phorus concentration in the hot metal after treatment has been successfully held to a low level with the proposed control algorithm in comparison with the conventional method.

Independent component analysis (ICA) and statistical treatment reflecting the hot metal condition and operating conditions are incorporated in the proposed control algorithm. It is considered that the influence of measurement errors and unknown variations, which had been problems in the converter blowing process, could be suppressed and satisfactory control results could be obtained effectively by using these features of the proposed control algorithm.

7. Conclusion

The paper introduced a new control technology for dephosphorization i

information, in this case, the transition of the Fe_tO concentration in slag during dephosphorization. Improvement of the level of dephosphorization control performance makes it possible to improve the cleanliness of molten steel and supply higher quality products. Application of this technology realizes a shortening of blowing time and reductions in submaterial consumption and slag formation, thereby contributing to improvement of customer satisfaction by shortening delivery lead time and preservation of the global environment.

The details of this technology were published in the scientific journal, "Journal of Process Control." [5]

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