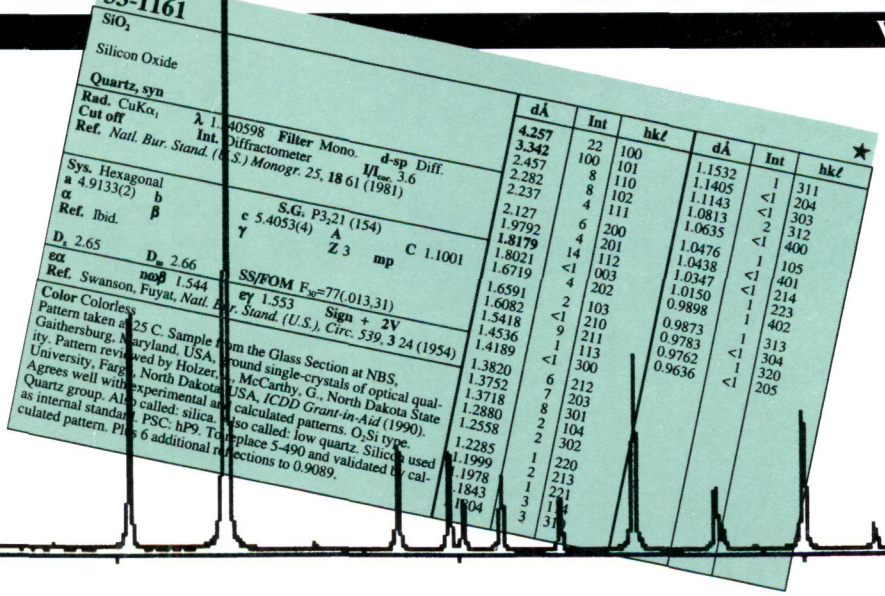
Powder Diffraction

An international journal of materials characterization

Volume 15 Number 1 March 2000


33-1161
SiO_2
Silicon Oxide
Quartz, syn
Rad. CuKα1 λ 1.540598 Filter Mono. d-sp Diff.
Cut off Int. Diffractometer $I/I_{cor.}$ 3.6
Ref. Natl. Bur. Stand. (U.S.) Monogr. 25, 18 61 (1981)
Sys. Hexagonal S.G. P3221 (154)
a 4.9133(2) b c 5.4053(4) A C 1.1001
α β γ Z 3 mp
Ref. Ibid.
D_x 2.65 D_m 2.66 SS/FOM F_{30}=77(.013,31)
εα nωβ 1.544 εγ 1.553 Sign + 2V
Ref. Swanson, Fuyat, Natl. Bur. Stand. (U.S.), Circ. 539, 3 24 (1954)
Color Colorless
Pattern taken at 25 C. Sample from the Glass Section at NBS, Gaithersburg, Maryland, USA, ground single-crystals of optical quality. Pattern reviewed by Holzer, G., McCarthy, G., North Dakota State University, Fargo, North Dakota, USA, ICDD Grant-in-Aid (1990). Agrees well with experimental and calculated patterns. O_2Si type. Quartz group. Also called: silica, low quartz. Silicon used as internal standard. PSC: hP9. To replace 5-490 and validated by calculated pattern. Plus 6 additional reflections to 0.9089.

dÅ	Int	hkℓ
4.257	22	100
3.342	100	101
2.457	8	110
2.282	8	102
2.237	4	111
2.127		
1.9792	6	200
1.8179	4	201
1.8021	14	112
1.6719	<1	003
	4	202
1.6591		
1.6082	2	103
1.5418	<1	210
1.4536	9	211
1.4189	1	113
	<1	300
1.3820		
1.3752	6	212
1.3718	7	203
1.2880	8	301
1.2558	2	104
	2	302
1.2285		
1.1999	1	220
1.1978	2	213
1.1843	1	221
1.1804	3	114
		310

dÅ	Int	hkℓ
1.1532	1	311
1.1405	<1	204
1.1143	<1	303
1.0813	2	312
1.0635	<1	400
1.0476	1	105
1.0438	<1	401
1.0347	<1	214
1.0150	1	223
0.9898	1	402
0.9873		
0.9783	1	313
0.9762	<1	304
0.9636	1	320
	<1	205

