



1983 4

yanghuinan@usst.edu.cn

2008.05~2012.01 -
2006.11~2008.04 -
2003.10~2006.11 -
2001.09~2005.07

2025.01~
2021.06~2024.12
2019.07~
2019.03~2020.02
2015.07~2019.06
2012.12~2015.06
2012.08~2012.12
2012.01~2012.07

BASF Coatings GmbH Coatings Young Professionals

2024.01~2027.12		“
	(52376161)”	
2017.01~2020.12		“
		(51676130)”
2014.01~2016.12		“
	(51306123)”	
2015.01~2016.07		“TDLAS
		(20133120120008)”
2015.03~2015.12		“TDLAS
		”
2024.01~2025.12		“ ” “
		”
2020.10~2023.09		
2020.07~2023.06		
	(20ZR1438900)	
2018.08~2022.07		“ *****
	(2017-V-0016-0069)”	
2014.01~2018.12		“
	(51327803)”	
2019.03~2022.03		“
		SO ₃ (U1810129)”
2023.06~2025.06		“
		”
2023.01~2023.03		“
		”
2024.10~2024.11		“
	——	”
2020.08~2021.08		“
		”

- (1) Yuan Wei, Ru-Jin Huang, Chao Luo, Lu Yang, Wenjuan Cao, Jie Guo, . Measurement report: Oxidation potential of water-soluble aerosol components in the south and north of Beijing. *Atmospheric Chemistry and Physics*, 2024, 24(23): 13219-13230.
- (2) Xiang Ding, Cheng Huang, Dandan Huang, Yong Hou, Qingyao Hu, Shengrong Lou, Meng Wang, Min Zhou, Jun Chen, , Rujin Huang, Qingyan Fu, Hongli Wang. Unraveling reactive nitrogen emissions in heavy-duty diesel vehicles across evolving standards and cheating tactics. *Environmental Science & Technology*, 2024, 58(52), 23180-23189.
- (3) Wei Huang, Hao Sun, Chang Zhao, Kun Wang, Jun Yang, Yujian Fang, . Investigation into ethanol film thicknesses in the evaporation, injection, and flow processes by an online measurement system based on absorption spectroscopy. *Measurement*, 2024, 238: 115285.
- (4) , Yunfei Hou, Wenfei Zhu, Chunjiang Zhao, Chen Yang, Liping Qiao, Shengrong Lou, Jun Chen, Cheng Huang. Closure method development for extinction coefficients and chemical compositions of aerosol by mobile measurement in Shanghai. *Atmospheric Pollution Research*, 2024, 15(6): 102111.
- (5) Silong Li, Yi Zheng, Yue-De Yang, Huazhong Yang, Changpeng Han, Peng Du, Xiaolei Wang, . Diagnosis and classification of intestinal diseases with urine by surface-enhanced Raman spectroscopy. *Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy*. 2024, 312: 124081.
- (6) Chang Zhao, Hao Sun, Jingyi Wang, . Light-induced enhanced phase change process of plasmonic nanofluids: The reduction of the latent heat of vaporization. *Applied Thermal Engineering*, 2024, 240: 122140.
- (7) Yidong Fang, Donghua Lu, Weihong Yang, , Yuqi Huang. Saturated flow boiling heat transfer of R1233zd(E) in parallel mini-channels: Experimental study and flow-pattern-based prediction. *International Journal of Heat and Mass Transfer*, 2023, 216: 124608.
- (8) Hao Sun, Wei Huang, Chunjiang Zhao, Zhiyuan Liu, Yujian Fang, Jian Jin, Ling Li, . Experimental and numerical study on the falling film flow process on the outer wall of dome cylinder. *International Journal of Heat and Mass Transfer*, 2023, 216: 124542.
- (9) Chang Zhao, Hao Sun, Yonggang Zheng, Silong Li, . Promotion of Nanobubble Formation around Light-Induced Plasmonic Nanoparticles: A

