

# Europass Curriculum Vitae

## Personal information

|                      |                                |        |                            |
|----------------------|--------------------------------|--------|----------------------------|
| First name / Surname | Pavel Konopík                  |        |                            |
| Address              | Žlutická 1666/35, 323 00 Plzeň |        |                            |
| T:                   | +420 377 197 350               | M:     | +420 723 883 915           |
| F:                   | +420 377 197 310               | E:     | pavel.konopik@comtesfht.cz |
| Nationality          | Czech Republic                 |        |                            |
| Date of birth        | 23/12/1981                     | Gender | male                       |



## Education and training

|                                |                                                                                                             |
|--------------------------------|-------------------------------------------------------------------------------------------------------------|
| Dates                          | 2008 - 2014                                                                                                 |
| Title of qualification awarded | Degree Ph.D. in the field Material Science                                                                  |
| Principal subjects             | Thesis: "The Compatibility of the Results of the Evaluation of Structural Materials' Mechanical Properties" |
| Name of organisation           | University of West Bohemia, Faculty of Mechanical Engineering                                               |
| Dates                          | 2002 - 2007                                                                                                 |
| Title of qualification awarded | Master degree Ing. in "Material science and Engineering Metallurgy"                                         |
| Principal subjects             | Master thesis: "Preparation of nanoadditives for inorganic-organic coatings and films of new generation"    |
| Name of organisation           | University of West Bohemia, Faculty of Mechanical Engineering                                               |
| Dates                          | 1997-2002                                                                                                   |
| Title of qualification awarded | Technical High School Pilsen, Studies in the field of civil engineering                                     |
| Principal subjects             | Building Industry                                                                                           |
| Name of organisation           | SOU Stavební, Borská 55                                                                                     |

## Work experience

|                                      |                                                                                                                                                                                                                                                                                   |
|--------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Dates                                | 2007-now                                                                                                                                                                                                                                                                          |
| Occupation or position held          | Research scientist, from 1.1.2013 Head of the Mechanical Testing and Thermophysical Measurement Department                                                                                                                                                                        |
| Main activities and responsibilities | <ul style="list-style-type: none"> <li>• Research in the field of mechanical testing</li> <li>• Management of researchers and technicians</li> <li>• Development of small sample test techniques</li> <li>• Projects management</li> <li>• International collaboration</li> </ul> |
| Employer                             | COMTES FHT a.s.                                                                                                                                                                                                                                                                   |
| Type of business or sector           | Engineering, Research and development                                                                                                                                                                                                                                             |
| Dates                                | January 2012 – April 2012                                                                                                                                                                                                                                                         |
| Occupation or position held          | Research scientist                                                                                                                                                                                                                                                                |
| Main activities and responsibilities | Development of measuring methods in the field of fracture mechanics                                                                                                                                                                                                               |
| Employer                             | Helmholtz-Zentrum Dresden-Rossendorf Institut, Germany.                                                                                                                                                                                                                           |
| Type of business or sector           | Engineering, Research and development                                                                                                                                                                                                                                             |