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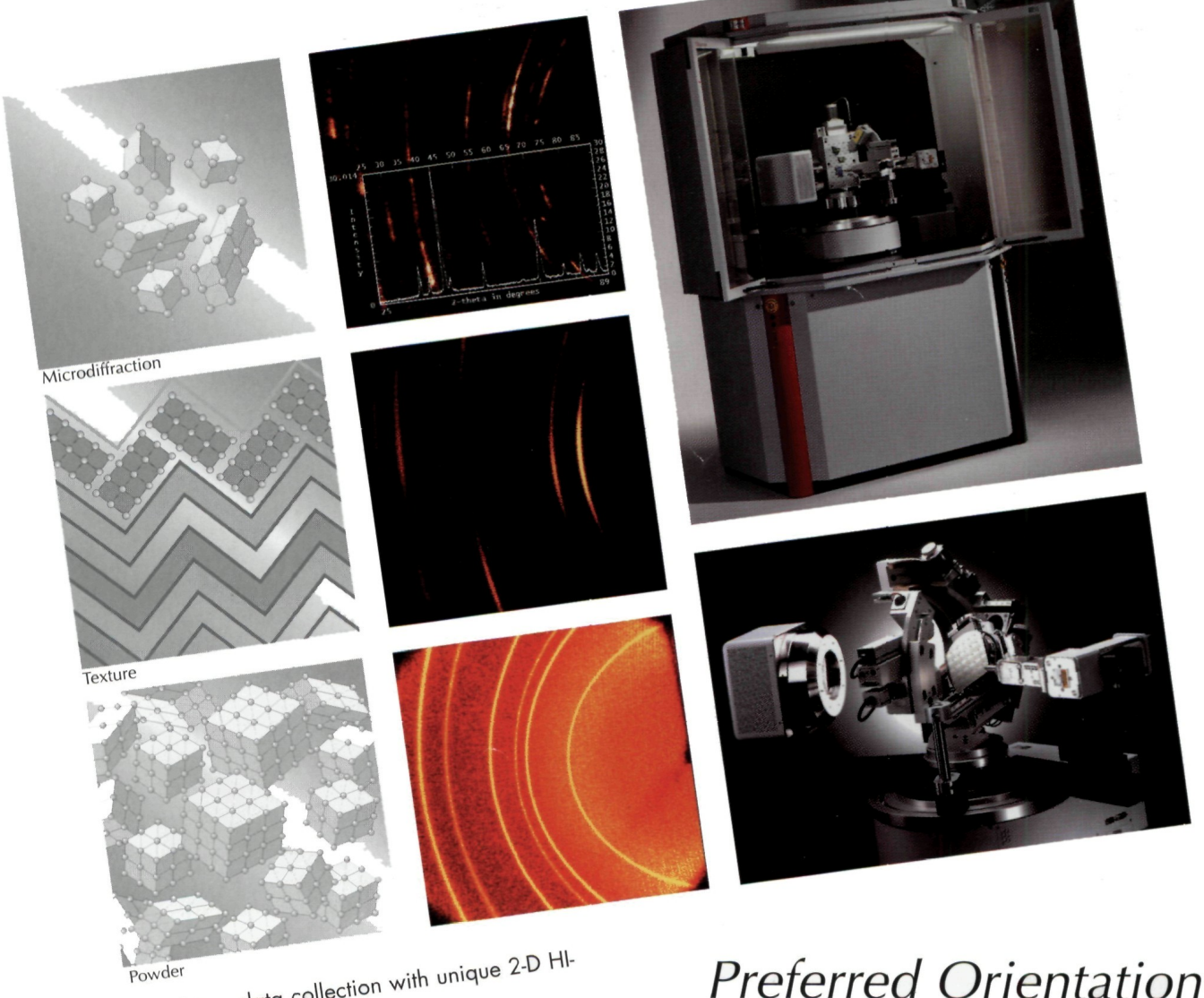

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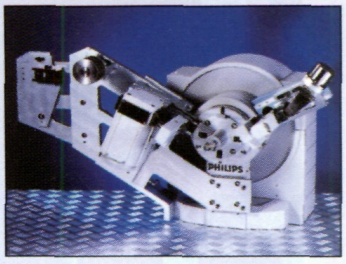