- Molecular Dynamics and Continuum Modeling Comparative Study. *The Journal of Physical Chemistry C*, 2023, 127(34): 16818-16827.
- (10) Yidong Fang, Zhao Zhang, Dan Xu, Yuchen Wang, , Yuqi Huang. Experimental Investigation on Flow Pattern and Bubble Behavior during Subcooled Flow Boiling of R1233zd(E) in Parallel Channels. *Journal of Thermal Science*, 2023, 32, 2374-2385.
- (11) Jiajia Wu, Yan Chen, , Leyi Gu, Zhaohui Ni, Shan Mou, Jianxiao Shen, Xiajing Che. Sodium glucose co-transporter 2 (SGLT2) inhibition via dapagliflozin improves diabetic kidney disease (DKD) over time associated with increasing effect on the gut microbiota in db/db mice. *Frontiers in Endocrinology*, 2023, 14, 1026040.
- (12) Xiao Chen, Hao Sun, Wei Huang, Jian Jin, Mingxu Su, . The Development of a Novel Headspace O₂ Concentration Measurement Sensor for Vials. *Sensors*, 2023, 23(5): 2438.
- (13) Zhiyuan Liu, Hao Sun, Wei Huang, Kun Wang, Mingxu Su, . Development and application of an optimal three-wavelength combination for liquid film measurement with absorption spectroscopy. *Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy*, 2023, 291: 122391.
- (14) Wei Huang, Hao Sun, Zhiyuan Liu, Kun Wang, Mingxu Su, Huinan Yang. Investigation into injection and falling film flow processes of diesel. In: *Measurement*, 2023, 218: 113120.
- (15) Yue Zhu, Weimin Xu, Zhiyuan Liu, Bingyan Li, Yaling Wu, Zhebin Hua, Yaosheng Wang, Xiaolei Wang, Peng Du, . Surface-enhanced Raman spectroscopy analysis reveals biochemical difference in urine of patients with perianal fistula. *Asian Journal of Surgery*, 2024, 47(1): 140-146.
- (16) Xiang Ming Ding, Cheng Huang, Wenyang Liu, MA Dong-xiang, Shengrong Lou, Qing X. Li, Jun Chen, , Chaoyang Xue, Yafang Cheng, Hang Su. Direct Observation of HONO Emissions from Real-World Residential Natural Gas Heating in China. *Environmental Science & Technology*, 2023, 57(12): 4751-4762.
- (17) Yang Tian, Xuechun Wu, Guqing Guo, Guowang Xu, Ting Gong, Yantao Tian, Xiaoying Sun, Xuanbing Qiu, , Christa Fittschen, Chuanliang Li. A miniaturized multipass cell for measurement of O₂ concentration in vials based on TDLAS. *Optics and Lasers in Engineering*, 2023, 163: 107454.
- (18) Bingyan Li, Hui Ding, Zijie Wang, Zhiyuan Liu, Xiaoshu Cai, . Research on the difference between patients with coronary heart disease and

- healthy controls by surface enhanced Raman spectroscopy. *Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy*, 2022, 272: 120997.
- (19) Yaling Wu, Zijie Wang, Mengmeng Xing, Bingyan Li, Zhiyuan Liu, Peng Du, Xiaolei Wang. The Specific Changes of Urine Raman Spectra Can Serve as Novel Diagnostic Tools for Disease Characteristics in Patients with Crohn's Disease. *Journal of Inflammation Research*, 2022, 15: 897-910.
- (20) Zixuan Du, Yan Zhou, Si Luo, Yusheng Zhang, Jie Shao, Zuguang Guan, Daru Chen. Highly birefringent hollow-core anti-resonant terahertz fiber with a thin strut microstructure. *Optics Express*, 2022, 30(3): 3783-3792.
- (21) Shuaishuai Kong, Zijie Wang, Xiaoyan Xu, Hao Sun, Zhiyuan Liu; Yidong Fang, Mingxu Su. Film thickness measurements in the R1233zd film evaporation and flow processes on a quartz plate. *International Journal of Multiphase Flow*, 2022, 153: 104108.
- (22) Chao Tian, Yang Cai, Mingxu Su. Investigation on mixed particle classification based on imaging processing with convolutional neural network. *Powder Technology*, 2021, 391: 267-274.
- (23) Chao Luo, Bingyan Li, Yaling Wu, Zijie Wang, Weimin Xu, Yue Zhu, Peng Du, Xiaolei Wang. Development of Classification Model for the Discrimination of Crohn's Disease and Healthy Controls Using Surface-enhanced Raman Spectroscopy. 2021 Photonics & Electromagnetics Research Symposium (PIERS), Hangzhou, China, 2021, pp. 805-809.
- (24) Ru-Jin Huang, Wei Yuan, Lu Yang, Wenjuan Cao, Jie Guo, Ningning Zhang, Chongshu Zhu, Yunfei Wu, Renjian Zhang. Concentration, optical characteristics, and emission factors of brown carbon emitted by on-road vehicles. *Science of The Total Environment*, 2022, 810: 151307.
- (25) Bingyan Li, Yaling Wu, Zijie Wang, Mengmeng Xing, Weimin Xu, Yue Zhu, Peng Du, Xiaolei Wang. Non-invasive diagnosis of Crohn's disease based on SERS combined with PCA-SVM. *Analytical Methods*, 2021, 13(44): 5264-5273.
- (26) Qingrou Yang, Lei Wu, Chenjun Shi, Xu Wu, Xiaohong Chen, Weida Wu, Zijie Wang, Linggao Zeng, Yan Peng. Qualitative and Quantitative Analysis of Caffeine in Medicines by Terahertz Spectroscopy Using Machine Learning Method. *IEEE Access*, 2021, 9: 140008-140021.
- (27) Wenyong Qiao, Tao Jin, Peng Li, Mengmeng Xing, Jun Chen, Mingxu Su. Determining Nitrophenol Isomers Using Raman Spectroscopy. *Spectroscopy*, 2021, 36(10): 30-36.