## Research and scientific activities

|               |                                                                                                                                                                                                                                                              |
|---------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Dates         | 2020-2023                                                                                                                                                                                                                                                    |
| Project title | FW02020149 - Contactless extensometer for multiaxial testing of material properties of micro-samples with strain control feedback at high temperatures                                                                                                       |
| Position      | Researcher – team leader                                                                                                                                                                                                                                     |
| Sector        | Engineering, Research and development                                                                                                                                                                                                                        |
| Dates         | 2019-2022                                                                                                                                                                                                                                                    |
| Project title | FV40166 - Evaluation of degraded steels for the construction of turbines and superheaters of power boilers (for the need to predict residual service life time and local repairs                                                                             |
| Position      | Researcher – team leader                                                                                                                                                                                                                                     |
| Sector        | Engineering, Research and development                                                                                                                                                                                                                        |
| Dates         | 2019-2022                                                                                                                                                                                                                                                    |
| Project title | 814517 – FormPlanet; Sheet metal forming testing hub                                                                                                                                                                                                         |
| Position      | Member of the research team                                                                                                                                                                                                                                  |
| Sector        | Engineering, Research and development                                                                                                                                                                                                                        |
| Dates         | 2019-2021                                                                                                                                                                                                                                                    |
| Project title | TF06000075                                                                                                                                                                                                                                                   |
| Position      | Advanced Materials Model Integration for CAE Applications                                                                                                                                                                                                    |
| Sector        | Engineering, Research and development                                                                                                                                                                                                                        |
| Dates         | 2017-2020                                                                                                                                                                                                                                                    |
| Project title | TH02020448 - Assessment of serviceability of equipment using subsize test specimen                                                                                                                                                                           |
| Position      | Member of the research team                                                                                                                                                                                                                                  |
| Sector        | Engineering, Research and development                                                                                                                                                                                                                        |
| Dates         | 2017-2019                                                                                                                                                                                                                                                    |
| Project title | TH02010544 - The development of a non-destructive measuring system combining digital image correlation with thermoelastic stress analysis                                                                                                                    |
| Position      | Principal investigator                                                                                                                                                                                                                                       |
| Sector        | Engineering, Research and development                                                                                                                                                                                                                        |
| Dates         | 2015-2019                                                                                                                                                                                                                                                    |
| Project title | LO1412 West Bohemian Centre Development                                                                                                                                                                                                                      |
| Position      | Member of the research team                                                                                                                                                                                                                                  |
| Sector        | Engineering, Research and development                                                                                                                                                                                                                        |
| Dates         | 2014-2017                                                                                                                                                                                                                                                    |
| Project title | TA04020806 The selection and implementation of procedures for low-cycle fatigue evaluating of reactor pressure vessel internals including multiaxial stress state                                                                                            |
| Position      | Member of the research team                                                                                                                                                                                                                                  |
| Sector        | Engineering, Research and development                                                                                                                                                                                                                        |
| Dates         | 2014-2015                                                                                                                                                                                                                                                    |
| Project title | CZ.1.05/3.1.00/14.0309 Development of pre-seed activities in COMTES FHT                                                                                                                                                                                      |
| Position      | Researcher – team leader of activity 6 - Methodology for evaluating the operability of equipment and structures using small samples                                                                                                                          |
| Sector        | Engineering, Research and development                                                                                                                                                                                                                        |
| Dates         | 2012-2015                                                                                                                                                                                                                                                    |
| Project title | TA ČR, ALFA TA02010992 - Development and verification of new numerical methods for welding and heat treatment, including simplified numerical life prediction of welded joints, for advanced materials used in the energy, aviation and aerospace industries |
| Position      | Member of the research team                                                                                                                                                                                                                                  |

|               |                                                                                                                                                  |
|---------------|--------------------------------------------------------------------------------------------------------------------------------------------------|
| Sector        | Engineering, Research and development                                                                                                            |
| Dates         | 2012-2014                                                                                                                                        |
| Project title | MŠMT CZ.1.07/2.3.00/35.0048 - Popularization of research and development in mechanical engineering and its results                               |
| Position      | Manager of the key activities 5 - We have open                                                                                                   |
| Sector        | Engineering, Research and development                                                                                                            |
| Dates         | 2011-2014                                                                                                                                        |
| Project title | MŠMT VaVpI, ED2.1.00/03.0077 - West-Bohemian Centre of Materials and Metallurgy                                                                  |
| Position      | Junior Researcher, Member of the research team                                                                                                   |
| Sector        | Engineering, Research and development                                                                                                            |
| Dates         | 2011-2014                                                                                                                                        |
| Project title | MPO ČR, FR-TI3/352, Equipment for the reception and processing of sugar cane                                                                     |
| Position      | Member of the research team                                                                                                                      |
| Sector        | Engineering, Research and development                                                                                                            |
| Dates         | 2011-2014                                                                                                                                        |
| Project title | TA ČR, ALFA TA01020985 - Development and modernization of hinges blades of steam turbines in terms of improving their reliability and durability |
| Position      | Member of the research team                                                                                                                      |
| Sector        | Engineering, Research and development                                                                                                            |
| Dates         | 2010-2013                                                                                                                                        |
| Project title | MPO ČR, FR-TI2/489, Improving the passive safety of the bus                                                                                      |
| Position      | Member of the research team                                                                                                                      |
| Sector        | Engineering, Research and development                                                                                                            |
| Dates         | 2009-2011                                                                                                                                        |
| Project title | MPO ČR, FR-TI1/363 - Research and development of lightweight, safe and ergonomic railway seat                                                    |
| Position      | Member of the research team                                                                                                                      |
| Sector        | Engineering, Research and development                                                                                                            |
| Dates         | 2006-2008                                                                                                                                        |
| Project title | GA ČR, GA101/06/1343, Increasing the strength of permanent joints of high-strength steels                                                        |
| Position      | Member of the research team                                                                                                                      |
| Sector        | Engineering, Research and development                                                                                                            |

