



Powder Diffraction

An international journal of materials characterization

Volume 11 Number 3 September 1996

33-1161
SiO₂
Silicon Oxide
Quartz, syn

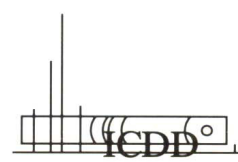
Rad. CuKα₁ λ 1.540598 Filter Mono. d-sp Diff.
Cut off Int. Diffractometer I/L₀ 3.6
Ref. Natl. Bur. Stand. (U.S.) Monogr. 25, 18 61 (1981)

Sys. Hexagonal
a 4.9133(2) b
α β
Ref. Ibid.

D₂ 2.65 D₀ 2.66
noβ 1.544
Ref. Swanson, Fuyat, Natl. Bur. Stand. (U.S.) Monogr. 25, 18 61 (1981)

Color Colorless
Pattern taken at 25 C. Sample from the Glass Section at NBS.
Gaithersburg, Maryland, USA. Ground single-crystals of optical qual-
ity. Pattern reviewed by Holzer, McCarthy, G., North Dakota State
University, Fargo, North Dakota, USA. ICDD Grant-in-Aid (1990).
Agrees well with experimental and calculated patterns. O₂Si type.
Quartz group. Also called: silica. Also called: low quartz. Silica used
as internal standard. PSC: hP9. To replace 5-490 and validated by cal-
culated pattern. Plus 6 additional reflections to 0.9089.

dÅ	Int	hkℓ	dÅ	Int	hkℓ
4.257	22	100	1.1532	1	311
3.342	100	101	1.1405	<1	204
2.457	8	110	1.1143	<1	303
2.282	8	102	1.0813	2	312
2.237	4	111	1.0635	<1	400
2.127	6	200	1.0476	1	105
1.9792	4	201	1.0438	<1	401
1.8179	14	112	1.0347	<1	214
1.8021	<1	003	1.0150	1	223
1.6719	4	202	0.9898	1	402
1.6591	2	103	0.9873	1	313
1.6082	<1	210	0.9783	<1	304
1.5418	9	211	0.9762	1	320
1.4536	1	113	0.9636	<1	205
1.4189	<1	300			
1.3820	6	212			
1.3752	7	203			
1.3718	7	301			
1.2880	8	301			
1.2558	2	104			
1.2285	2	302			
1.1999	1	220			
1.1978	2	213			
1.1843	1	221			
1.1804	3	114			
	3	311			

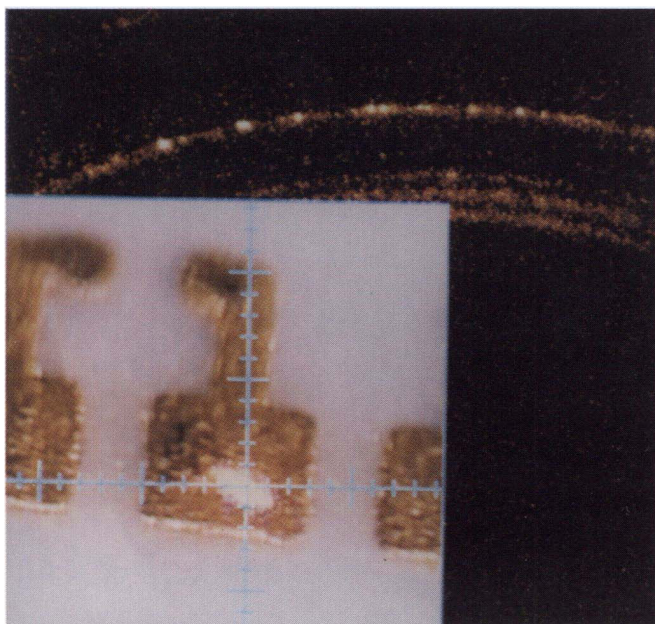
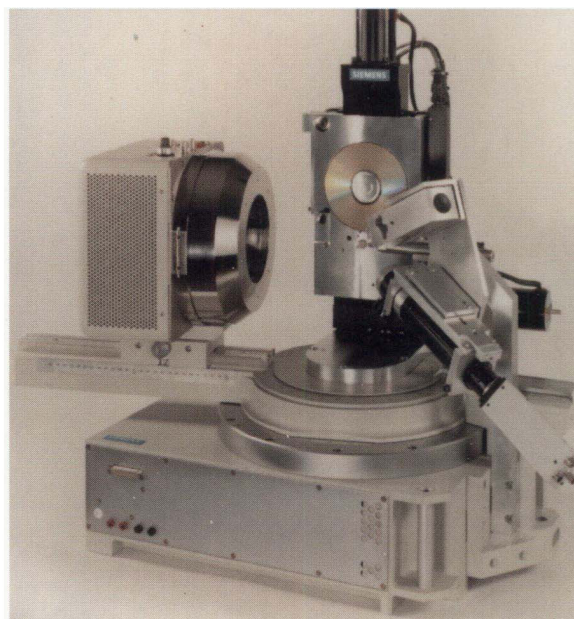


