, pp. 284-288
- A14.** G. Çam, H. Clemens, R. Gerling and M. Koçak, "Diffusion Bonding of Gamma-TiAl Sheets", *Intermetallics*; 1999, Vol. 7, No. 9, pp. 1025-1031

A. Articles published in Internationally-Refereed Journals (2)

- A15. G. Çam, V. Ventzke, J. F. dos Santos, M. Koçak, G. Jennequin and P. Gonthier-Maurin, "Characterization of Electron Beam Welded Al-Alloys", *Science and Technology of Welding and Joining*; 1999, Vol. 4, No. 5, pp. 317-323
- A16. S. Alexandrov, N. Chicanova and M. Koçak, "Analytical Yield Load Solution for Over-matched Center Cracked Tension Specimen", *Engineering Fracture Mechanics*; 1999, Vol. 64, pp. 383-399
- A17. M. Gu, Z. Wu, Y. Jin and M. Koçak, "Effects of Reinforcements on the Aging Response of a ZK60-based Hybrid Composite", *Materials Science & Engineering A272*; 1999, pp. 257 – 263
- A18. S. Alexandrov and M. Koçak, "Limit Load Solutions for Bilayer Plates with a Thorough Crack Subject to Tension", *Engineering Fracture Mechanics*; 1999, Vol. 64, No. 4, pp. 507-511
- A19. G. Çam and M. Koçak, "Diffusion Bonding of Investment Cast γ -TiAl", *Journal of Materials Science*; 1999, Vol. 34, GKSS-No. 99/E/58, pp. 3345-3354
- A20. G. Çam, M. Koçak and J. F. dos Santos, "Developments in Laser Beam Welding of Metallic Materials and Characterization of the Joints", *Welding in the World*; 1999, Vol. 43, No. 2, pp. 13-26
- A21. G. Çam, S. Erim, Ç. Yeni and M. Koçak, "Determination in Laser Beam Welding of Metallic Materials and Fracture Properties of Laser Beam Welded Joints", *Welding Journal Research Supplement*; 1999, Vol. 78, No. 6, pp. 193-201
- A22. Y.-J. Kim, M. Koçak, R. A. Ainsworth and U. Zerbst, "SINTAP Defect Assessment Procedure for Strength Mis-Matched Structures", *Special Issue of the Engineering Fracture Mechanics*; 2000, Vol. 67, No. 479, pp. 529-546
- A23. G. Çam, V. Ventzke, J. F. dos Santos, M. Koçak, G. Jennequin, P. Gonthier-Maurin, M. Penasa, C. Rivela and D. Bosselier, "Characterization of Laser and Electron Beam Welded Al-Alloys", *Prakt. Metallogr.*; 2000, Vol. 3, No. 2, pp. 59-89
- A24. M. Koçak, J. F. dos Santos and S. Riekehr, "Trends in Laser Beam Welding Technology and Fracture Assessment of Weld Joints", *Science and Technology of Welding and Joining*; 2001, Vol. 6, No. 6, pp. 347-350
- A25. U. Zerbst, M. Koçak and P. Huebner, "Bruchmechanische Bewertung von Schweissverbindungen", *Materialprüfung*; 2002, Vol. 44, No. 9, pp. 333-357
- A26. N. Gubeljak, U. Zerbst and M. Koçak, "Prediction of the Maximum Load of Pre-cracked Welded Plates Using Charpy Data According to the Default Level of the European SINTAP Procedure", *International Journal of Pressure Vessels and Piping*; 2002, Vol. 79, pp. 89-98
- A27. P. Staron, M. Koçak and S. Williams, "Residual Stresses in Friction Stir-Welded Al Sheets", *Applied Physics A.*; 2002, Vol. 74, pp. 1161-1162
- A28. M. Koçak, M. Pakdil and G. Çam, "Fracture Behavior of Diffusion Bonded Titanium Alloys with Strength Mismatch", *Science and Technology of Welding and Joining*; 2002, Vol. 7, No. 4, pp. 187-196

