

Xian Ming Meng, Ph.D, Vice-Chief Engineer, Senior Engineer

China Automotive Technology & Research Center

No.68, East Xianfeng Road, Dongli District, Tianjin, China

Tel: 13652036038 E-mail: mengxianming@catarc.ac.cn

Xianming Meng, PH.D, Vice-Chief Engineer, Senior Engineer, worked in Automotive Engineering Research Institute for six years, Study on mechanical properties of vehicle materials and application development direction of new materials in body structure. Lead and participate in the design and development of 20 kinds of Car design and optimization of the mechanical properties of the body material, the project covers A0, A, B, SUV car levels, such as a variety of different models. In addition, Plan and assist the domestic steel companies to establish the material mechanics database covering all ranges of steel car body, also developed dynamic mechanical performance characterization method and CAE simulation modeling method. Finally, to assist the relevant domestic enterprises to establish the EVI pre service capabilities.

Dr. Xianming Meng has a solid theoretical foundation of material mechanics and material microstructure, and he has many years of experience in the study of the mechanical properties of automotive materials and the project experience of body structure crashworthiness design, the research results to the first author in the domestic and foreign journals published more than 30 papers.

RESEARCH PROJECT

1. “Research on key issues of coupling design for multi material lightweight vehicle” Research Project
2. “Research on the application of multi objective optimization method in lightweight design of car body structure” Research Project
3. “Study on mechanical properties of typical vehicle materials” Research Project
4. “Simulation and optimization of occupant neck protection in rear collision” Research Project
5. “Passive safety design in conceptual design stage” Research Project
6. “Research on the key technology of pure electric vehicle crash safety” Research Project
7. “Study on the mechanical properties of carbon fiber composite and its application in lightweight design of vehicle body structure” Research Project

PUBLICATIONS

1. Journal articles published

1. Meng, X. M.; Zhang, J. B.; etc. [J]. Influence of annealing treatment on cold rolling behaviour of 304SS coating by cold spraying, *Materials Research Innovations*, 2012, 16(1), 73-78.
2. Meng Xianming; Zhang Junbao; etc. [J]. Fracture Behavior of Cold Sprayed 304 Stainless Steel Coating During Cold Rolling, *Journal of Iron and Steel Research, International*, 2012, 19(11), 57-63.
3. Meng Xianming; Liang Yongli; etc. [J]. Influence of Temperature of To-e-Sprayed Gas on the Microstructure and Properties of Cold Sprayed 304 Stainless Steel Coatings, *Journal of Materials Protection*, 2011, 44(7), 1-3
4. Meng, Xian-Ming; Zhang, etc. [J]. Influence of annealing treatment on the microstructure and

mechanical performance of cold sprayed 304 stainless steel coating, *Applied Surface Science*,2011,258(2),700-704.

5. Meng, X. M.; Zhang, J. B.; etc. [J]. Numerical and experimental investigation on effect of impact velocity on particle deposition characteristics in cold spraying, *Materials Research Innovations*,2011,15(4),283-289.
6. Meng, Xianming; Zhang, Junbao; Zhao, Jie; etc. [J]. Influence of Gas Temperature on Microstructure and Properties of Cold Spray 304SS Coating, *Journal of Materials Science & Technology*,2011,27(9), 809-815.
7. Meng Xianming; Liang Yongli; etc. [J]. Influence of annealing treatment on microstructure and corrosion behaviour of cold sprayed 304 stainless steel coatings, *Transactions of Materials and Heat Treatment*,2011,32(2),124-129.
8. Meng Xianming; Liang Yongli; etc. [J]. Influence of annealing treatment on microstructure and corrosion behaviour of cold sprayed 304 stainless steel coatings, *Transactions of Materials and Heat Treatment*,2011,32(2),124-129
9. Meng, Xianming; Zhang, Junbao; etc. [J]. Influence of annealing treatment on microstructure and properties of cold sprayed stainless steel coatings, *Acta Metallurgica Sinica-English Letters*,2010,24(2),92-100.
10. Meng, Xian Ming, Zhang, Jun Bao; etc. [J].Effect of gas temperature on the particle deposition characteristics and coating microstructure by cold spray, *Materials Science Forum*,2011,675-677, 1295-1298.
11. Han, Wei; Meng, Xianming; etc. [J]. Fracture behavior of 304 stainless steel coatings by cold gas dynamic spray, *Acta Metallurgica Sinica-English Letters*,2011,24(3),249-254.
12. Han Wei; MENG Xianming; etc. [J]. Effect of vacuum heat treatment on elastic modulus of 304 stainless steel coating by cold gas spraying, *Transactions of Materials and Heat Treatment*,2011,32(8),147-152.
13. Han Wei; Meng Xianming; etc. [J]. Study of Bending Behavior of 304 Stainless Steel Coating by Cold Gas Dynamic Spraying, *Journal of Materials Engineering*,2011,4,49-53.
14. Han, W.; Meng, X. M.; etc. [J]. Effect of heat treatment on microstructure and bending behaviour of 304 stainless steel coating by cold gas dynamic spraying, *Materials Research Innovations*,2012,16(2), 109-114
15. Han Wei; Meng Xian-ming; etc. [J]. Elastic Modulus of 304 Stainless Steel Coating by Cold Gas Dynamic Spraying, *Journal of iron and Steel Research International*, 2012, 19(3), 73-78.
16. Liang, Yongli, Meng, Xianming,etc. [J] Microstructure and nano-mechanical property of cold spray Co-base refractory alloy coating, *Acta Metallurgica Sinica-English Letters*, 2011,24(3),190-194.
17. Zhu Chuanlin; Meng Xianming; etc. [J]. Effect of Vacuum Heat Treatment on Microstructure and Properties of Cold Sprayed 304 Stainless Steel Coating, *Materials for Mechanical Engineering*,2012,36(10),23-26.
18. 《Application of the method Multi-Objective Optimization on Vehicle Lightweight Design》 Published in 《Proceedings of the 15th Conference of Automotive Safety Technology》 , 2012.8, First author. Invited report
19. 《Study on dynamic deformation characteristics of B340-590DP-type steel sheets》 Published in 《Proceedings of the 16th Conference of Automotive Safety Technology》 , 2013.8, First author
20. 《Study on fracture properties of nonmetal materials based on a front bumper》 Published in