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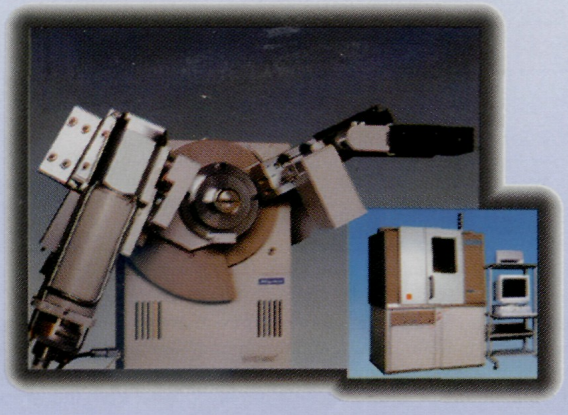

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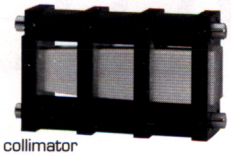

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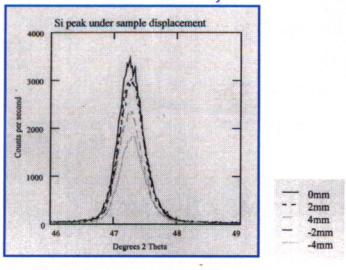

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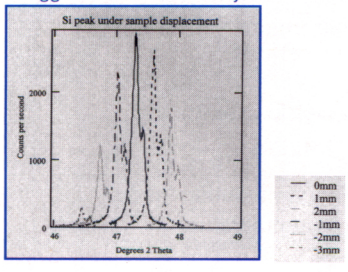

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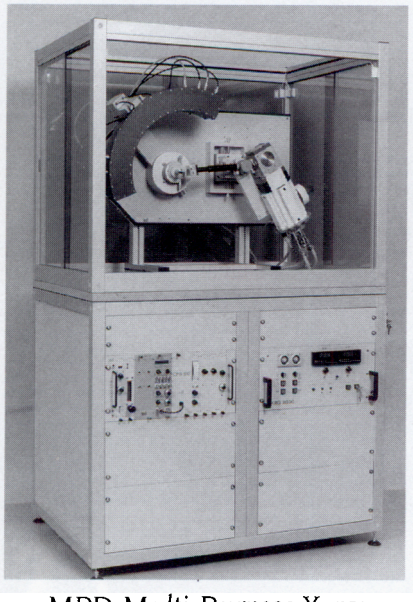

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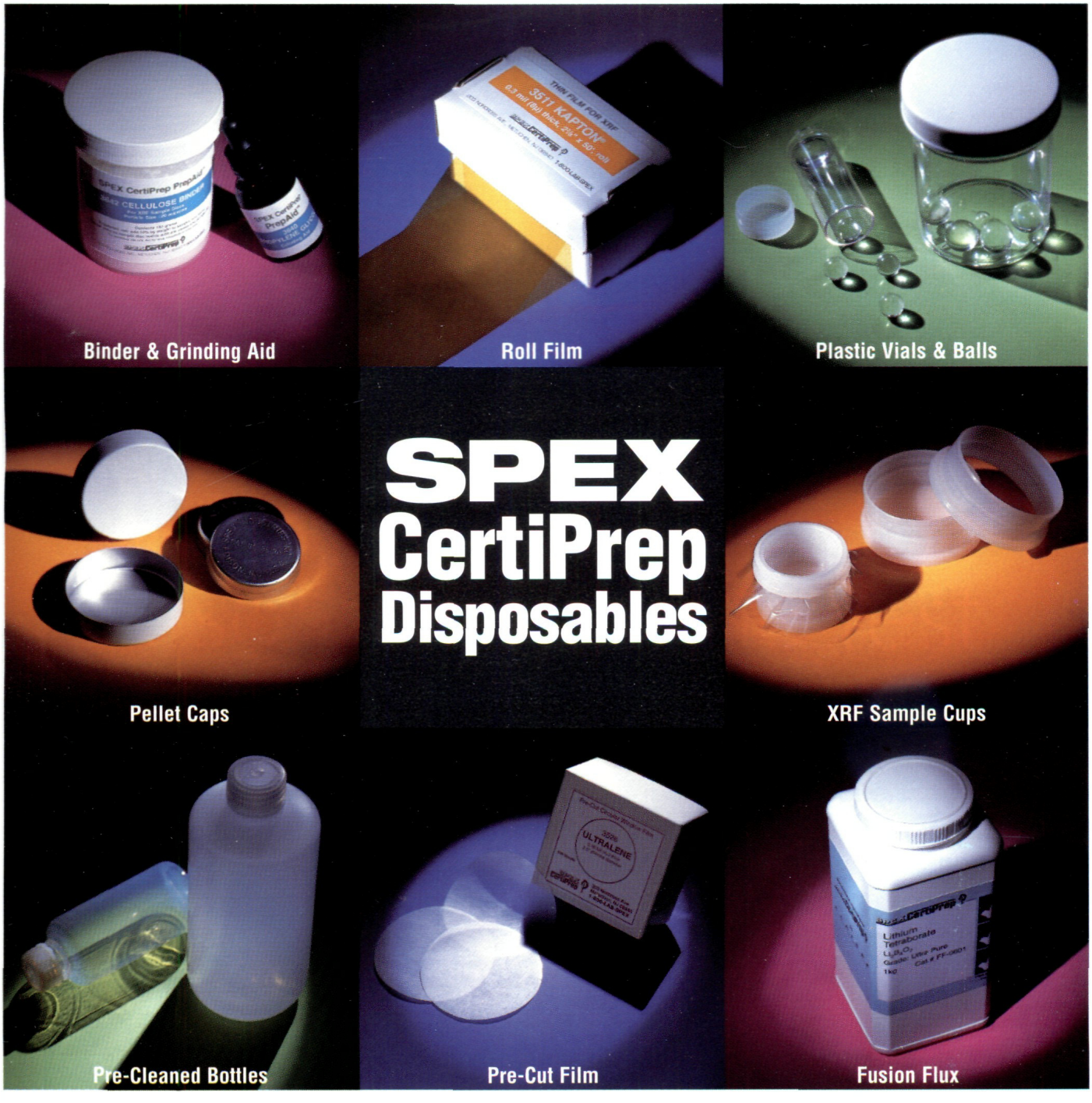

