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Energy Dispersive Full-Automatic Texture Analyzer

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Synopsis :
Energy dispersive full-automatic texture anal yzer has newly been developed using Mo white X-ray diffraction. Pole figures of (110), (200) and (211) of ÂFe can be analyzed from respective integral pe ak intensities measured at the same time with the Ge detector system set up at 14° from incident

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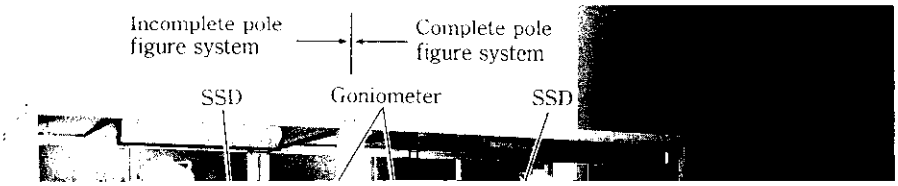
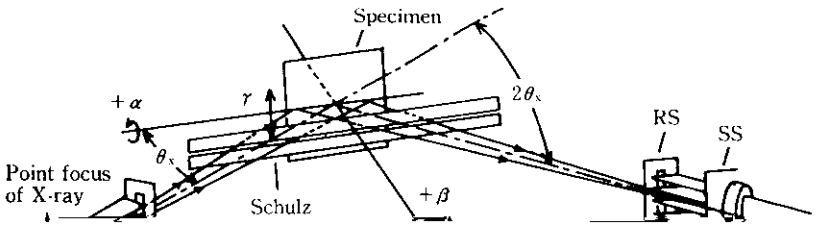
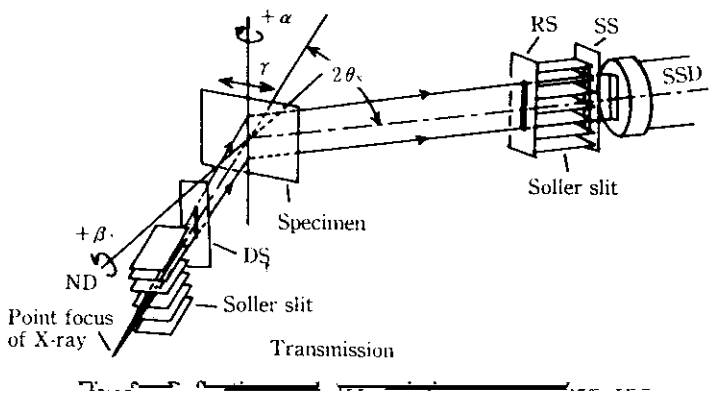
$$2d_{hkl} \sin \theta_{hkl} = \lambda_0 \cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots (1)$$

emitted as in excitation and escapes from the diode, and therefore escape peaks appear on the diffraction


Incomplete pole figure system
Complete pole figure system
SSD
Goniometer
SSD


Specimen
+α
γ
2θx
RS
SS
θx
Point focus
of X-ray
Schulz
+β


+α
RS
SS
γ
2θx
SSD
Soller slit
Specimen
+β
DS
ND
Soller slit
Point focus
of X-ray
Transmission

[illegible] stored for each step of the α rotation [illegible] computer

5 Comparison of Measurement Time

A comparison of the measurement times of the two

6 Conclusions

(1) A fully automatic energy dispersive texture analyzer