- 《Proceedings of The 18th Conference of Automotive Safety Technology》, 2015.7, Second author
21. 《Automotive Metal Material Database Development and Application in Oasys/Primer》
Published in 《Proceedings of the 18th Conference of Automotive Safety Technology》 , 2015.7,
Third author
22. 《Research on the dynamic deformation behavior of B250P1 low alloy steel》 Published in
《Proceedings of the 18th Conference of Automotive Safety Technology》 , 2015.7, Second author
23. 《Study on the Simulation Method of Automotive Spot-welds Failure Based on the Mechanical
Property of Spot-welds》 published in 《Proceedings of the 19th Conference of Automotive Safety
Technology》 2016.7, Second author
24. 《Dynamic mechanical properties of two typical kind of nonmetallic materials for vehicle》
Published in 《Proceedings of the 19th Conference of Automotive Safety Technology》 , 2016.7,
Second author
25. 《Study on the middle-low strain rate mechanical properties of PP+EPDM-TD10 for
automobile》Published in《Proceedings of the 19th Conference of Automotive Safety Technology》,
2016.7, Second author
26. 《The research of constitutive modeling for vehicle aluminum magnesium alloy》 Published in
《Proceedings of the 19th Conference of Automotive Safety Technology》, 2016.7., Second author
27. 《Dynamic Tensile Properties and Constitutive Modeling of 6061 Aluminum Alloy》 Published in
《Materials for Mechanical Engineering》 , 2017.3, vol.41 NO.3, Corresponding author
28. 《Dynamic deformation behavior of B340-590DP steel sheet》 Published in 《Journal of Iron and
Steel Research》 2015, 27(6):51-55, First author
29. 《Research on the dynamic deformation behavior and constitutive model of B250P1 low alloy
steel》 Published in 《Materials for Mechanical Engineering》 , Corresponding author
30. 《Multi-objective optimization of automobile bumper based on match of materials》 Published
in 《Journal of Dalian University of Technology》 2014, Vol54, NO.4, Fourth author
31. 《Study on the Dynamic Mechanical Properties of PP+EPDM-TD10 for Automobile based on
DIC》 Published in 《China Plastics Industry》 , 2016, Corresponding author
32. 《Dynamic/Static mechanical properties of two typical kinds of nonmetallic materials for
vehicle》 Published in 《Journal of Experimental Mechanics》 2016, Third author
33. 《EVI Ability Construction for Materials Enterprises Oriented Body Structure Crashworthiness
Design and Development》 invited report in 《The 1st International Conference on Automobile
Steel》 2016, First author

Member

SAE International (USA) member

SAE China member

Conference

The 15th Conference of Automotive Safety Technology-Invited Presentation

The 3rd International Conference on High Manganese Steels- Invited Presentation

The 1st International Conference on Automobile Steel-Invited Presentation

The 13th Conference of material testing forum in Germany- Invited Presentation

EDUCATION

Ph.D., Materials Science and Technology

Dalian University of Technology, Dalian, Liaoning, China

Master of Materials Science and Technology

Dalian University of Technology, Dalian, Liaoning, China

Bachelor of Materials Science and Technology

Dalian University of Technology, Dalian, Liaoning, China