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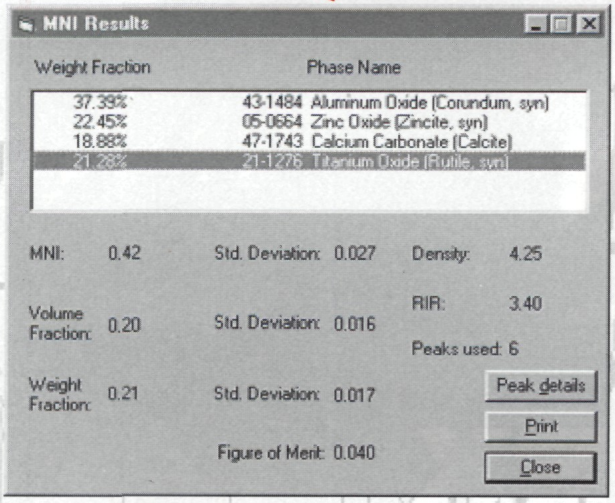

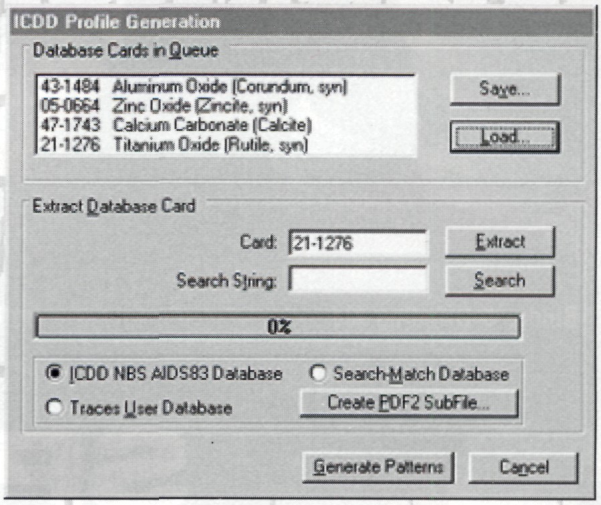

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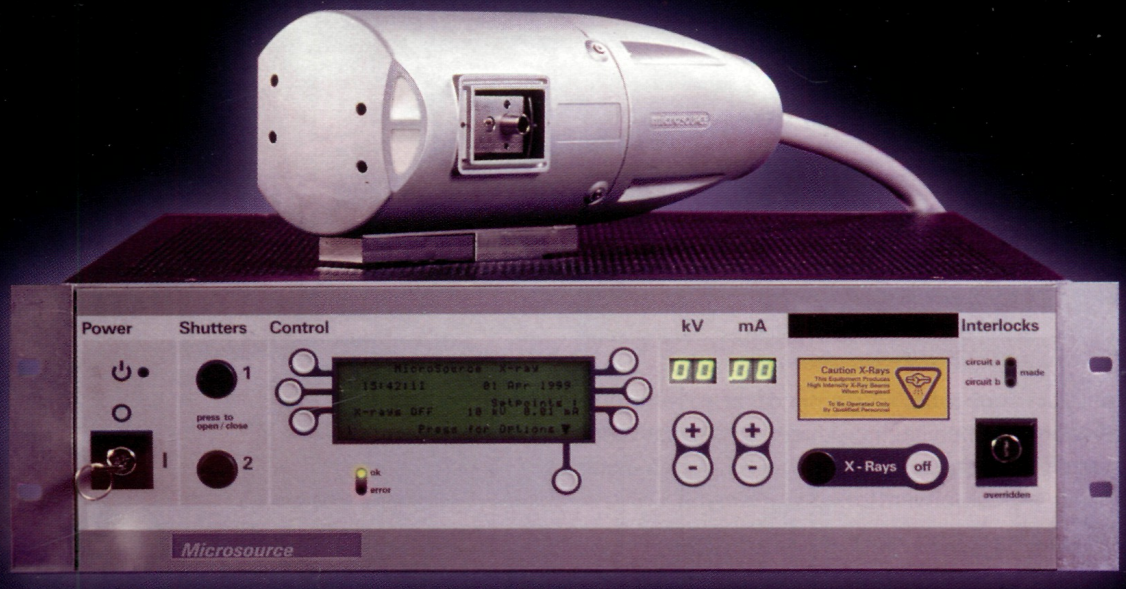

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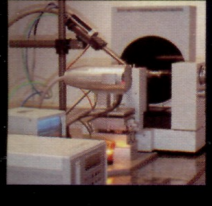
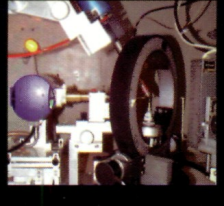
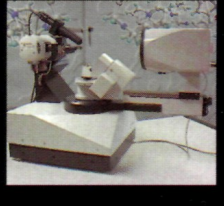
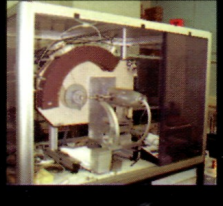

