



# Powder Diffraction

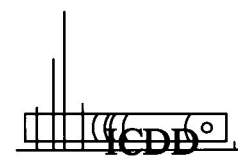
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Volume 14 Number 1 March 1999

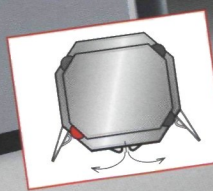
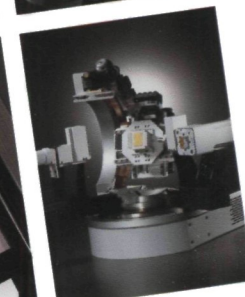
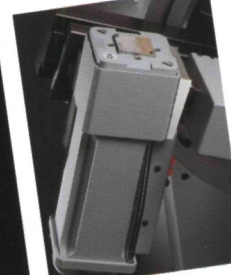
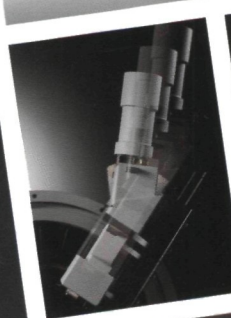
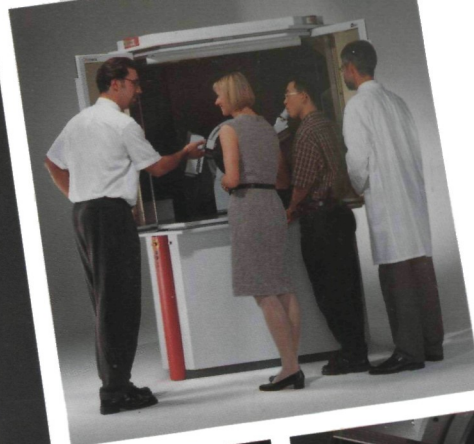
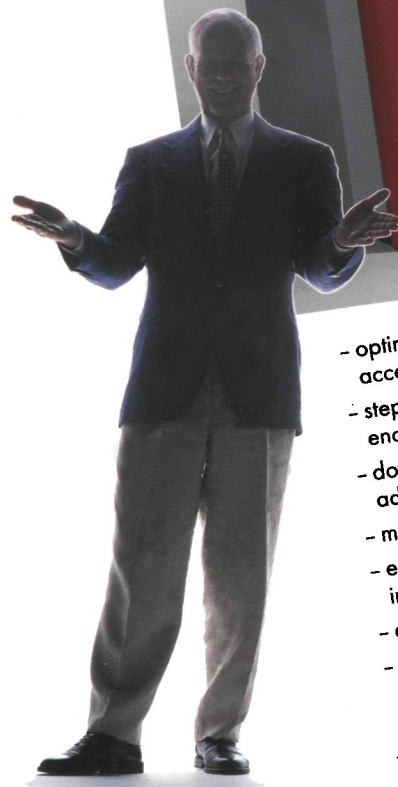
33-1161  
SiO<sub>2</sub>  
Silicon Oxide  
Quartz, syn

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	1.0150	1	214
1.8021	<1	103	1.0347	<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	306
1.5418	9	211	0.9762	1	320
1.4536	1	113	0.9762	1	320
1.4189	<1	300	0.9636	<1	205
1.3820	6	212			
1.3752	7	203			
1.3718	8	301			
1.2880	2	104			
1.2558	2	302			
1.2285	1	220			
1.1999	2	213			
1.1978	2	221			
1.1843	1	221			
1.1804	3	311			
1.1804	3	311			

Rad. CuKα, λ 1.540598 Filter Mono. d-sp Diff. ★  
 Cut off Int. Diffractometer I/L<sub>α</sub> 3.6  
 Ref. Natl. Bur. Stand. (U.S.) Monogr. 25, 18 61 (1981)  
 Sys. Hexagonal S.G. P3<sub>2</sub>1 (154)  
 a 4.9133(2) b c 5.4053(4) A 154 B 154 C 1.1001  
 α γ Z 3 mp  
 D<sub>x</sub> 2.65 D<sub>m</sub> 2.66  
 Ref. Swanson, Fuyat, Natl. Bur. Stand. (U.S.), Cir. 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, University, Fargo, North Dakota, USA. ICDD Grant-in-Aid (1990). Agrees well with experimental and calculated patterns. O<sub>2</sub>Si type. Quartz group. Also called: silica. Also called: low quartz. Silica used as internal standard. PSC: hP9. To replace 5-490 and validated by calculated pattern. Plus 6 additional reflections to 0.9089.



