



# Powder Diffraction

*An international  
journal of materials  
characterization*

Volume 11 Number 2 June 1996

33-1161  
SiO<sub>2</sub>  
Silicon Oxide

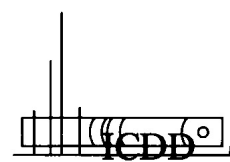
Quartz, syn  
Rad. CuKα<sub>1</sub>  
Cut off  
Ref. *Natl. Bur. Stand. (U.S.) Monogr. 25, 18 61 (1981)*

Sys. Hexagonal  
a 4.9133(2)  
b  
c 5.4053(4)  
α  
β  
γ  
D<sub>1</sub> 2.65  
D<sub>2</sub> 2.66  
Ref. Swanson, Fuyat, *Natl. Bur. Stand. (U.S.), Circ. 539, 3 24 (1954)*

λ 1.40598 Filter Mono. d-sp Diff. I/L<sub>α</sub> 3.6  
Int. Diffractometer  
S.G. P3,21 (154)  
Z 3  
A C 1.1001  
mp  
SS/FOM F<sub>w</sub>=77(013,31)  
ey 1.553 Sign + 2V  
*Natl. Bur. Stand. (U.S.), Circ. 539, 3 24 (1954)*

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	223
1.8021	<1	003	1.0150	<1	214
1.6719	4	202	0.9898	1	223
1.6391	2	103	0.9873	1	402
1.6082	<1	210	0.9783	1	313
1.5418	9	211	0.9762	<1	304
1.4536	1	113	0.9636	1	320
1.4189	<1	300		<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	1	221			
1.1843	3	114			
1.1804	3	313			

Colorless  
Pattern taken at 25 C. Sample from the Glass Section at NBS.  
University, Fargo, North Dakota, USA. Ground single-crystals of optical qual-  
ity. Pattern reviewed by Holzer, J., McCarthy, G., North Dakota State  
University, Fargo, North Dakota, USA. *ICDD Grant-in-Aid (1990)*.  
Agrees well with experimental and calculated patterns. O,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 cal-  
culated pattern. Plus 6 additional reflections to 0.9089.

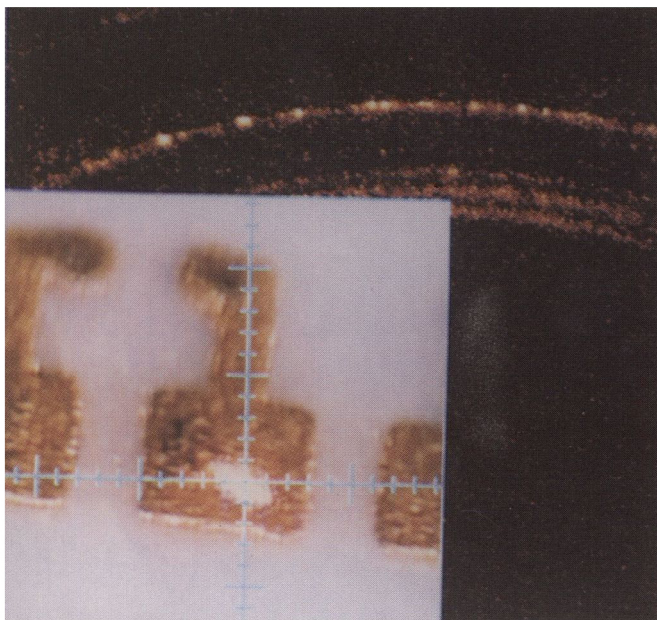
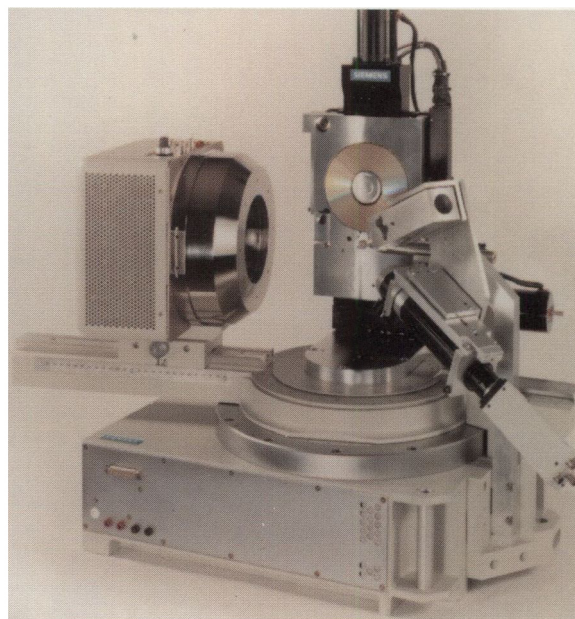