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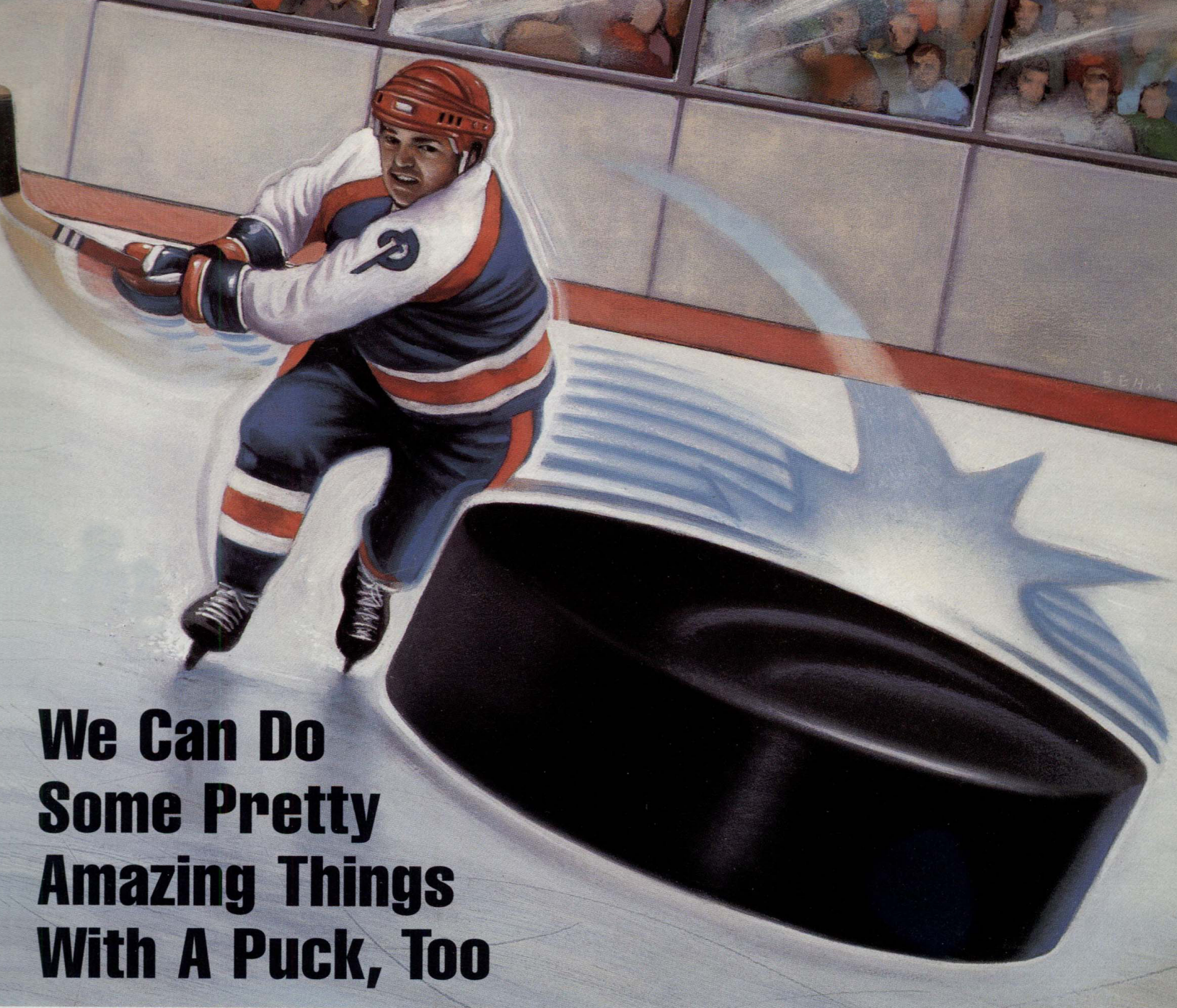
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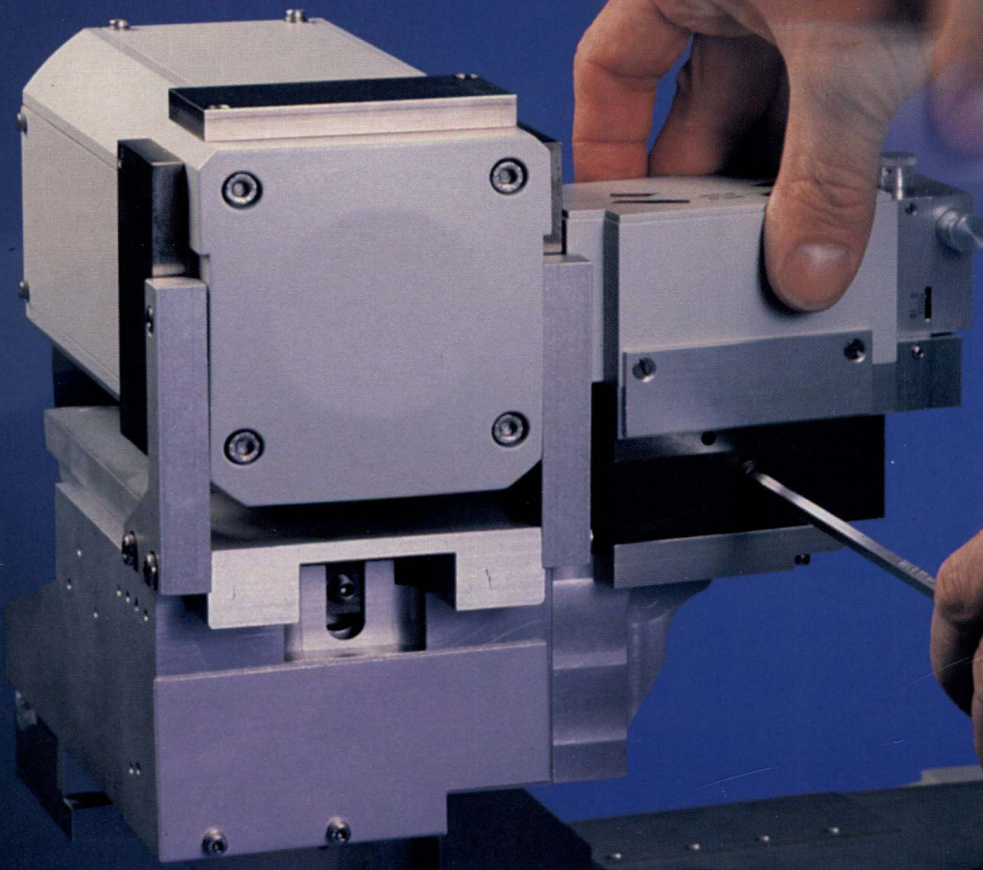