### Personal skills and competences

Mother tongue Czech

Other language  
Self-assessment  
*European level (\*)*

English

German

| Understanding       |                     | Speaking            |                     | Writing |                  |
|---------------------|---------------------|---------------------|---------------------|---------|------------------|
| Listening           | Reading             | Spoken interaction  | Spoken production   |         |                  |
| B2 Independent User | B2 Independent User | B1 Independent User | B1 Independent User | B2      | Independent User |
| A2 Basic User       | A2 Basic User       | A2 Basic User       | A2 Basic User       | A2      | Basic User       |

(\*) Common European Framework of Reference for Languages

Social skills and competences

Teamwork  
Communicative  
Representative

Organisational skills and competences

Project Management  
Team leading

|                                                 |                                                                                                                                                                                                                                                                                                              |
|-------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Computer skills and competences                 | Good knowledge of Microsoft Office (Word, Excel, PowerPoint)                                                                                                                                                                                                                                                 |
| Technical skills and competences                | Mechanical testing; certification of material according to ISO and ASTM standards; small sample test techniques; testing under various conditions - quasi-static, dynamic, from -196 °C to +1400°C, multiaxial loading; fracture mechanics; fatigue; creep; advanced material models (plasticity, fracture); |
| Member of scientific and technical organization | European Structural Integrity Society - ESIS);                                                                                                                                                                                                                                                               |
| Driving licence                                 | Category A, B                                                                                                                                                                                                                                                                                                |

## Publications

### Selected key publications (max. 10)

**Prochazka, R; Slama, P; Dlouhy, J; Konopik, P; Trojanova, Z:** Local Mechanical Properties and Microstructure of EN AW 6082 Aluminium Alloy Processed via ECAP-Conform Technique; MATERIALS, Volume 13, Issue 11, 2020, DOI: 10.3390/ma13112572

**Kumar, MRS; Schmidova, E; Konopik, P; Melzer, D; Bozkurt, F; Londe, NV:** Fracture Toughness Analysis of Automotive-Grade Dual-Phase Steel Using Essential Work of Fracture (EWF) Method; METALS, Volume 10, Issue 8, 2020, DOI: 10.3390/met10081019

**Farahnak, P; Urbanek, M; Konopik, P; Dzugan, J:** Influence of thickness reduction on forming limits of mild steel DC01; INTERNATIONAL JOURNAL OF MATERIAL FORMING, 13, pages371–381, 2020, DOI: 10.1007/s12289-019-01513-3

**Konopik, P; Rund, M; Rzepa, S; Dzugan, J; Melzer, D:** Compatibility of fracture toughness results in the upper shelf region, 3RD INTERNATIONAL CONFERENCE ON STRUCTURAL INTEGRITY (ICSI 2019), pp. 479 – 486, DOI 10.1016/j.prostr.2019.08.063

**Jirková, H., Rubešová, K., Konopík, P., Opatová, K.:** Effect of the parameters of semi-solid processing on the elimination of sharp-edged primary chromium carbides from tool steel, Metals, Volume 8, Issue 9, Article number 713, 12 September 2018, DOI: 10.3390/met8090713

**Dzugan, J., Seifi, M., Prochazka, R., Podany, P., Konopik, P., Lewandowski, J.J.:** Effects of thickness and orientation on the small scale fracture behaviour of additively manufactured Ti-6Al-4V, Materials Characterization, Volume 143, Pages 94-109, September 2018, DOI: 10.1016/j.matchar.2018.04.003