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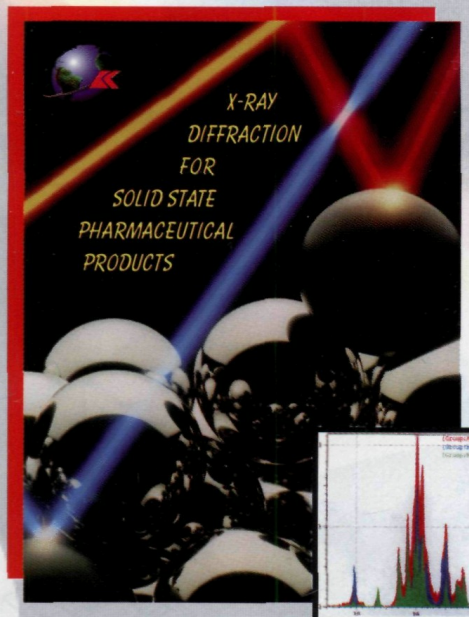

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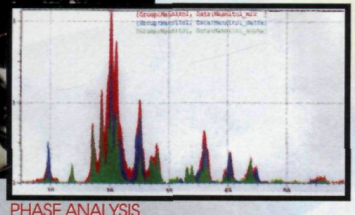

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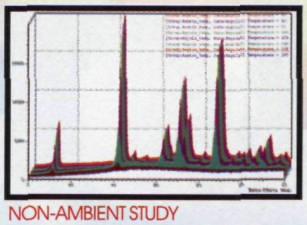
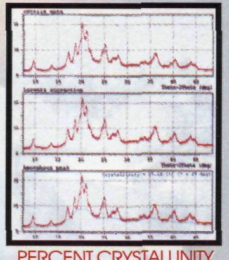
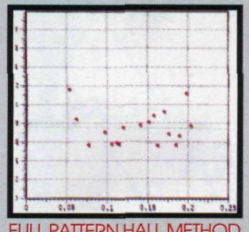
65/45 MIX OF ALPHA & DELTA
POLYMORPHS OF MANNITOL