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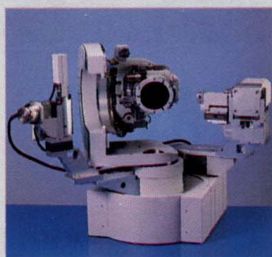
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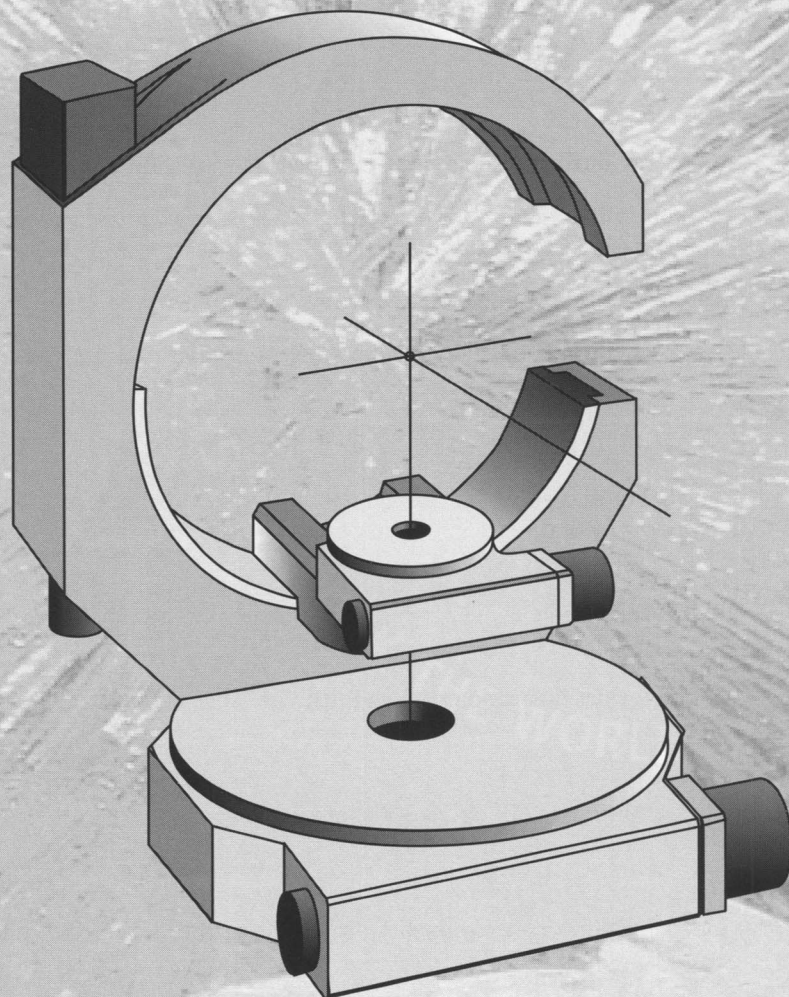