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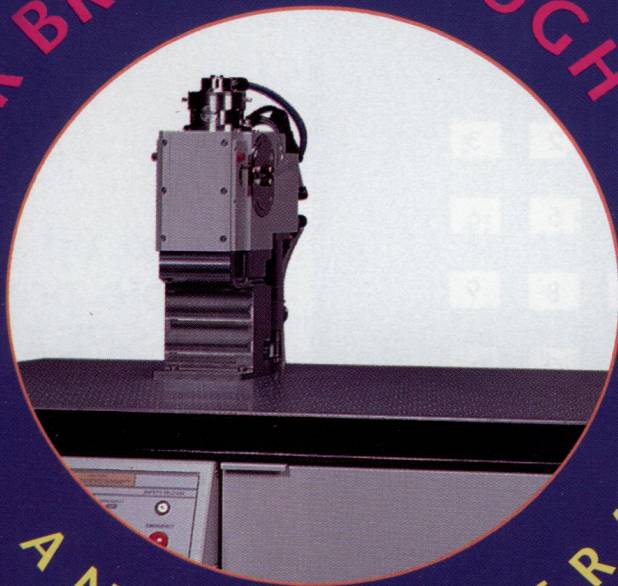
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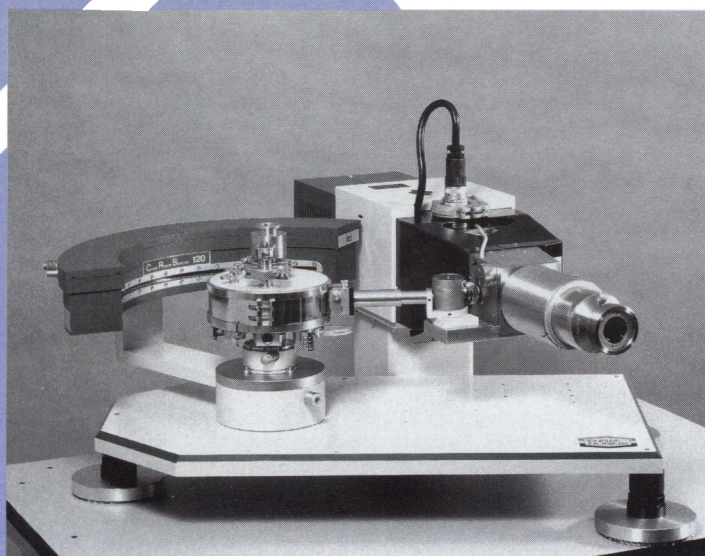
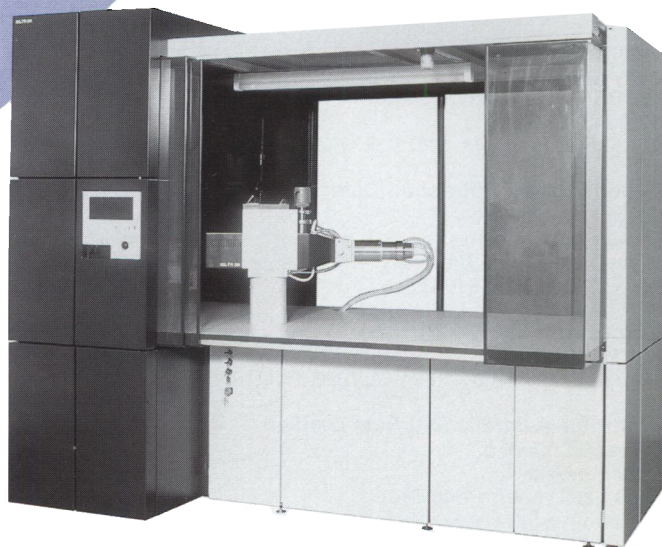
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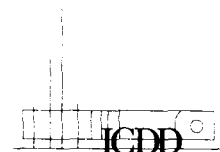