**Dzugan, J., Spaniel, M., Prantl, A., Konopik, P., Ruzicka, J., Kuzelka, J.:** Identification of ductile damage parameters for pressure vessel steel, Nuclear Engineering and Design, Jan. 2016, doi:10.1016/j.nucengdes.2015.12.014. Počet citací: Scopus / 0 Web of Science

**Džugan, J., Procházka, R., and Konopík, P.,** "Micro-Tensile Test Technique Development and Application to Mechanical Property Determination," Small Specimen Test Techniques, 6th Volume, STP 1576, Mikhail A. Sokolov and Enrico Lucon, Eds., s. 12–29, doi:10.1520/STP157620140022, ASTM International, West Conshohocken, PA 2014. Počet citací (bez autocitací): 4 Scopus / 0 Web of Science

**Konopík, K., Džugan, J, Procházka R:** Evaluation of Local Mechanical Properties of Steel Weld by Miniature Testing Techniques, Materials Science & Technology 2013, Montreal, Canada, October 27–31 2013, ISBN 978-0-87339-762-9

**Konopík, P., Džugan, J.:** Fracture Toughness Characterization of Structural Steels in the Brittle and Ductile States by Small Punch Test, The 3th International Conference SSTT, Austria, 23.09 – 25.09. 2014 ISBN 978-80-260-6722-1

## All publications

2020

**Kumar, MRS; Schmidova, E; Konopik, P; Melzer, D; Bozkurt, F; Londe, NV:** Fracture Toughness Analysis of Automotive-Grade Dual-Phase Steel Using Essential Work of Fracture (EWF) Method; METALS, Volume 10, Issue 8, 2020, DOI: 10.3390/met10081019

**Prochazka, R; Slama, P; Dlouhy, J; Konopik, P; Trojanova, Z:** Local Mechanical Properties and Microstructure of EN AW 6082 Aluminium Alloy Processed via ECAP-Conform Technique; MATERIALS, Volume 13, Issue 11, 2020, DOI: 10.3390/ma13112572

**Farahnak, P; Urbanek, M; Konopik, P; Dzugan, J:** Influence of thickness reduction on forming limits of mild steel DC01; INTERNATIONAL JOURNAL OF MATERIAL FORMING, 13, pages371–381, 2020, DOI: 10.1007/s12289-019-01513-3

2019

**Konopik, P; Rund, M; Chvostova, E:** STRAIN RATE INFLUENCE ON FRACTURE TOUGHNESS DETERMINED BY SMALL SAMPLES, 28TH INTERNATIONAL CONFERENCE ON METALLURGY AND MATERIALS, pp. 593-598 (METAL 2019)

**Chvostova, E; Konopik, P:** INVESTIGATION OF CREEP PROPERTIES THROUGH SUB-SIZE SPECIMEN, 28TH INTERNATIONAL CONFERENCE ON METALLURGY AND MATERIALS (METAL 2019), 679-684

**Kepka, M; Kepka, M; Dzugan, J; Konopik, P:** Practical notes for assessing the fatigue life of bodyworks of buses and trolleybuses, FATIGUE DESIGN 2019, INTERNATIONAL CONFERENCE ON FATIGUE DESIGN, 8TH EDITION, pp. 595-603

**Konopik, P; Rund, M; Rzepa, S; Dzugan, J; Melzer, D:** Compatibility of fracture toughness results in the upper shelf region, 3RD INTERNATIONAL CONFERENCE ON STRUCTURAL INTEGRITY (ICSI 2019), pp. 479 – 486, DOI 10.1016/j.prostr.2019.08.063

2018

**Jirková, H., Rubešová, K., Konopík, P., Opatová, K.:** Effect of the parameters of semi-solid processing on the elimination of sharp-edged primary chromium carbides from tool steel, Metals, Volume 8, Issue 9, Article number 713, 12 September 2018, DOI: 10.3390/met8090713

**Dzugan, J., Seifi, M., Prochazka, R., Podany, P., Konopik, P., Lewandowski, J.J.:** Effects of thickness and orientation on the small scale fracture behaviour of additively manufactured Ti-6Al-4V, Materials Characterization, Volume 143, Pages 94-109, September 2018, DOI: 10.1016/j.matchar.2018.04.003

**Rund, M., Mašek, M., Dzugan, J., Konopík, P., Janovec, J.:** Experiment and finite element analysis of U-profile subjected to dynamic loading, EPJ Web of Conferences, Volume 183, 7 September 2018