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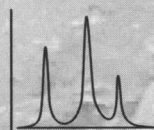
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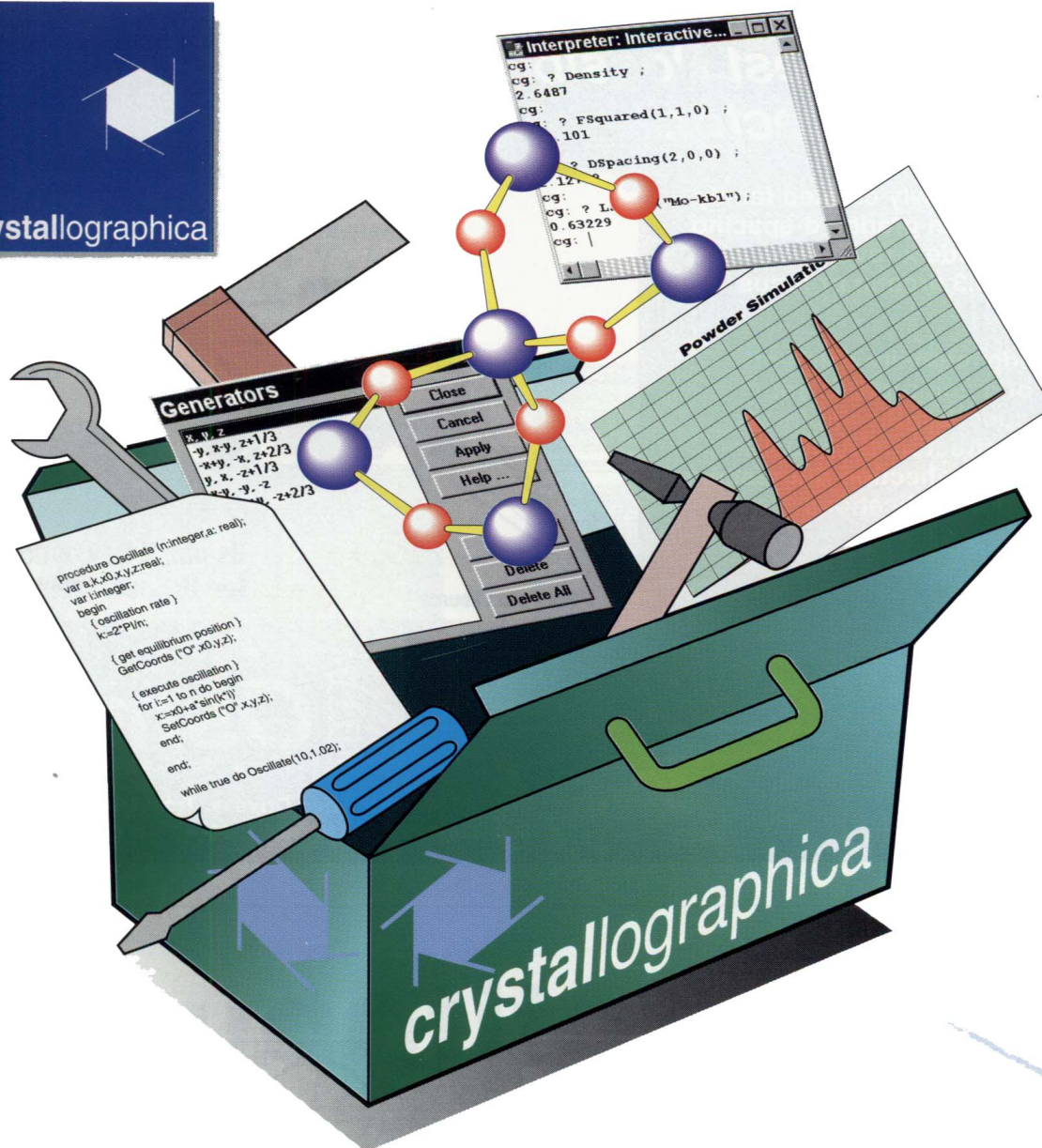