- (28) Weiwei Wu, Shuaishuai Kong, Xiaoyan Xu, Tao Jin, Chuanliang Li, Jingyi Wang, Mingxu Su, . Simultaneous measurement of liquid film thickness and temperature on metal surface. *Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy*, 2021, 257: 119804.
- (29) Xu-hui Lian, Zhi-hai Jia, Cheng-xiao Xu, . Directional motion of

- (38) Nan Jia, Jianfei Gu, , Mingxu Su, Synchronous acquisition and analysis of ultrasonic spectral information for the characterization of particle size distribution. *Journal of Sensors*, 2019, 5: 1-12.
- (39) , Yufeng Guo, Yong Jiang, Jingjing Chen, Mingxu Su, Zhihai Jia. Laser-based investigation into injection, formation and flow processes of ethanol films on metal surface. *Results in Physics*, 2019, 12: 1742-1746.
- (40) Jianfei Gu, Fengxian Fan, Yunsi Li, , Mingxu Su, Xiaoshu Cai. Modeling and prediction of ultrasonic attenuations in liquid-solid dispersions containing mixed particles with Monte Carlo method. *Particuology*, 2019, 43, 84-91.
- (41) , Jingjing Chen, Xujian Luo, Chang Liu, Dawei Qi, Xuchao Xin, Mingxu Su. Leakage detection of closed vials based on two-line water-vapor TDLAS. *Measurement*, 2019, 135: 413-417.
- (42) , Chengfang Luo, Chengxing Shen, Hui Ding, Bo Wu, Xiaoshu Cai. Influence of drugs on the prospective diagnostic method for coronary heart disease with urine. *Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy*, 2019, 217: 176-181.
- (43) , Wei Wu, Mingxu Su, Jun Chen, Xiaoshu Cai. Measurement of liquid water film thickness on opaque surface with diode laser absorption spectroscopy. *Flow Measurement and Instrumentation*, 2018, 60: 110-114.
- (44) , Chen Zhao, Rong Li, Chengxing Shen, Xiaoshu Cai, Li Sun, Chengfang Luo, Yuechao Yin. Noninvasive and prospective diagnosis of coronary heart disease with urine using surface-enhanced Raman spectroscopy. *Analyst*, 2018, 143: 2235-2242.
- (45) Yihua Zhou, Jun Chen, , Tan Li, Mingxu Su. Influence of spheroidal particle shape on particle size characterization by multi-wavelength light extinction method. *Results in Physics*, 2018, 10: 22-27.
- (46) Liming Luo, Zhi-hai Jia, , Zhitao Zhang, Meng-yao Chen. Evaporation characteristics of droplets on a gradient microhole-patterned surface. *Journal of Materials Science*, 2017, 53: 1447-1454.
- (47) Xuyan Liu, Yanlin Han, Jiahuan Zeng, , Kai Zhou, Deng Pan. Hydrothermal synthesis of nano-SnO₂@SiO₂ composites for lithium-ion battery anodes. *Journal of Materials Science: Materials in Electronics*, 2018, 29: 5710-5717.
- (48) Xuyan Liu, Min Yang, Xinjie Zhu, , Kai Zhou, Deng Pan. Polypyrrole@ silica composites as high performance electrode materials for