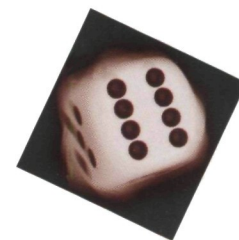




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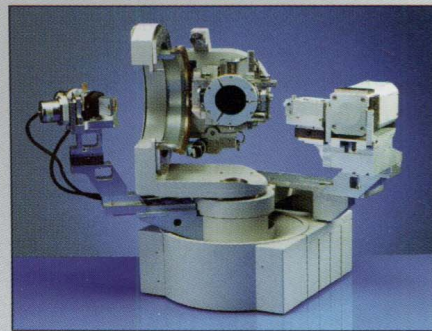
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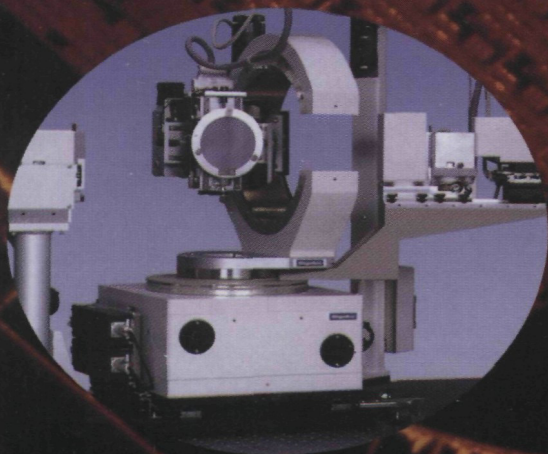
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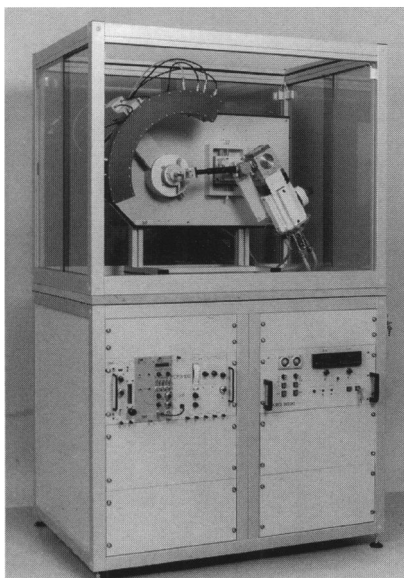
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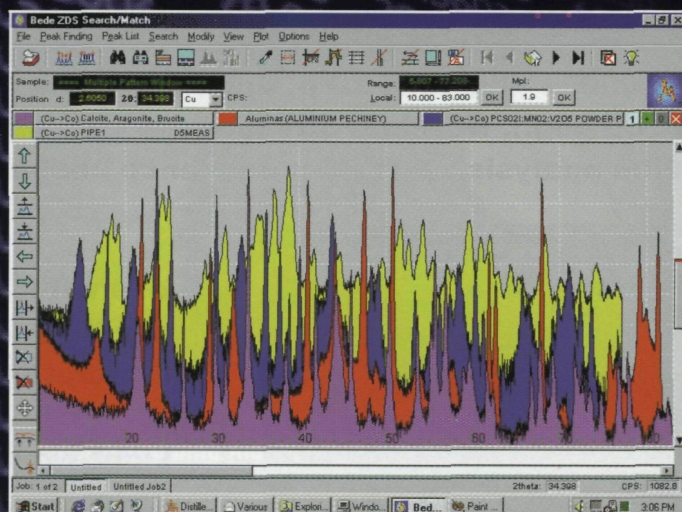
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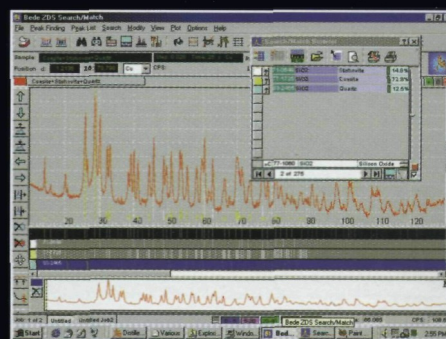
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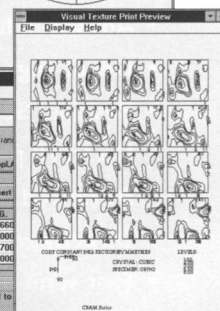
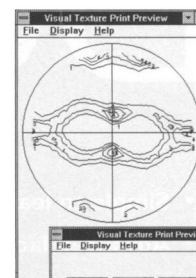
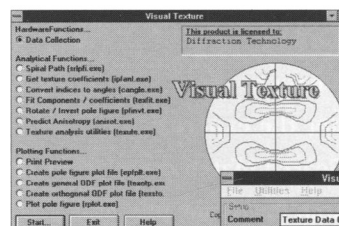
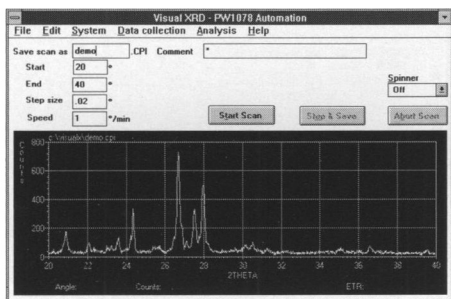


