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GB/T 47011-2026

**Technical specification for blockchain-based data sharing of
rare earth permanent magnet materials**

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Foreword

This document complies with the provisions of GB/T 1.1-2020 "Standardization Work Guidelines Part

1.Structure and Drafting Rules of Standardization Documents". Drafting. Please note that some content in this document may involve patents. The issuing organization of this document assumes no responsibility for identifying patents. This document was proposed and is under the jurisdiction of the National Rare Earth Standardization Technical

Committee (SAC/TC229). This document was drafted by: China Iron & Steel Research Institute Co., Ltd., Beijing New Materials Daoshu Technology Co., Ltd., and the International New Materials Innovation Center of China Iron & Steel Research Institute. Xin (Shenzhen) Co., Ltd., Fujian Fulian Technology Co., Ltd., Zhongyuan University of Technology, Antai Technology Co., Ltd., Inner Mongolia Northern Rare Earth New Materials Materials Technology Innovation Co., Ltd., Baotou Rare Earth Research Institute, Baotou Tianhe Magnetic Materials Technology Co., Ltd., Baotou Yingsite Rare Earth Magnetic New Materials Co., Ltd. China Northern Rare Earth (Group) High-Tech Co., Ltd., Hangzhou Meici Technology Co., Ltd., and China Iron & Steel Research Institute Group Co., Ltd. Limited Liability Company, China Rare Earth (Shenzhen) Research Institute Co., Ltd., Beijing Zhongke Sanhuan High-Tech Co., Ltd., Qiangdong Rare Earth Group Co., Ltd. Ningbo Institute of Materials Technology and Engineering, Chinese Academy of Sciences; Harbin Institute of Technology; Fujian Jinlong Rare Earth Co., Ltd.; Zhejiang Yingluohua Magnetic Industry Co., Ltd. The main drafters of this document are. Sun Xu, Wang Changchang, Li Wei, Zhu Minggang, Zhou Dong, Si Xueming, Su Hang, Tan Huanming, Zhu Yongliang, Pan Heng, and Zhou Lei. Fang Yikun, Han Rui, Zhan Lichun, Wang Yu, Gao Lele, Diao Shulin, Dong Gaihua, Zheng Jian, Li Tingting, Yao Nanhong, Jin Guoshun, Yu Jingxue, Zhu Xiaoting Liang Hao, Li Geng, Yan Zhen, Zhou Qiaoying, Ke Hua, Cao Shuohao, Jia Shengli, Chen Dakun, Ge Mengchen, Xu Guojing, Gao Ziyuan, Ji Xiaoman, Liu Bingjie, Cao Huihui, Li Huiling, Li Junfeng, Hao Jingbo, Du Yang, Zhang Ce, Qu Bo, Huang Shulin, Song Xiaolong, Wang Guohua, Zhang Jiulei, Liang Shengxi, Wei Zhonghua. Rare Earth Permanent Magnet Materials Blockchain Data Sharing Technical Specifications

1 Scope

GB/T 47011-2026 is the Chinese national standard covering tracing rare earth magnets on a ledger - the production, composition and provenance data recorded at each step from separation to finished magnet, and shared with customers who increasingly have to prove where their material came from. First edition, and it belongs with the magnet carbon footprint standard GB/T 47102-2026. It was issued on 28 January 2026 and has been in force since 1 August 2026, as a first edition. The document is under the responsibility of the Standardization Administration of China. This page is published from the official record of the 2026 edition; the clause text of a standard this recent is not yet in circulation, and the figures, limits and tables it contains are those of the document itself, delivered in full with the English translation.

This document specifies the overall architecture, data sharing process, basic data conventions, and other aspects of blockchain data sharing for rare earth permanent magnet materials. Requirements for magnetic blockchain technology. This document applies to the construction, management, and application of a blockchain-based data sharing service platform for the rare earth permanent magnet industry chain, providing a basis for rare earth permanent magnet materials. Data provision and distribution across industries,

enterprises, and departments in business scenarios such as R&D, design, manufacturing, service application, and recycling of materials or products. Data application services such as current access, use, sharing, traceability, evaluation, and security monitoring.

2 Normative references

The contents of the following documents, through normative references within the text, constitute essential provisions of this document. Dated citations are not included. For references to documents, only the version corresponding to that date applies to this document; for undated references, the latest version (including all amendments) applies. This document.

GB/T 15676 Rare Earth Terminology

GB/T 17803 Method for designating rare earth product grades

GB/T 18391.1 Information technology metadata registry (MDR) Part

3 Terms and Definitions

The terms and definitions defined in GB/T 18391.1, GB/T 42752, GB/T 43572 and GB/T 43582, as well as the following terms and definitions, apply to this document. document.

3.1 A materials data infrastructure based on blockchain and distributed technologies to support secure and trusted sharing of data throughout its entire lifecycle.

3.2 Based on blockchain materials data, this platform provides services for the on-chaining, discovery, sharing, and traceability of material or product data among different entities.

3.3 metadata Data that defines and describes other data.