A. Articles published in Internationally-Refereed Journals (3)

- A29.** A. K. Motarjemi and M. Koçak, "Tensile Yield Load Solutions for Centre Cracked Bilayer (Clad) Plates with and without Repair Welds", *Science and Technology of Welding and Joining*; 2002, Vol. 7, No. 5, pp. 299-305
- A30.** A. K. Motarjemi and M. Koçak, "Fracture Assessment of a Clad Steel Using Various SINTAP Defect Assessment Procedure Levels", *International Journal of Fatigue and Fracture of Engineering Materials and Structures*; 2002, Vol. 25, pp. 929-939
- A31.** N. Gubeljak, L. Legat and M. Koçak, "Effect of Fracture Path on the Toughness of Weld Metal", *International Journal of Fracture*; 2002 Vol. 115, No. 4, pp. 343-359
- A32.** A. K. Motarjemi, M. Koçak and V. Ventzke, "Mechanical and Fracture Characterization of a Bi-Material Steel Plate", *International Journal of Pressure Vessels and Piping*; 2002, Vol. 79, pp. 181 – 191
- A33.** P. Nègre, D. Steglich, W. Brocks, and M. Koçak, "Numerical Simulation of Crack Extension in Aluminum Welds", *Computational Materials Science*; 2003, Vol. 28, pp. 723-731
- A34.** E. Seib, M. Koçak, and H. Assler, "Structural Integrity Assessment of Welded Aerospace Aluminum Alloy using SINTAP Route", *MP Materialprüfung – 46. Jahrgang*; 2004, No. 11-12, pp. 556-564
- A35.** E. Seib, M. Koçak and H. Assler, "Fracture Assessment of Welded Aerospace Aluminum Alloy using SINTAP Route", *Welding in the World*, 2004, Vol. 48, No. 11/12; 2004, Vol. 46 No. 11-12, pp. 2-8
- A36.** F. Gärtner, T. Stoltenhoff, J. Voyer, H. Kreye, S. Riekehr and M. Koçak, "Mechanical Properties of Cold-Sprayed and Thermally Sprayed Copper Coatings", *Int. Journal of Surface&Coatings Technology*; 2005, Vol. 20, pp. 6770-6782
- A37.** J. Besson, Y. Madia, A. Motarjemib, M. Koçak, G. Martin and P. Hornet, "Crack Initiation and Propagation Close to the Interface in a Ferrite-Austenite Joint", *Materials Science and Engineering A*; 2005, pp. 84-91
- A38.** E. Seib and M. Koçak, "Fracture Analysis of Strength Undermatched Welds of Thin-Walled Aluminum Structures using FITNET Procedure", *IIW-1709-05, Welding in the World*; 2005, Vol. 49, No. 11/12, pp. 58-69
- A39.** W. V. Vaidya, M. Horstmann, Eduard Seib, K. Toksoy and M. Koçak, "Assessment of Fracture and Fatigue Crack Propagation of Laser Beam and Friction Stir Welded Al- and Mg-Alloys", *Int. J. Advanced Engineering Materials*; 2006, Vol. 8, No. 5, pp. 399-405
- A40.** G. Çam, G. İpekoğlu, K.-H. Bohm and M. Koçak, "Investigation into the Microstructure and Mechanical Properties of Diffusion Bonded TiAl Alloys", *J. Mater. Sci.*; 2006, Vol. 41, No. 16, pp. 5273-5282
- A41.** L. I. Duarte, A. S. Ramos, M. F. Vieira, F. Viana, M. T. Vieira and M. Koçak, "Solid-State Diffusion Bonding of Gamma-TiAl Alloys using Ti/Al Thin Films as Interlayers", *Science Direct – Intermetallics*; 2006, Vol. 14, pp. 1151-1156