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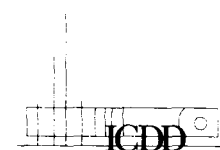
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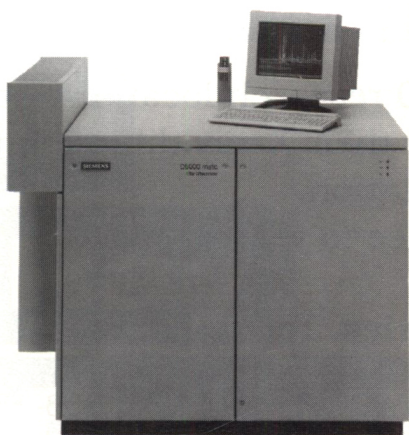
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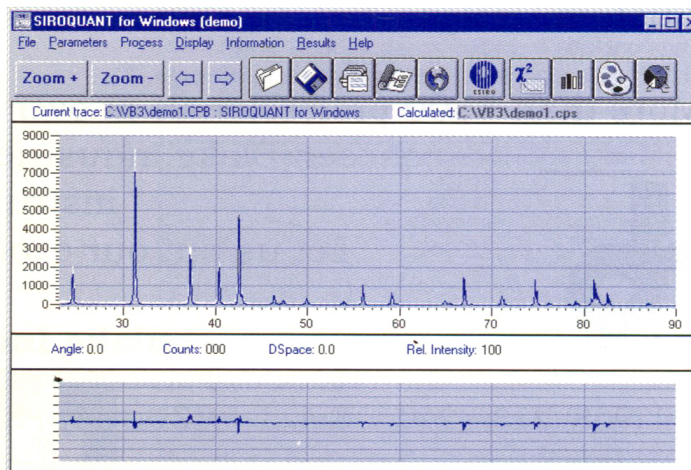


