

**KAWASAKI STEEL TECHNICAL REPORT**

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## Image Processing Technology for Material Evaluation

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### Synopsis :

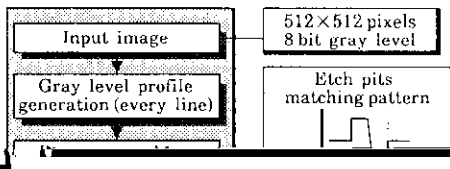
Application of image processing technology to material evaluation is useful in determining the shape features of a material. A summary of image processing techniques applied to material evaluation and the examples of application of these techniques are introduced. In association with our practical application to material evaluation, the following three findings have been obtained; (1) By applying a pattern

# Image Processing Technology for Material Evaluation\*

**Synopsis:**

*Application of image processing technology to material*





tions in the gray level of the image. Texture analysis is the process by which the characteristic features of the texture are quantified and the texture is categorized.

One example of the practical application of texture analysis is in the measurement of fracture surface ratio

Input image

512×512 pixels  
8 bit gray level

100  
51(%)





Input stereograph

Tilt angle : 8°

Table 1. Hardware specification of "Dr. Image"

Item	Specification
Processor	Intel Pentium 4
Memory	1 GB
Hard Disk	40 GB
Monitor	15" CRT
Mouse	Optical
Keyboard	Standard
Operating System	Windows XP
Software	Image processing software
Network	LAN
Printer	Color Inkjet
Scanner	Flatbed
Webcam	1.3 MP
Speaker	2.0
Power Supply	300W
Case	Mid Tower
OS	Windows XP
Software	Image processing software
Network	LAN
Printer	Color Inkjet
Scanner	Flatbed
Webcam	1.3 MP
Speaker	2.0
Power Supply	300W
Case	Mid Tower

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