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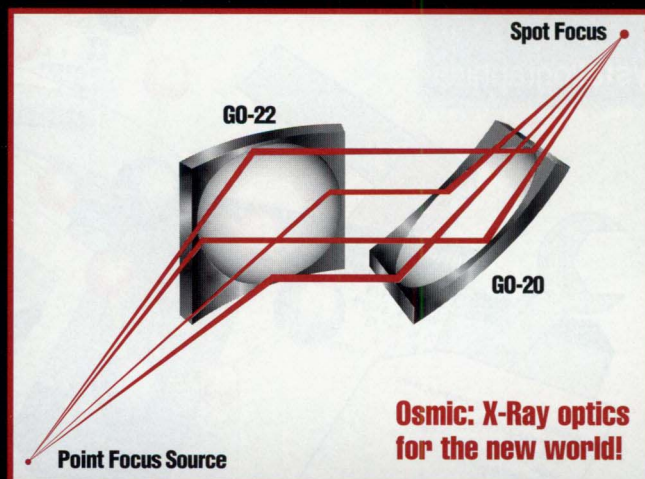
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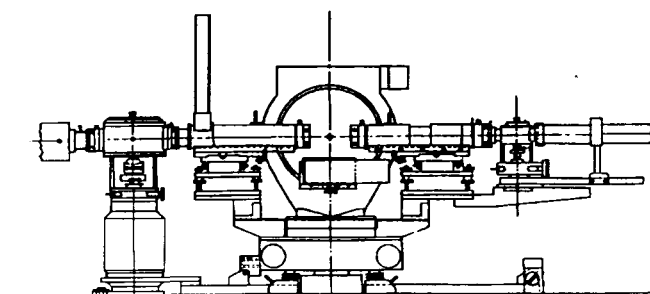