2017

**Konopík, P., Džugan, J., Urbánek, M., Rund, M., Procházka, R., :** Use of micro-tensile tests results for improvement of fem simulation of steel weld, METAL 2017, MAY 24-26, Brno, Czech Rep., Pages: 856-862

**P. Konopík, M. Rund, J. Džugan:** Determination of Flow Stress Curves of Zirconium Alloy by Dynamic Micro-Tensile Test Using Strain Gauge Technique, 7th International Conference on Mechanics and Materials in Design M2D2017, Albufeira (Algarve)/Portugal, 11-15 June 2017.

**R. Procházka, J. Džugan, P. Konopík, M. Rund:** Investigation of high strength stainless steel using small specimen test techniques - tensile and fatigue properties, 7th International Conference on Mechanics and Materials in Design M2D2017, Albufeira (Algarve)/Portugal, 11-15 June 2017.

**J. Džugan, P. Konopík, R. Procházka, Z. Trojanová:** SPD processed materials mechanical properties determination with the use of miniature specimens, Materials Science Forum, Volume 879, 2017, Pages 471-476.

**P. Konopík, J. Džugan, T. Bucki, S. Rzepa, M. Rund and R. Procházka:** Correlation between standard Charpy and sub-size Charpy test results of selected steels in upper shelf region, IOP Conf. Series: Materials Science and Engineering 179 (2017) 012039 doi:10.1088/1757-899X/179/1/012039.

**P. Farahnak, A. Prantl, J. Džugan, P. Konopík and R. Procházka:** Sheet necking prediction in forming limit diagrams with the anisotropy influence incorporation, IOP Conf. Series: Materials Science and Engineering 179 (2017) 012023 doi:10.1088/1757-899X/179/1/012023

**J. Džugan, M. Sibr, P. Konopík, R. Procházka and M. Rund:** Mechanical properties determination of AM components, IOP Conf. Series: Materials Science and Engineering 179 (2017) 012019 doi:10.1088/1757-899X/179/1/012019.

**S. Rzepa, T. Bucki, P. Konopík, J. Džugan, M. Rund, R. Procházka:** Influence of specimen dimensions on ductile-to-brittle transition temperature in Charpy impact test, IOP Conf. Series: Materials Science and Engineering 179 (2017) 012063 doi:10.1088/1757-899X/179/1/012063.

**J. Džugan, R. Procházka, P. Konopík:** Low cycle fatigue tests with the use of miniaturized test specimens, Pressure Vessels and Piping (PVP-2017), Waikoloa, Hawaii, USA, July 16-20, 2017.

**Džugan, J., Rund, M., Prantl, A., Konopík, P.:** Mini-tensile specimen application for sheets characterization, IOP Conf. Series: Materials Science and Engineering 179 (2017) 012020, doi:10.1088/1757-899X/179/1/012020.

2016

**DŽUGAN, J., RUND, M., PRANTL, A., KONOPÍK, P.:** Mini-tensile specimen application for anisotropy, strain hardening and strain rate sensitivity evaluation of sheet, 9th Forming Technology Forum 2016 Advanced Methods in Material Testing for Sheet Metal Forming September 12th - 13 th, 2016, Ohlstadt/Garmisch-Partenkirchen, Germany.

**KONOPÍK, P., DŽUGAN, J., RUND, M., PROCHÁZKA, R.:** Determination of current mechanical properties of components in service using sub-sized specimens, Baltica X - 2016 - Life Management and Maintenance for Power Plants, 7-9.6 2016, Helsinki- Stockholm- Helsinki.

**KONOPÍK, P., DŽUGAN, J., RUND, M., PROCHÁZKA, R.:** Determination of local mechanical properties of metal components by hot micro-tensile test, 25th international conference on metallurgy and materials metal 2016, May 25th - 27th 2016 / Hotel Voronez I, Brno, Czech Republic

**DŽUGAN, J., KONOPÍK, P., PROCHÁZKA, R., Trojanová, Z.:** SPD processed materials mechanical properties determination with the use of miniature specimens, THERMEC'2016 International Conference on Processing & Manufacturing of advanced Materials, May 29 -June 3, 2016 GRAZ, Austria.

