

## 초전도 자기분리에 의한 냉연공정 폐수처리

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### **Treatment of rolling cooling waste water by superconductor HGMS method.**

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**Abstract :** This study introduced waste water treatment method applied superconductor HGMS(High Gradient Magnetic Separation). HGMS method treat high efficient method for various waste water. we have surveyed superconducting magnetic separation technology and reviewed the status of related industries using applied superconductivity. We fabricated the prototypes of magnetic matrix filter consisting of stainless steel mesh, which is a core component in the magnetic separation system. In our basic preliminary experiment using HGMS, it was made clear that the fine para-magnetic particles in the rolling colling wasted water obtained from rolling process of POSCO can be separated with high efficiency.

**Key Words :** High Gradient Magnetic Separation; magnetic separation system; filter mesh BaTiO<sub>3</sub> ceramics, PTCR effect, MnO<sub>2</sub>, Nb<sub>2</sub>O<sub>3</sub>