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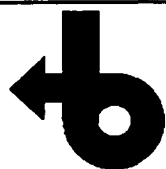
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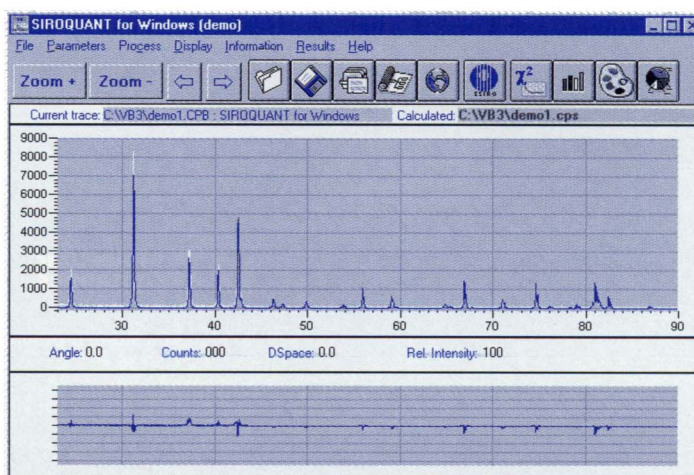
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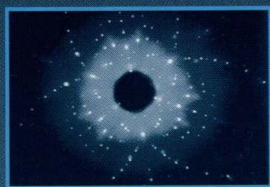
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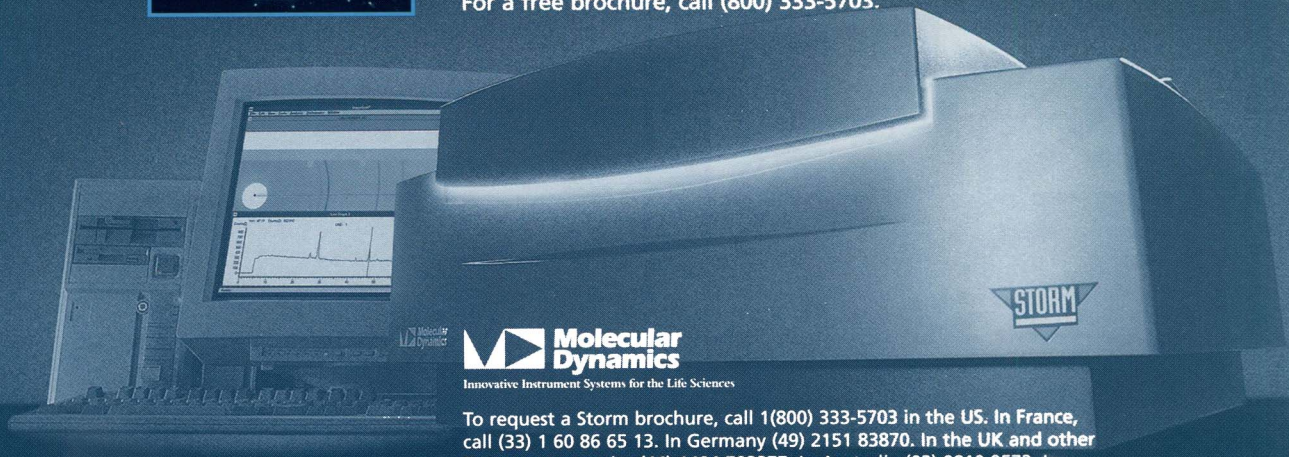