A. Articles published in Internationally-Refereed Journals (4)

- A42. W. V. Vaidya, K. Angamuthu, M. Koçak, R. Grube and J. Hackius, "Strength and Fatigue Resistance of Laser-MIG Hybrid Butt Welds of an Airframe Aluminium Alloy AA6013", *Welding in the world*; 2006, Vol. 50, No. 11-12, pp. 88-97
- A43. M. B. Kannan, W. Dietzel, C. Blawert, S. Riekehr and M. Koçak, "Stress Corrosion Cracking Behavior of Nd:YAG Laser Butt Welded AZ31 Mg Sheet", *Materials Science and Engineering A*; 2007, Vol. 444, pp. 220-226
- A44. D. A. Price, S. W. Williams, A. Wescott, C. J. C. Harrison, A. Rezai, A. Steuer, M. Peel, P. Staron and M. Koçak, "Distortion Control in Welding by Mechanical Tensioning", *Science and Technology of Welding and Joining*; 2007, Vol. 12, No. 7, pp. 620-633
- A45. S. Daneshpour, S. Riekehr, M. Koçak, V. Ventzke and A. I. Koruk, "Analysis of Resistance and Laser Spot Welds of Advanced High Strength Steels for Automotive Applications", *Science and Technology of Welding and Joining*; 2007, Vol. 12, pp. 508-515
- A46. S. Alexandrov and M. Koçak, "Limit load Analysis of Strength Undermatched Welded T-Joints Under Bending", *Int. Journal of Fatigue Fract. Engng. Mater Struct.*; 2007, Vol. 30, pp. 351-355
- A47. H.-G. Brokmeier, S.-J. Jin, V. Ventzke, S. Riekehr, M. Koçak and J. Homeyer, "Phase Distribution of Friction Welded Ti6Al4V/ γ -TAB", *Z. Kristallogr. Suppl.*; 2007, Vol. 26, pp. 305-310
- A48. S. Daneshpour, M. Koçak and C. Gerritsen, "Fatigue Performance of Similar and Dissimilar Joints of Resistance Spot Welded Advanced High Strength Steel Sheets under Tensile- Shear Loading", *Science and Technology of Welding and Joining*; 2007
- A49. H.-G. Brokmeier, S. Lenser, R. Schwarzer, V. Ventzke, S. Riekehr, M. Koçak and J. Homeyer, "Crystallographic Texture of Dissimilar Laser Welded Al5083-Al6013 Sheets", *Materials Science Forum*; 2007, Vol. 539-543, pp. 3894-3899
- A50. S. Daneshpour, S. Riekehr, M. Koçak, V. Ventzke and A. I. Koruk, "Failure Behaviour of Laser Spot Welds of TRIP800 Steel Sheets under Coach-Peel Loading", *Science and Technology of Welding and Joining*; 2007, Vol. 12, No. 6, pp. 508-515
- A51. M. Koçak, E. Seib and A. Motarjemi, "Treatments of Structural Welds using FITNET Fitness-for-Service Assessment Procedure", *Welding in the World*; 2007, Vol. 51, No. 5/6, pp. 106-118
- A52. M. Koçak, "FITNET Fitness-for-Service Procedure: An Overview", *International Institute of Welding, Welding in the World*; 2007 (May-Jun.), Vol. 51, No. 5-6, pp. 94-105
- A53. M.-V. Uz, M. Koçak, F. Lemaitre, J.-C. Ehrström, S. Kempa and F. Bron, "Improvement of Damage Tolerance of Laser Beam Welded Stiffened Panels for Airframes via Local Engineering", *Int. Journal of Fatigue*; 2008, Vol. 31, No. 5, pp. 916-926
- A54. Ç. Yeni and M. Koçak, "Fracture Analysis of Laser Beam Welded Superalloys Inconel 718 and 625 using the FITNET Procedure", *International Journal of Pressure Vessels and Piping*; 2008, Vol. 85, No. 8, pp. 532-539