**Džugan, J., Sindelarova, M., Procházka, R., Konopík, P.:** Specimens preparation influence on results of Micro-Tensile Tests, 2016 International Conference on Advanced Material Science and Mechanical Engineering, AMSME2016 will be held on March 20-21, 2016, Bangkok, Thailand.

**Džugan, J., Spaniel, M., Prantl, A., Konopík, P., Ruzicka, J., Kuzelka, J.:** identification of ductile damage parameters for pressure vessel steel, Nuclear Engineering and Design, Jan. 2016, doi:10.1016/j.nucengdes.2015.12.014.

2015

**Dzugan, J., Konopík, P., Rund, M., Prochazka, R.:** Determination of Local Tensile and Fatigue Properties With the Use of Sub-Sized Specimens, ASME 2015 Pressure Vessels and Piping Conference.

**Dzugan, J., Konopík, P. Kuzelka, J., Prantl, A., Ruzicka, J., Spaniel, M.:** Ductile damage parameters identification for materials used in the nuclear industry, Plasticity 2015: Montego Bay, Jamaica, Jan. 4-9, 2015.

**Konopík, P., Rund, M., Džugan, J.:** Investigation of the mechanical behaviour of zirconium alloy at different strain rates using sub-size tensile specimens, M2D2015, P. Delgada, Portugal, ISBN: 978-989-98832-3-9

**Konopík, P., Džugan, J., Rund, M.:** Determination of fracture toughness in the upper shelf region using small sample test techniques, METAL 2015, 6-5. June, Brno, Czech Rep. ISBN 978-80-87294-58-1

**Džugan, J., Procházka, R., Konopík, P.,** "Micro-Tensile Test Technique Development and Application to Mechanical Property Determination," Small Specimen Test Techniques, 6th Volume, STP 1576, Mikhail A. Sokolov and Enrico Lucon, Eds., pp. 1–19, doi:10.1520/STP157620140022, ASTM International, West Conshohocken, PA 2015.

2014

**Procházka, R., Džugan, J., Konopík, P.:** Fatigue properties evaluation with the use of miniature samples, International Conference on Fatigue Damage of Struct. Mat., 21-26 September 2014, Hyannis, Massachusetts, USA.

**Rund, M., Dzugan, J., Prochazka, R., Konopík, P. :** Dynamic properties determination of titanium alloy, Hopkinson Centenary Conference Cambridge, 9 – 11 September 2014, Cambridge, United Kingdom

**Konopík, P., Potužník, L., Rund, M.:** Difference between 2D and 3D capturing and influence of strain rate on FLC diagram of DC.01 steel, Journal of Achievements in Materials and Manufacturing Engineering, 18.5.2015, ISSN 1734-8412

**Konopík, P., Džugan, J., Rund, M.:** Dynamic Tensile and Micro-Tensile Testing Using DIC Method, METAL 2014, 21.-23. May, ISBN 978-80-87294-54-3, pp 498-503

**Konopík, P., Džugan, J.:** Fracture Toughness Characterization of Structural Steels in the Brittle and Ductile States by Small Punch Test, The 3th International Conference SSTT, Austria, 23.09 – 25.09. 2014 ISBN 978-80-260-6722-1

**Džugan, J., Konopík, P., Procházka, R.:** Local Dynamic Properties Determination Of Titanium Turbine Blade, Asian Conference on Mechanics of Functional Materials and Structures, 10-13 October 2014, Nara, Japan. ISBN 978-4-9904352-1-9

**Džugan, J., Urbánek, M., Rund, M., Konopík, P., Procházka, R.:** FEM simulation of weld using local mechanical properties determination, IMT 2014, Portorož, Slovenia

**Dzugan, J., Novy, Z., Konopík, P., Podany, P., Folkova, E.:** Creep properties of heat affected zone in heterogeneous welded rotor, Advances in Materials Technology for Fossil Power Plants: Proceedings from the Seventh International Conference (EPRI 2013), January 31, 2014, ISBN-13: 978-1627080606, pp. 924-935.

