

NEOMAX[®] の省重希土類技術

NEOMAX[®] with Heavy Rare-Earth Reduciton Technology

独自技術"M拡散[™]"の適用で資源リスク軽減と高性能化を両立

Achieve high performance and resource risk reduction by applying Proterial's original "M-diffusion[™]" technology.



概要

重希土類使用量を大幅に削減可能な技術”M拡散[™]”により
高性能化と資源リスク軽減の両立を実現

Establish "M-diffusion[™]" technology, which enables a significant reduction in the use of heavy rare-earth, achieving both higher magnetic properties and further resource risk reduction.

特長

独自技術”M拡散[™]”を適用することで
以下の特長を実現

Following features achieved by applying Proterial's original "M-diffusion[™]" technology.

- 高い残留磁束密度と保磁力を両立
High remanence (B_r) and coercivity (H_{cJ})
- 重希土類量を大幅に削減*
Significant reduction of heavy rare-earth*
- 磁石内の保磁力差を低減*
Reduction of coercivity distribution in an individual magnet*

*当社従来拡散材比

*Compared to our magnet applied conventional diffusion process.

用途

モーター

Motors

アクチュエーター

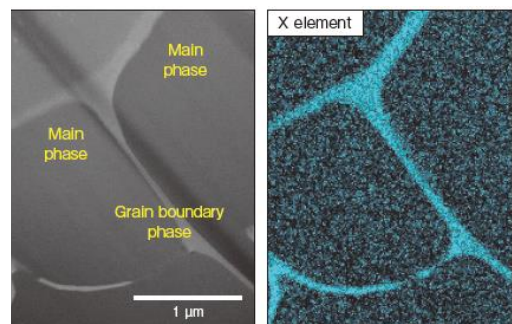
Actuators

発電機

Generators

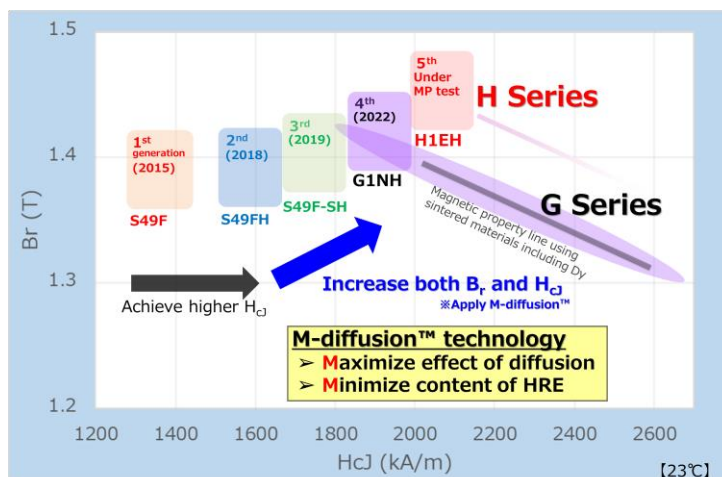
磁石断面組織と元素マップ(例)

Example of microstructure and X-element distribution



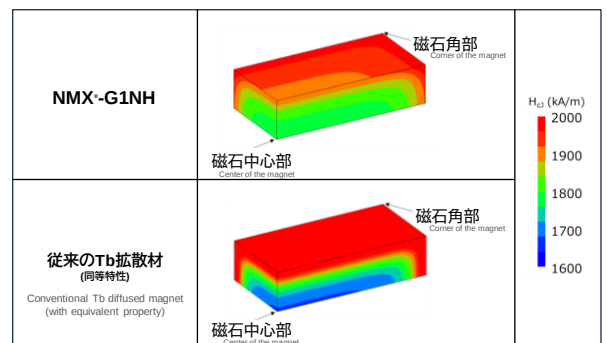
M拡散[™]材の磁石特性

Magnetic properties of magnets with "M-diffusion[™]" technology



保磁力分布(計算例)

Simulation example of coercivity distribution within the magnets



※計算例であり本特性を保証するものではありません。
Examples of calculations and does not guarantee these properties.

磁石形状: 5 (磁化容易方向) × 10 × 20 (mm)

Dimension of the magnet: 5 (easy magnetization direction) × 10 × 20 (mm)

実測データを用いて磁石の1/8の領域を計算

Calculation about one-eighth region of the magnets using actual magnetic properties.