NON-AMBIENT STUDY
ASPIRIN OVER A TEMPERATURE
RANGE OF 40°C - 180°C STEPS



PERCENT CRYSTALLINITY
CALCULATED BY TOTAL
PATTERN FITTING



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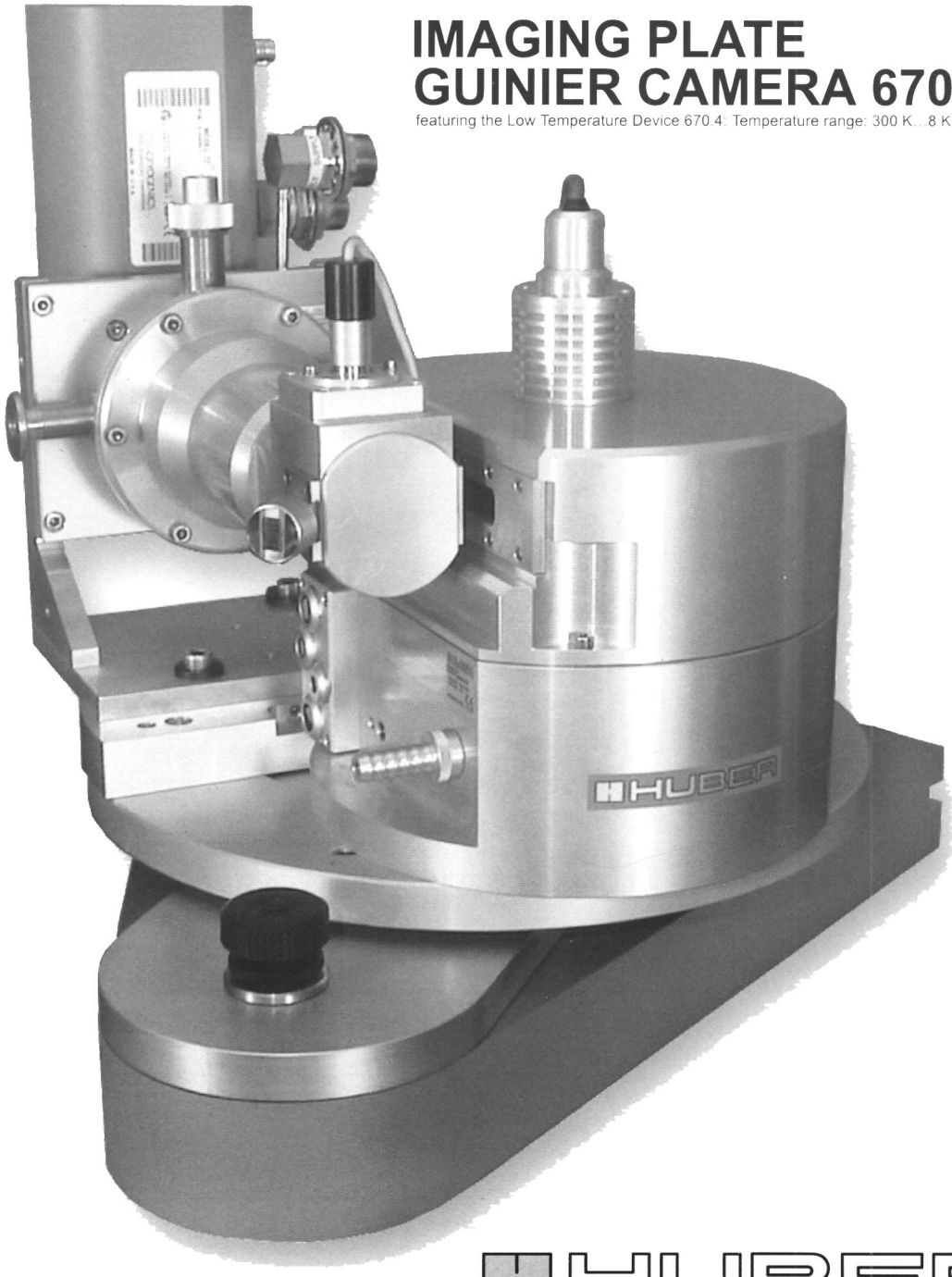