A. Articles published in Internationally-Refereed Journals (5)

- A55.** G. Çam, U. Özdemir, V. Ventzke and M. Koçak, "Microstructural and Mechanical Characterization of Diffusion Bonded Hybrid Joints", *J. Mater. Sci.*; 2008, Vol. 43, No. 10, pp. 3491-3499
- A56.** R. S. Coelho, A. Kostka, H. Pinto, S. Riekehr, M. Koçak and A. R. Pyzalla, "Microstructure and Mechanical Properties of Magnesium Alloy AZ31B Laser Beam Welds", *Materials Science and Engineering A*; 2008, Vol. 485, No. 1-2, pp. 20-30
- A57.** F. S. Bayraktar, P. Staron, M. Koçak and A. Schreyer, "Analysis of Residual Stress in Laser Welded Aerospace Aluminum T-joints by Neutron Diffraction and Finite Element Modelling", *Materials Science Forum*; 2008, Vol. 571-572, pp. 355-360
- A58.** S. Cicero, Ç. Yeni and M. Koçak, "Fracture Analysis of Strength Undermatched Al-Alloy Welds in Edge Cracked Tensile Panels using FITNET Procedure", *Int. Journal Fatigue and Fracture of Engineering Materials and Structures*; 2008, Vol. 31, No. 9, pp. 738-753
- A59.** R. S. Coelho, A. Kostka, H. Pinto, S. Riekehr, M. Koçak and A. R. Pyzalla, "Microstructure and Residual Stresses in Dissimilar Mg-Al-Zn-alloy Single Overlap Laser Beam Welds", *Materials Science Forum*; 2008, Vol. 571-572, pp. 361-366
- A60.** S. Daneshpour, S. Riekehr, M. Koçak and C. H. J. Gerritsen, "Mechanical and Fatigue Behaviour of Laser and Resistance Spot Welds in Advanced High Strength Steels", *Science and Technology of Welding and Joining*; (also Doc. X-1642-08) 2008, Vol. 14, No. 1, pp. 20-25
- A61.** W. Machold, P. Stron, F. Bayraktar, S. Riekehr, M. Koçak and A. Schreyer, "Influence of the Welding Sequence on Residual Stresses in Laser Welded T-joints of an Airframe Aluminum", *Materials Science Forum*; 2008, Vol. 571-572, pp 375-380
- A62.** P. Martinson, S. Daneshpour, M. Koçak, S. Riekehr and P. Staron, "Residual Stress Analysis of Laser Spot Welding of Steel Sheets", *Materials and Design*; 2009, Vol. 30, No. 9, pp. 3351-3359
- A63.** S. Daneshpour, M. Koçak, S. Langlade and M. Horstmann, "Effect of Overload on Fatigue Crack Retardation of Aerospace Al-Alloy Laser Welds using Crack-Tip Plasticity Analysis", *International Journal of Fatigue*; 2009, Vol. 30, No. 10, pp. 1603-1612
- A64.** W. V. Vaidya, M. Horstmann, V. Ventzke, B. Petrovski, M. Koçak, R. Kocik and G. Tempus, "Structure-Property Investigations on a Laser Beam Welded Dissimilar Joint of Aluminum AA6056 and Titanium Ti6Al4V for Aeronautical Applications, Part I: Local Gradients in Microstructure, Hardness and Strength", *Mat.-wiss. u. Werkstofftech.*; 2009, Vol. 40, No. 8, pp. 623-633
- A65.** W. V. Vaidya, M. Horstmann, V. Ventzke, B. Petrovski, M. Koçak, R. Kocik and G. Tempus, "Structure-Property Investigations on a Laser Beam Welded Dissimilar Joint of Aluminum AA6056 and Titanium Ti6Al4V for Aeronautical Applications, Part II: Resistance to Fatigue Crack Propagation and Fracture", *Mat.-wiss. u. Werkstofftech.*; 2009, Vol. 40, No. 10, pp. 769-779

A. Articles published in Internationally-Refereed Journals (6)

- A66.** S. Daneshpour, M. Koçak, F. S. Bayraktar and S. Riekehr, "Damage Tolerance Analyses of Laser Welded "SKIN-CLIP" Joints for Aerospace Applications", *Welding in the World*; 2009, Vol. 53, No. 3/4, pp. 1922-08
- A67.** P. Staron, W. V. Vaidya and M. Koçak, "Precipitates in Laser Beam Welded Aluminium Alloy Aa6056 Butt Joints Studied by Small-Angle Neutron Scattering", *Materials Science and Engineering A*; 2009, Vol. 525, pp. 192-199
- A68.** P. B. Srinivasan, S. Riekehr, C. Blawert, W. Dietzel and M. Koçak, "Slow Strain Rate Stress Corrosion Cracking Behaviour of As-Welded and Plasma Electrolytic Oxidation Treated Az31hp Magnesium Alloy Autogenous Laser Beam Weldment", *Materials Science and Engineering A*; 2009, Vol. 517, pp. 197-203
- A69.** S. Simões, F. Viana, V. Ventzke, M. Koçak, A. S. Ramos, M. T. Vieira and M. F. Vieira, "Diffusion Bonding of TiAl using Ni/Al Multilayers", *J. Mater. Sci.*; 2010, Vol. 45, No. 16, pp. 4351-4357
- A70.** W. V. Vaidya, M. Horstmann, K. Angamuthu and M. Koçak, "Parametric (Non)-Variance of the Mid-Regime Fatigue Crack Propagation in an Aluminum Alloy AA6056-T6", *MP Materials Testing*; 2010, Vol. 52 No. 5, pp. 300-305
- A71.** S. Grünenwald, T. Seefeld, F. Vollertsen and M. Koçak, "Solutions for Joining Pipe Steels using Laser-GMA-Hybrid Welding Process", *Physics Procedia*; 2010, Vol. 5, pp. 77-87
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