

ICS 27.010
CCS F 04



**NATIONAL STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

GB/T 45483-2025

**Test method for liquid mixed fuel micro-explosion
characteristics based on moving image tracking technology**

基于运动图像跟踪技术的液体混合燃料微爆特性测试方法

Issued on: April 25, 2025

Implemented on: November 1, 2025

**Issued by: State Administration for Market Regulation;
Standardization Administration of the PRC**

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Foreword

This document is in accordance with the provisions of GB/T 1.1-2020 "Guidelines for standardization work Part 1: Structure and drafting rules for standardization documents" Drafting.

Please note that some of the contents of this document may involve patents. The issuing organization of this document does not assume the responsibility for identifying patents.

This document was proposed and coordinated by the National Technical Committee for Combustion Energy Saving and Purification Standardization (SAC/TC441).

This document was drafted by: Anhui Communications Vocational and Technical College, Shanghai Xinhua Guya Environmental Group Co., Ltd., University of Science and Technology of China, Hefei Aerospace Electro-Physics Technology Co., Ltd., Zhejiang University, Anhui Civil Aviation Airport Group Co., Ltd., Anhui General Aviation Holding Group Co., Ltd., China Southern Airlines Engineering Technology Branch, Anhui Ruida Feixiang Aviation Technology Co., Ltd., Anhui Yuchen General Aviation Co., Ltd., Anhui

Fengniao General Aviation Co., Ltd., Civil Aviation University of China, Chengdu Aviation Vocational and Technical College, Beijing Institute of Technology, Anhui University of Technology, Anhui University of Science and Technology, Shanghai Jiao Tong University, Anhui Quality and Standardization Research Institute, Dalian University of Technology, Hefei General Machinery Research Institute Co., Ltd.

Anhui Special Equipment Testing Institute, Anhui Product Quality Supervision and Inspection Institute, Wuhu Vocational and Technical College, Zhongyuan University of Technology, Hefei Institute of Technology University of Science and Technology, Liupanshui Normal University, Anhui National Defense Science and Technology Vocational College, Kunming University of Science and Technology, Anhui Fengxing New Materials Technology Co., Ltd., Hefei Low Carbon Research Institute.

The main drafters of this document are: Meng Kesheng, Sun Xiaolei, Qu Zhaozhou, Wang Gaofeng, Si Xiaoliang, He Liqun, Lin Qizhao, Zhang Haitao, Qin Shuangying, Tang Feng, Lu Dongmei, Wang Chengjun, Xia Bin, Gao Lin, Wu Baoning, Jiang Yi, Qu Jinsong, Liu Zhiqiang, Cui Yanyu, Zhang Tiechun, Huang Yanxiao, Wang Changhao, He Xu, Li Lan, Miao Wenbin, Ni Zhanshi, Tian Junjian, Jiang Chunlong, Geng Hao, Zhou Yuegui, Zhang Wenqiu, Su Qingyun, Li Fengyu, Fu Wei, Zhou Kun, Zhang Fengang, Zhang Quankui, Cheng Wenqiang, Peng Ding, Lou Jie, Li Xiaomin, Zhou Taotao, Zhou Yu, Shen Maolin, Zhang Xiaolei, Zhang Wei, Zhang Hong, Yang Zhenyu, Huang Zhiyong, Wang Kang, Hou Xianwei, Tao Di, Jiang Jiwen, Shen Shiquan, Ling Xinwen, Wu Qian, Ge Dazhong.

Liquid mixed fuel based on motion image tracking technology Micro-explosion characteristics test method

1 Scope

This document defines the terms and definitions of liquid mixed fuel micro-explosion characteristics test, and gives the composition and principle of the test system and the test process.

and requirements, images and data processing workflow.

This document is applicable to the testing of micro-explosion characteristics of liquid mixed fuels in power plants.

2 Normative references

GB/T 37650

3 Terms and definitions

The terms and definitions defined in GB/T 37650 and the following apply to this document.

3.1

A device that converts a volume of liquid fuel mixture into individual droplets.

3.2

Apparatus for hanging droplets.

3.3 micro-explosion

When the internal pressure of a mixed droplet is greater than the sum of its surface tension and the ambient pressure, the droplet breaks into secondary droplets.

3.4 Micro-explosion intensity

The intensity of droplet destruction when a microburst occurs.

3.5

Characterize the characteristic parameters of the droplet micro-explosion process.

3.6 Image tracking imagetracking

A technology that uses imaging equipment to track and photograph moving targets.

3.7 Viewport

The heating device is used as an observation channel for the imaging equipment to capture the changes in the droplets.