

KAWASAKI STEEL TECHNICAL REPORT

No.46 (JUNE 2002)

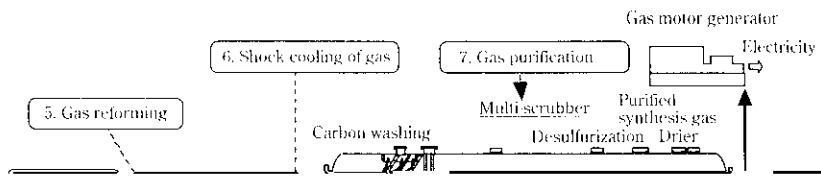
"Environment-friendly Steel Products" aiendn

Kawasaki Steel Thermoselect Waste Gasification and Melting Process*



Synopsis:

The Thermoselect process, a completely new solid waste treatment process which achieves pollution-free recycling of municipal wastes by gasification melting technology, was developed by the Swiss company Ther



generation using fuel cells, in particular, generates little NO_x and the effect on the environment can be minimized.

(4) Space Savings and Cost Minimization

stances react with oxygen blown at the bottom of the reactor, leading to the maximum temperature of about 2000°C at the center. The extremely high temperature allow metals and ash component in the

removed by alkali washing. Heavy-metal compo-

equipment, reductions in the concentrations of dioxins at

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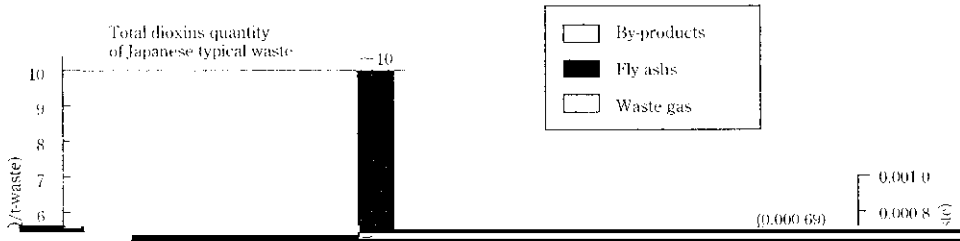
Table 1 Characteristics of combustible waste

| | | Minimum | Maximum | Average |
|---------------------------|----------------------------|---------|---------|---------|
| 3 components | Moisture content (%) | 37.8 | 55.5 | 47.7 |
| | Ash content (%) | 4.2 | 9.2 | 6.7 |
| | Volatile solid content (%) | 38.4 | 57.2 | 45.6 |
| Measured lower heat value | | 6 400 | 12 500 | 8 500 |

Table 2 Characteristics of synthesis gas (at the Chiba Plant)

from Municipal Waste¹¹⁾ set by the Ministry of Health and Welfare. The slag is used in asphalt concrete, roadbed materials, etc. as primary products and in street

Total dioxins quantity
of Japanese typical waste



ulations under Clause 1, Article 8 of the Law concerning
Special Measures for the Promotion of Utilization of

4) F. Miyoshi: *Shinseisaku Bessatsu*, 1(1998)9, 14-17

5) F. Miyoshi: *J. of Resources & Environment*, 34(1998)14.