

*1) General information*

Name: **Starke, Peter**, Prof. PD Dr.-Ing. habil.  
 Date of birth: 04.02.1977  
 Marital status: married



Address of the institute: Department of Materials Science and Materials Testing,  
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Position: Professor (W2)

*2) Academic education with degree*

1997 – 2002 Field of study: Mechanical engineering, TU Kaiserslautern  
 Supervisor of diploma thesis: Prof. Dr.-Ing. D. Eifler

*3) Scientific degrees*

PhD: Titel: "Fatigue life calculation for constant amplitude and variable amplitude loaded specimens from quenched and tempered SAE4140 steel"  
 Subject: Materials Science  
 TU Kaiserslautern  
 Year of oral examination: 2007  
 Supervisor: Prof. Dr.-Ing. D. Eifler

Habilitation: Titel: "Fatigue Life Calculation for Cyclically Loaded Materials by Using Non-Destructive Testing Methods"  
 Subject: Material technology  
 Graduation: 2020  
 Supervisor: Prof. Dr.-Ing. C. Boller

*4) Professional career from graduation*

since 2018 Professor (W2), Head of the Department of Materials Science and Materials Testing, University of Applied Sciences Kaiserslautern

2013 – 2018 Head Engineer at the Chair of Non-Destructive Testing and Quality Assurance, Saarland University  
 Academic Council (A13) since 2016  
 Head of the group "Non-Destructive Testing in Destructive Testing"

2012 - 2013 Research assistant  
 Fraunhofer IZFP Saarbrücken

2007 - 2012 Head of the group "Physical Measurement Methods and Fatigue Life Calculation" and head of the fatigue lab at the Institute of Materials Science and Engineering, TU Kaiserslautern

2002 – 2007 Research associate (PhD student) in the research group "Fatigue" at the Institute of Materials Science and Engineering, TU Kaiserslautern

5) *Other*

since 2005	Member of the German Society for Materials Science (DGM)
since 2005	Member of the German Association for Materials Research and Testing (DVM)
since 2010	Member of DIN committee fatigue testing
since 2016	Member of the working group of university lecturers in the field of NDT (DGZFP)
since 2016	Member of the German Society for Non-Destructive Testing (DGZFP)
since 2019	Member of the institute management QM <sup>3</sup> (Quality, Modeling, Machining and Materials)
2019	Galileo award (DGM, DVM, VDEh)

6) *Publications*a) *Publications in organs with scientific quality assurance and book contributions*

1. M. Klein, P. Starke, D.S. Nowak, C. Boller, F. Walther, Separation of surface, subsurface and volume fatigue damage effects in AISI 348 steel for power plant applications, *MP Materials Testing* 58,7-8 (2016) 601-607.
2. C. Boller, P. Starke, Enhanced assessment of ageing phenomena in steel structures based on materials data and non-destructive testing, *Materialwissenschaft und Werkstofftechnik* 47, No. 10 (2016) 876-887.
3. P. Starke, H. Wu, Use of non-destructive testing methods in a new one-specimen test strategy for estimating fatigue data, *Int. J. Fat.* 111 (2018) 177-185.
4. P. Starke, D. Eifler, F. Walther, Model-based correlation between electrical resistance and the dislocation structure of fatigued ICE R7 wheel steel, *MP Materials Testing* 60 (7-8) (2018) 669-676.
5. P. Starke, StressLife<sub>tc</sub> – NDT-related assessment of the fatigue life of metallic materials, *MP Materials Testing* 61, 4 (2019) 297-303.
6. R. Acosta, F. Weber, T. Eyrich, T. Hielscher, M. Magin, P. Starke, Influences through processing parameters on the lifetime of quenched and tempered SAE 4140H specimens. *MP Materials Testing* 61, 9 (2019) 842-850.
7. H. Wu, A. Engel, A. Baumchen, C. Boller, P. Starke, SteBLife – a new short-time procedure for the evaluation of fatigue data, *Int. J. Fat.* (2019) 124 (2019) 82-88.
8. Z. Teng, H. Wu, C. Boller, P. Starke, A unified fatigue life calculation based on intrinsic thermal dissipation and microplasticity evolution, *Int. J. Fat.* (2019) 1-9.
9. Z. Teng, H. Wu, C. Boller, P. Starke, Thermodynamic entropy as a marker of high-cyclefatigue damage accumulation: Example for normalized SAE 1045 steel, *Fatigue and Fracture of Engineering Materials & Structures*, (2020) 1-13.
10. H. Wu, T. Bill, Z. Teng, S. Pramanik, K.-P. Hoyer, M. Schaper, P. Starke, Characterization of the fatigue behaviour for SAE 1045 steel without and with load-free sequences based on non-destructive, X-ray diffraction and transmission electron microscopic investigations. *Material Science and Engineering: A* (2020) 1-10.

b) *Other publications*

not applicable

c) *patents*

not applicable