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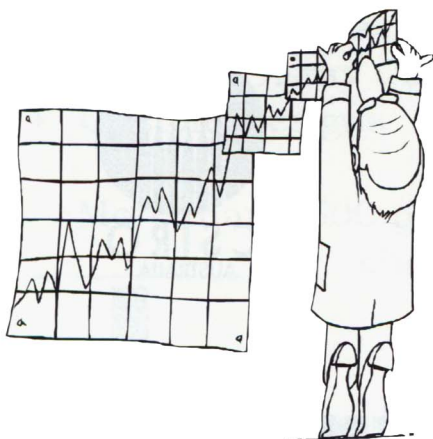
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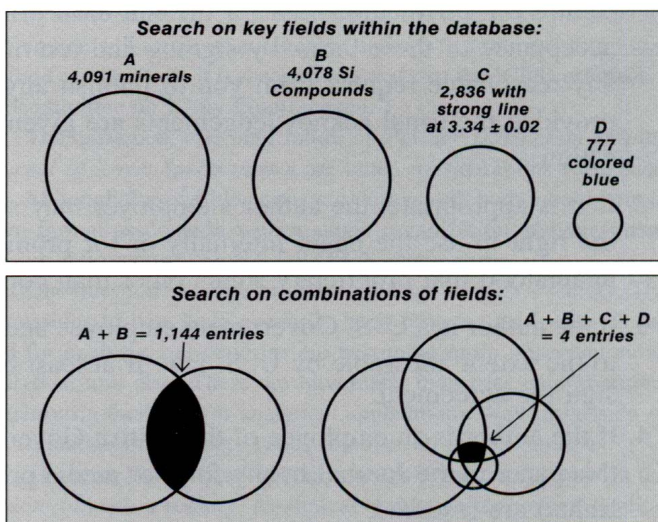
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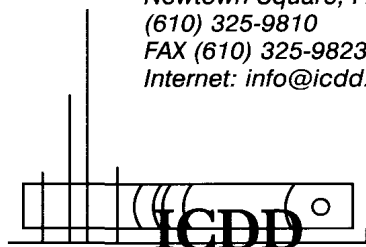
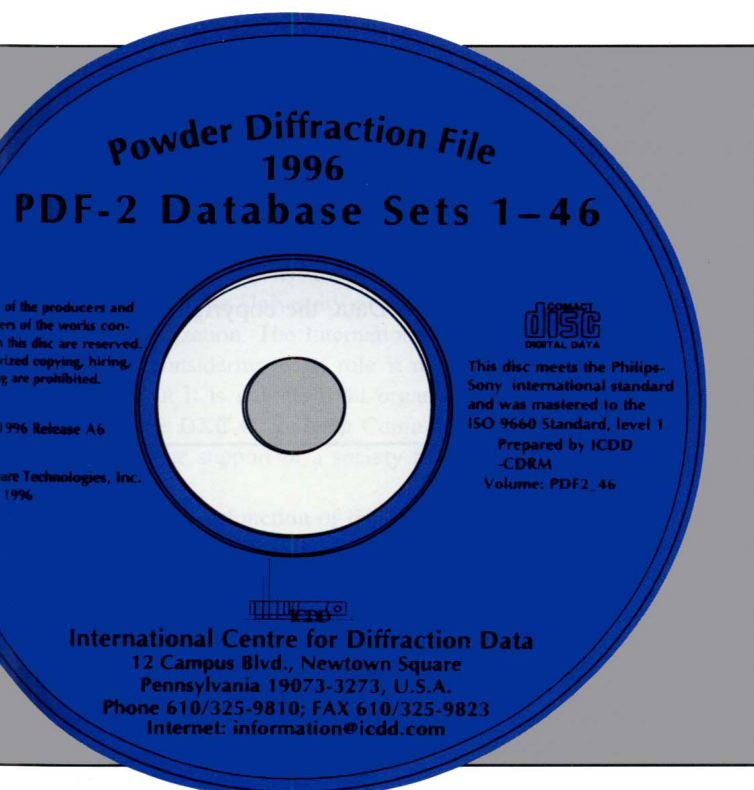


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