2013

**Dzugan, J., Prantl, A., Spaniel, M., , Konopík, P., Ruzicka, J., i Kuzelka, J.:** Identification of ductile damage parameters for pressure vessel steel, San Francisco, USA, SMIRT-22, 18-30 September 2013, ISBN 978-1-63266-762-5

**Džugan, J., Konopík, P., Procházka, R.:** Determination of local mechanical properties for fem simulations, IMT 2013, Portorož, Slovenia, 13. - 15. 11. 2013 ISSN 1580-2949

**Konopík, K., Džugan, J., Procházka R:** Evaluation of Local Mechanical Properties of Steel Weld by Miniature Testing Techniques, Materials Science & Technology 2013, Montreal, Canada, October 27–31 2013, ISBN 978-0-87339-762-9

**Džugan J., Konopík P., Procházka R:** Mechanical Characterization of Nanomaterials with the Use of Mini – samples, setkání řešitelů projektu Nanotým VŠB-TU Ostrava, 21.2. - 22.2.2013, Kopřivnice, Czech Rep.

**Konopík P., Džugan J., Procházka R:** Determination of Fracture Toughness and Tensile Properties of Structural Steels by Small Punch Test and Micro-Tensile Test, conference proceedings METAL 2013, 15-17. May, Brno, Czech Rep., ISBN 978-80-87294-41-3

**Marešová, M., Konopík, P.:** Tensile Testing at High Strain Rates using DIC Method, conference proceedings METAL 2013, 15-17. May, Brno, Czech Rep., 1533-1537, ISBN 978-80-87294-41-3

**Prantl, A., Růžicka, J., Španiel, M., Moravec, M., Džugan, J., Konopík, P.:** Identification of Ductile Damage Parameters, Simulia Community Conference, May 22—24, 2013, VIENNA, AUSTRIA

**Duchek, M., Kubina, T. Konopík, P.:** Determination of Deformation Characteristics of C38ML Microalloyed, Applied Mechanics and Materials, pp 91-96, Switzerland 07/2013, ISSN 1662-7482

2012

**Konopík P., Džugan J.:** Determination of Tensile Properties of Low Carbon Steel and Alloyed Steel 34CrNiMo6 by Small Punch Test and Micro-Tensile Test, 2<sup>st</sup> International Conference SSTT, 2.10.-4.10.2012, Ostrava, Czech Republic, ISBN 978-80-260-0079-2

**Konopík P., Viehrig, H.-V.:** Fracture Toughness Characterization of the Martensitic Chromium Steel P91, COMAT 2012, 20-22.11.2012, Plzeň, Czech Rep., ISBN 978-80-87294-34-5

**Džugan J., Spaniel, M., Konopík P.:** Identification of Ductile Damage Parameters for Austenitic Steel, May 2012, International Journal of Mechanical, Aerospace, Industrial, Mechatronic and Manufacturing Engineering, USA, 1297-1302, ISSN 2010-3778

**Džugan J., Konopík P.:** Small Punch Test Application To Material Properties Evolution Determination, Journal of Solid Mechanics and Materials Engineering, 2012, Kobe (Japan), pp. 782-791, ISSN 1880-9871

**Džugan J., Konopík P., Prantl, A.:** Ductile Damage Parameters Identification for Nuclear Power Plants Experimental Part, COMAT 2012, 21. - 22. 11. 2012, Plzeň, Czech Republic, ISBN 978-80-87294-34-5

2011

**Džugan J., Konopík P., Procházka R.:** Mechanical properties determination for nanomaterials, 1.odborne diskuzni forum nanotechnologie, Ostravice, November 15.-16., 2011, Czech Republic

**Konopík P., Džugan J.:** Mechanical properties evaluation using small punch test and micro-tensile test samples, Euromat 2011, September 12-15, 2011, Montpellier, France

**Džugan J., Donátová M., Konopík P., Dlouhý J.:** Fatigue life improvement of metal sheets made of 34CrNiMo6 steel, Metal 2011, 18. - 20. května 2011, Brno

2010



**Džugan, J., Konopík, P.:** Small punch tester tensile properties and fracture toughness determination, COMAT 2010, 25-26.11, 2010, Pilsen Czech Republic

**Džugan J., Konopík P., Nový Z., Motyčka P.:** Improvement of Fatigue Properties of 34CrNiMo6 Steel by Controlled Thermomechanical Treatment, Metal 2010, 18.-20.5.2010, Rožnov pod Radhoštěm, Česká republika