- Lithium-ion batteries. *Journal of Materials Science: Materials in Electronics*, 2018, 29: 6098-6104.
- (49) Xuyan Liu, Jiahuan Zeng, , Kai Zhoua, Deng Pan. V2O5-Based nanomaterials: synthesis and their applications. *RSC Advances*, 2018, 8: 4014-4031.
- (50) Mingzhi Li, Jun Chen, Mingxu Su, , Arun Ramachandran, Ravi Varma. An LP-DOAS instrument with a laser driven light source for open-path measurement of atmospheric NO₂ in Shanghai. *2017 Progress In Electromagnetics Research Symposium-Spring (PIERS)*, St. Petersburg, Russia, 2017, pp. 57-62.
- (51) , Jianwei Shi, Mingxu Su, Wei Wu, Xiaoshu Cai. Simultaneous measurement of film thickness, temperature, and mass fraction of urea-water-solutions by multi-wavelength laser absorption spectroscopy. *Review of Scientific Instruments*, 2017, 88(5): 053102.
- (52) Jianfei Gu, , Fei Fan, Mingxu Su. A transmission and reflection coupled ultrasonic process tomography based on cylindrical miniaturized transducers using PVDF films. *Journal of Instrumentation*, 2017, 12: 12026.
- (53) Chenchuan Tan, Zhihai Jia, , Zhitao Zhang. Dynamic behavior of a vibrated droplet on a low-temperature micropillared surface. *Applied Surface Science*, 2017, 394: 358-363.
- (54) Yanfeng Zhang, Jun Chen, , Mingxu Su. Characterization of soot based on variable laser-induced spectroscopy. *2016 Progress in Electromagnetic Research Symposium (PIERS)*, Shanghai, 2016, 4162-4165.
- (55) , X.-L Guo, Mingxu Su, X.-S Cai. Measurement of the evaporating liquid film of a urea-water solution using diode laser absorption spectroscopy. *Lasers in Engineering*, 2016, 35: 351-358.
- (56) , Mingxu Su, Xue Wang, Jianfei Gu, Xiaoshu Cai. Particle sizing with improved genetic algorithm by ultrasound attenuation spectroscopy. *Powder Technology*, 2016, 304: 20-26.
- (57) Wu Zhou, Na Jin, Minhua Jia, , Xiaoshu Cai, Xiaoshu Cai. Three-dimensional positioning method for moving particles based on defocused imaging using single-lens dual-camera system. *Chinese Optics Letters*, 2016, 14: 31201-31205.
- (58) , B. Yang, Xiaoshu Cai, Hecht, C., Dreier, T., Schulz, Christof. Three-dimensional (3-D) temperature measurement in a low pressure flame reactor using multiplexed tunable diode laser absorption spectroscopy (TDLAS). *Optics Letters*, 2016, 41: 31201-31205.

- (59) , Xiaolong Guo, Wu Zhou, Benting Chen, Jian Hu, Mingxu Su, Xiaoshu Cai. Investigation on liquid film of urea-water solutions with diode laser absorption spectroscopy. *Experiments in Fluids*, 2015, 56: 73.
- (60) Xiaoshu Cai, . Preface. *Powder Technology*.2015.
- (61) Pengfei Yin, Jun Chen, , Lili Liu, Xiaoshu Cai. Multi-path light extinction approach for high efficiency filtered oil particle measurement. *AIP Conference Proceedings*, 2014, 1592(1): 261-267.
- (62) , Jun Chen, Xiaoshu Cai, Daniel Greszik, Thomas Dreier, Christof Schulz. Liquid film thickness measurement by two-line TDLAS. *AIP Conference Proceedings*, 2014, 1592(1): 232-235.
- (63) Yanping Hou, Jun Chen, , Xiaoshu Cai. Simulated characterization of soot in the flame based on laser induced incandescence. *2016 Progress in Electromagnetic Research Symposium (PIERS) 2016*, pg. 4162.
- (64) , Xiaolong Guo, Mingxu Su, Xiaoshu Cai. Novel method for simultaneous measurement of film thickness and mass fraction of urea-water solution. *Chinese Optics Letters*, 2014, 12: 123102.
- (65) Jiaxun Liu, Xiaoshu Cai, Zenghao Zhu, . Application of spectral technology in flame measurement. *Frontiers in Energy*, 2013, 8: 138-143.
- (66) , Daniel Greszik, Irenäus Wlokas, Thomas Dreier, Christof Schulz. Tunable diode laser absorption sensor for the simultaneous measurement of water film thickness, liquid- and vapor-phase temperature. *Applied Physics B-Lasers and Optics*, 2011, 104: 21-27.
- (67) Daniel Greszik, , Thomas Dreier, Christof Schulz. Measurement of water film thickness by laser-induced fluorescence and Raman imaging. *Applied Physics B-Lasers and Optics*, 102: 123-132.
- (68) Daniel Greszik, , Thomas Dreier, Christof Schulz. Laser-based diagnostics for the measurement of liquid water film thickness. *Applied optics*, 2010, 50: 60.
- (69) , Daniel Greszik, Thomas Dreier, Christof Schulz. Simultaneous measurement of liquid water film thickness and vapor temperature using near-infrared tunable diode laser spectroscopy. *Applied Physics B-Lasers and Optics*, 2010, 99: 385-390.

(1)

2022.

(1) 2023

(2) 2023 ()

(3) 2020

(4) 2024 “ ”

(5) 2021

(6) 2023“ ”

(7) 2014

(8) 2016

(9) 2023 (1)

(10)2023 (2)

(11)2023 (3)

(12)2020 “ ” “ ”

(13)2019 ()

(14)2022

(15)2023

(16)2023

(17)2019

(18)2018

(19)2022 “ +”

(20)2023 “ +”

(21) 2023 “ ”

(22) 2021 ()

(23) 2019“ ”

(24) 2023

(25) 2021

(26) 2020 “ . ”

(27) 2019 “ ”