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Final						26.000

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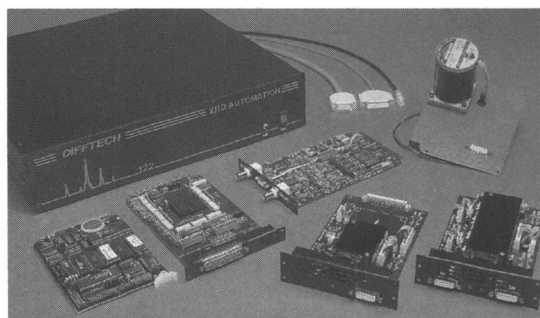
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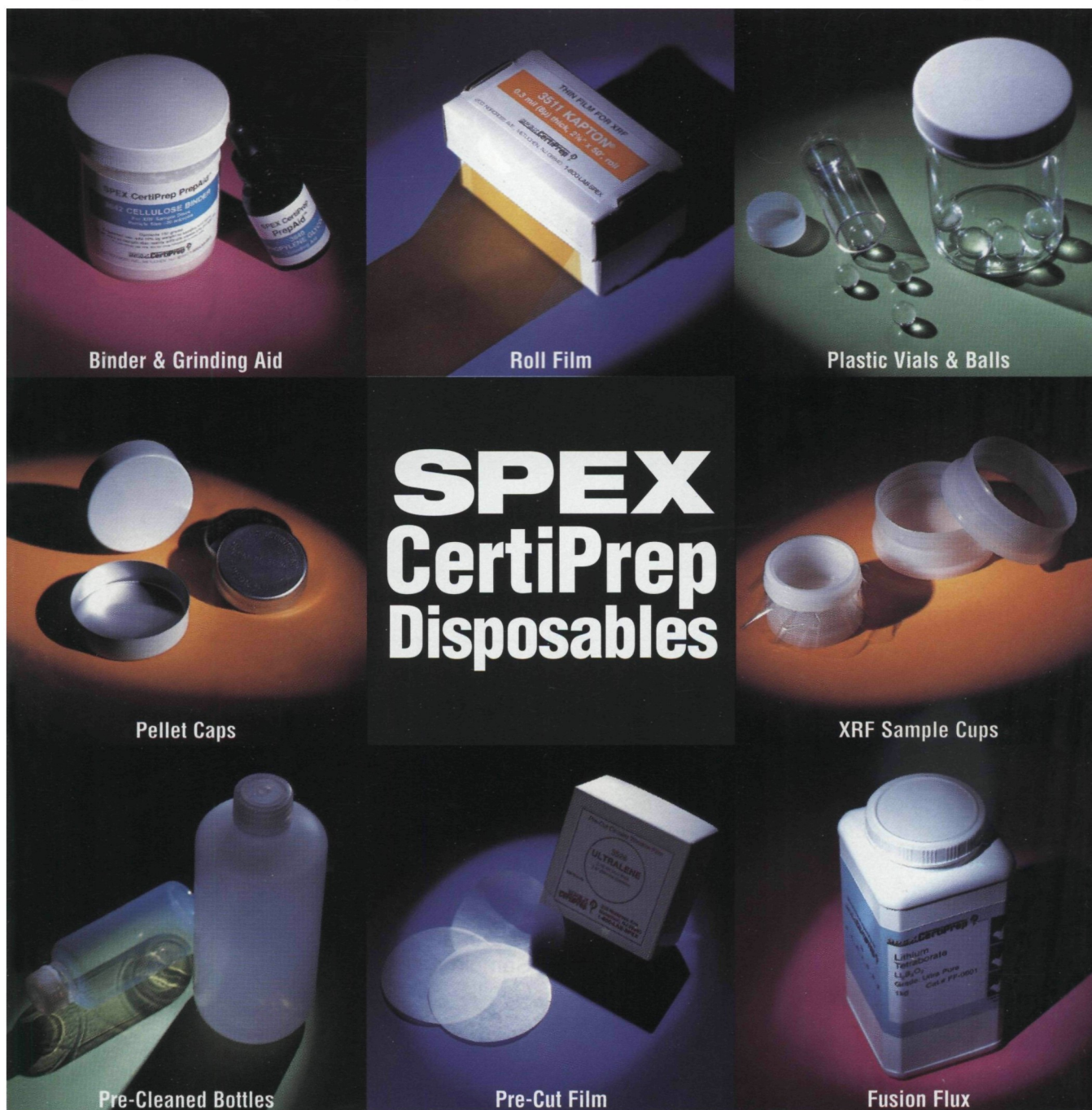