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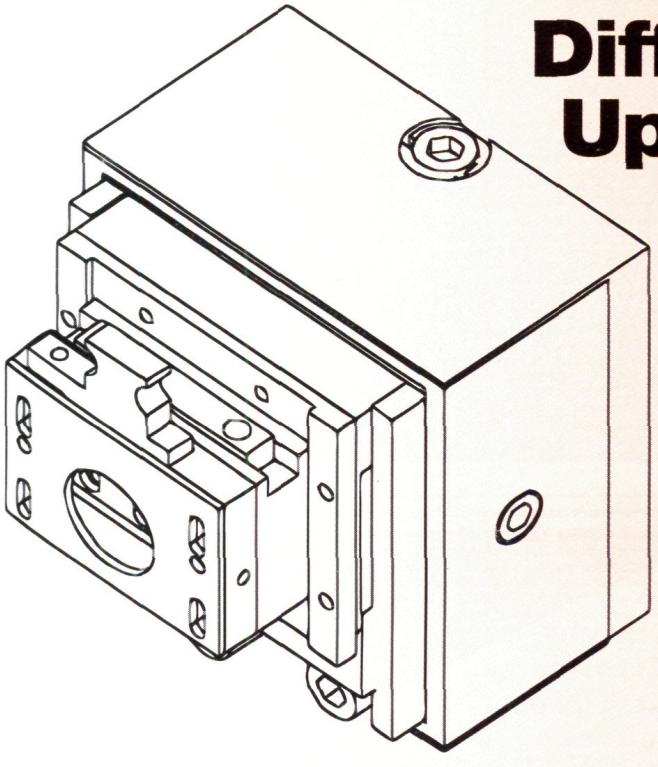

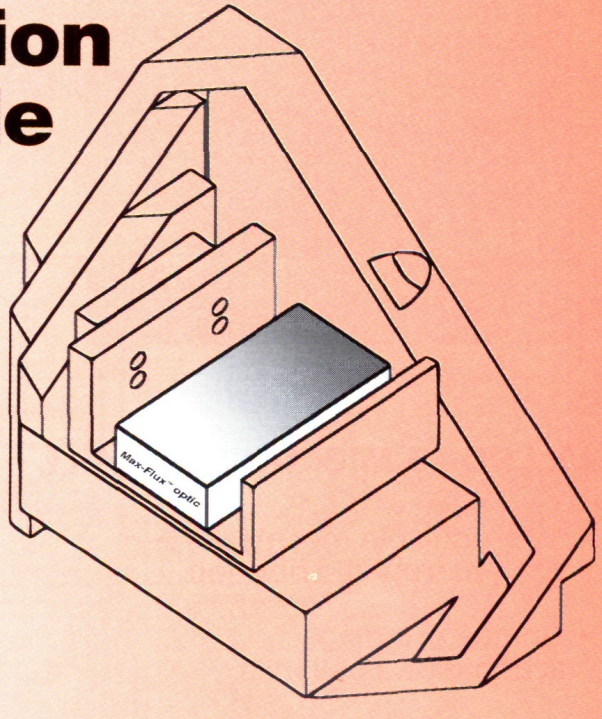

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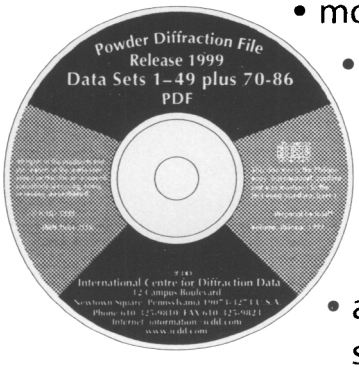

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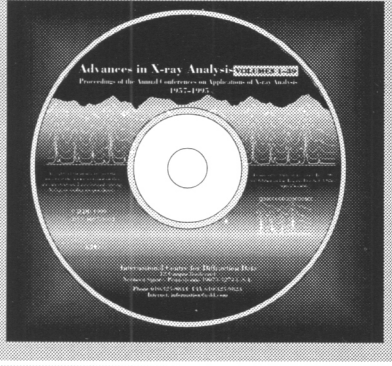

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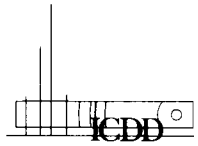

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