**Džugan J., Konopík P.:** Evaluation Of Fracture Toughness Properties For Low Carbon Steel In The Brittle State By Small Punch Test Technique, The 1<sup>st</sup> International Conference SSTT, 31.8.-2.9.2010, Ostrava, Czech Republic, Metallurgical Journal, ISSN 0018-8069

**Konopík, P., Džugan J.:** Small Punch Test Application To Fracture Toughness Determination In The Upper Shelf Region, The 1<sup>st</sup> International Conference SSTT, 31.8.-2.9.2010, Ostrava, Czech Republic, Metallurgical Journal, ISSN 0018-8069

**Hosnedl, P., Nový, Z., Konopík, P., Džugan, J., Tikal, F.:** Structural Materials And Fluoride Salts For High Temperature Applications, COMAT 2010, 25 – 26 November 2010, ISBN: 978-80-254-8683-2

**Džugan J., Konopík P.:** Small Punch Tests For Tensile Properties and Fracture Toughness Determination, COMAT 2010, 25 – 26 November 2010, ISBN: 978-80-254-8683-2

**Džugan, J., Konopík, P.:** Vyhodnocení tahových vlastností a lomové houževnatosti pomocí small punch testu, Křehký lom, 4.11, 2010, Brno, Česká Republika

**Konopík, P., Džugan, J.:** Stanovení křehkolomových charakteristik pomocí SPT, Žínkovy 2010, ISBN: 978-80-7043-885-5.

2009

**Džugan, J., Konopík, P., Zemko, M., Varga, R., Hosnedl, P.:** Tensile Properties Determination of Ni-Alloy With The Use of Small Punch Test Technique, 26th Danubia-Adria Symposium on Advances Experimental Mechanics, 23rd - 26th September 2009, Leoben, Austria

2008

**Džugan, J., Konopík, P., Motyčka, P., Nový, Z., Stejskal, O.:** Application of Physical Simulator to Forming Processes Simulation, Metal 2008, 13. - 15. 5. 2008, Červený zámek, Hradec nad Moravicí. Česká republika. ISBN 978 -80-254-1987-8

**Džugan, J., Nový, Z., Konopík, P., Motyčka, P., Stejskal, O.:** Fatigue Life Optimization of 34CrNiMo6 Steel by Thermomechanical Treatment With The Use of Physical Simulator , AMPT 8, 2-5. 11.2008, Bahrain

**Konopík, P., Džugan, J., Nový, Z., Podaný, P.:** Verification of physical simulator applicability for hot rolling simulation, Junior-Euromat, 14-18 July 2008, Lausanne, Switzerland.

## Other achieved results of research and development

### Utility models

**Fixture for biaxial samples loading for ductile damage identification**, doc. Ing. Ján Džugan Ph.D., Ing. Antonín Prantl CSc., doc. Ing. Miroslav Španiel CSc., Ing. Miloš Moravec, Bc Jiří Suchý, Ing. Pavel Konopík, Plzeň, 2013, RIV/68407700:21220/13:00204658

**Clamp for clamping of round miniature specimens in the testing machine for fatigue life testing**, Konopík Pavel, Hodek Josef, COMTES FHT a.s., 2014, RIV/26316919:\_\_\_\_/14:#0000544

**Clamp for clamping of miniature flat samples in testing machines**, Konopík Pavel, Hodek Josef, COMTES FHT a.s., 2014, RIV/26316919:\_\_\_\_\_/14:#0000545

#### **Functional sample**

**Multiaxial loading fixture for sheet samples**, Džugan, J., Konopík, P., Španiel, M., Prantl, VGB12028, COMTES FHT a.s., 2012 RIV/68407700:21220/12:00204653, 2012

**Calibration grid for geometric calibration of the IR and the DIC**, Džugan, J., Hodek, J. Konopík, P., Bednarz, T., Sluka, P., Ševčík, D., RIV/26316919:\_\_\_\_\_/17:N0000139!RIV18-TA0-26316919, 2017

**The calibration element for the calibration of strains and temperature changes due to a force loading**, Džugan, J., Konopík, Procházka, R., Ševčík, D., Zděblo, J.