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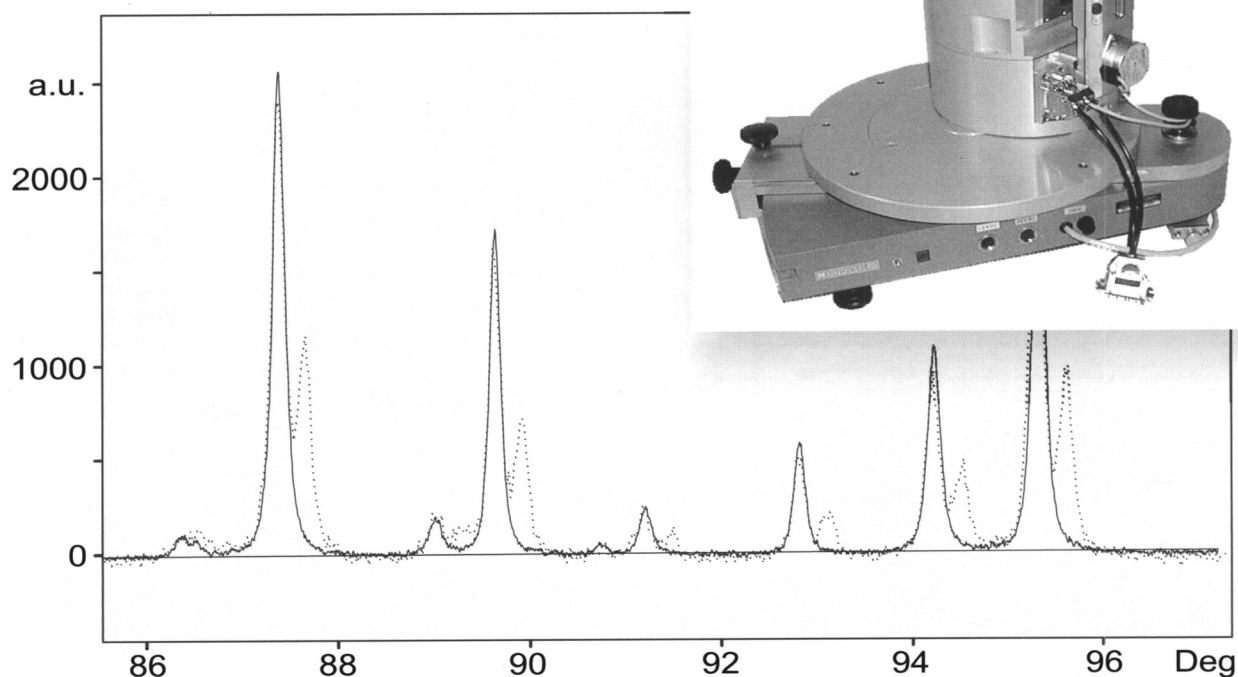
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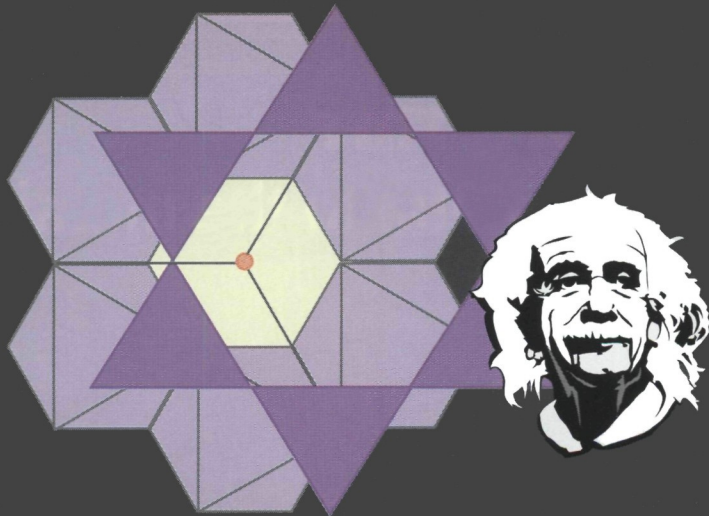
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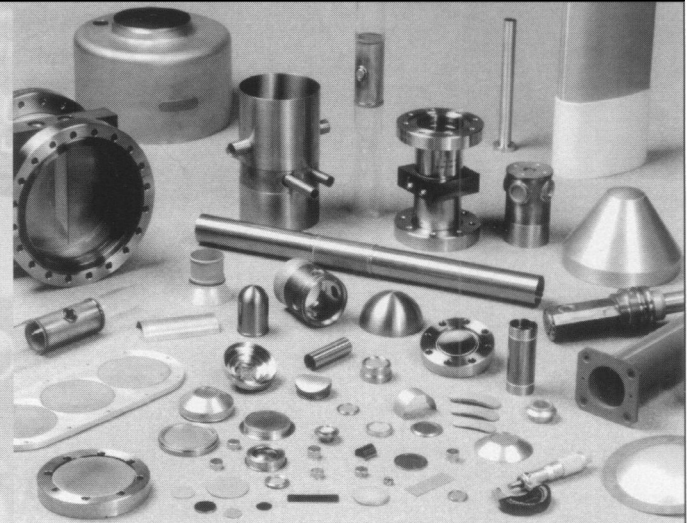
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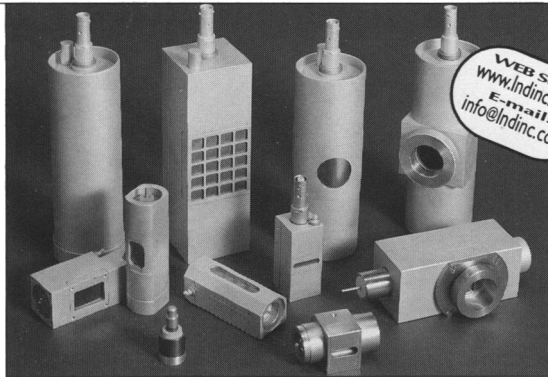
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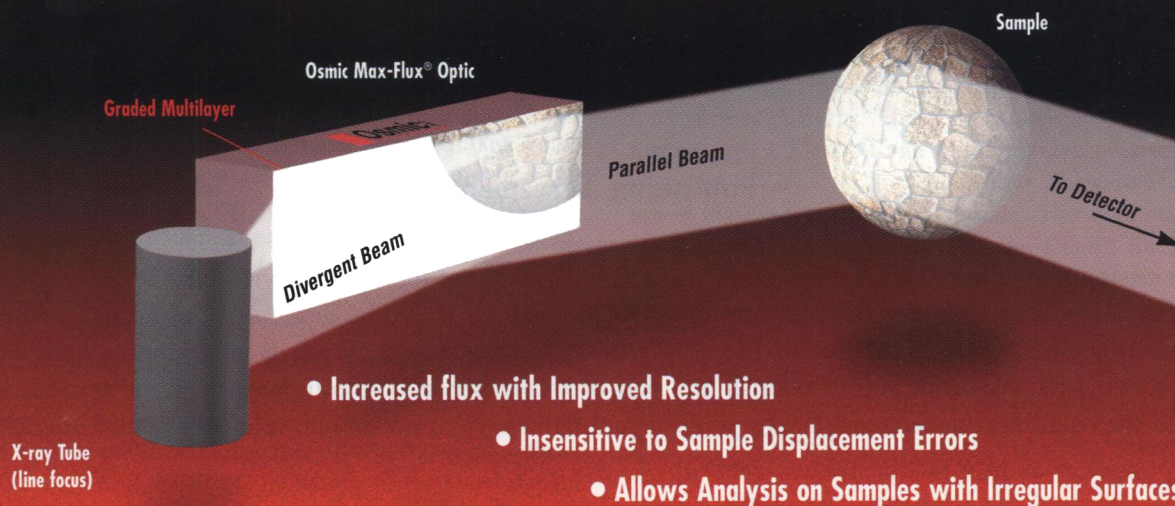
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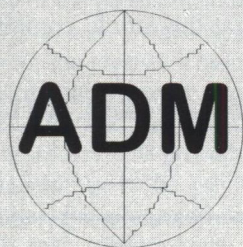
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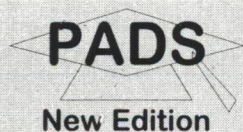
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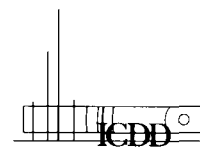
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