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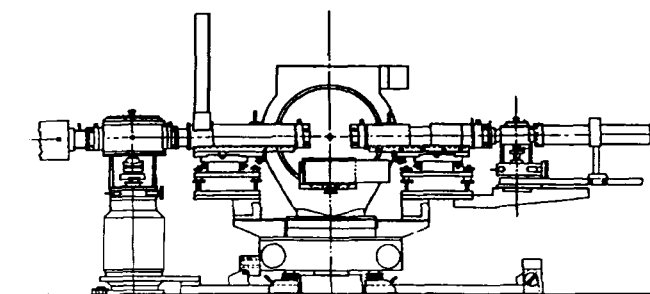
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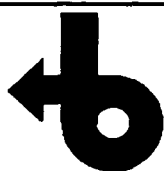
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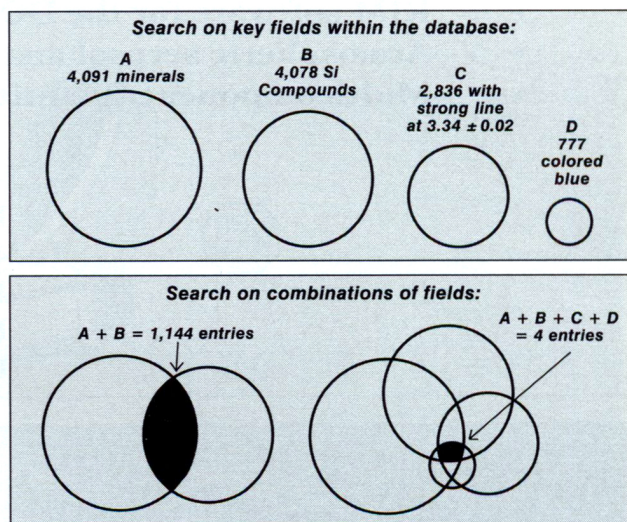
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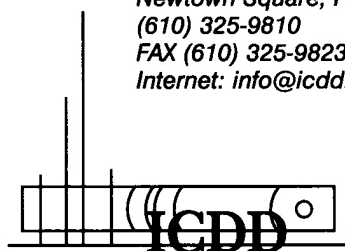
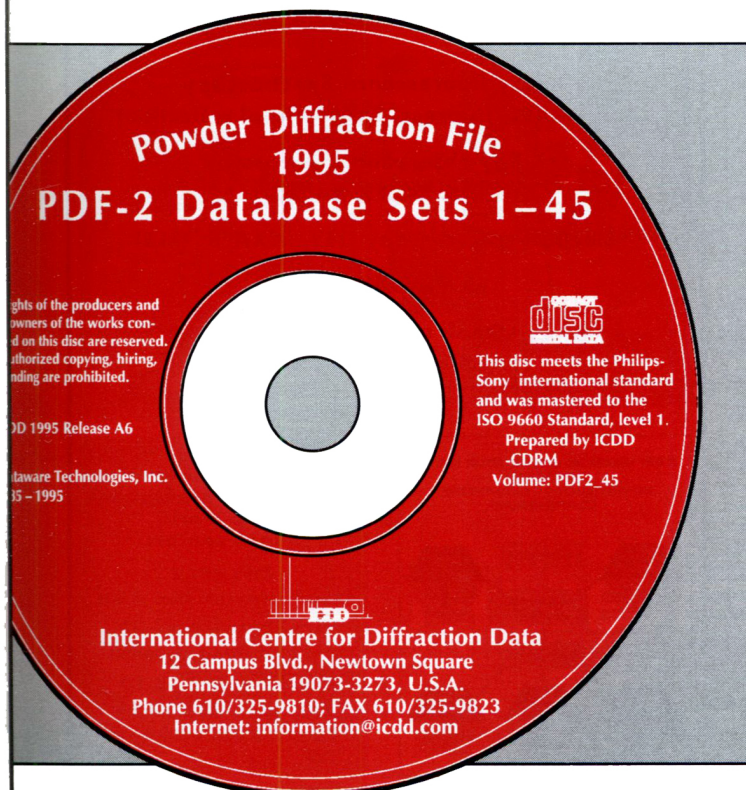


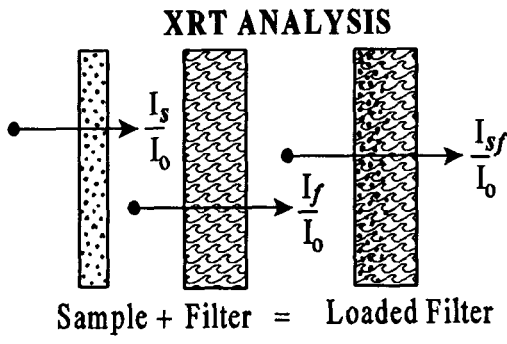
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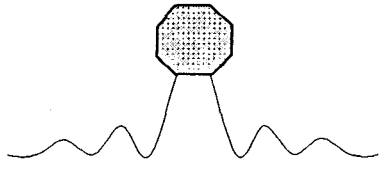


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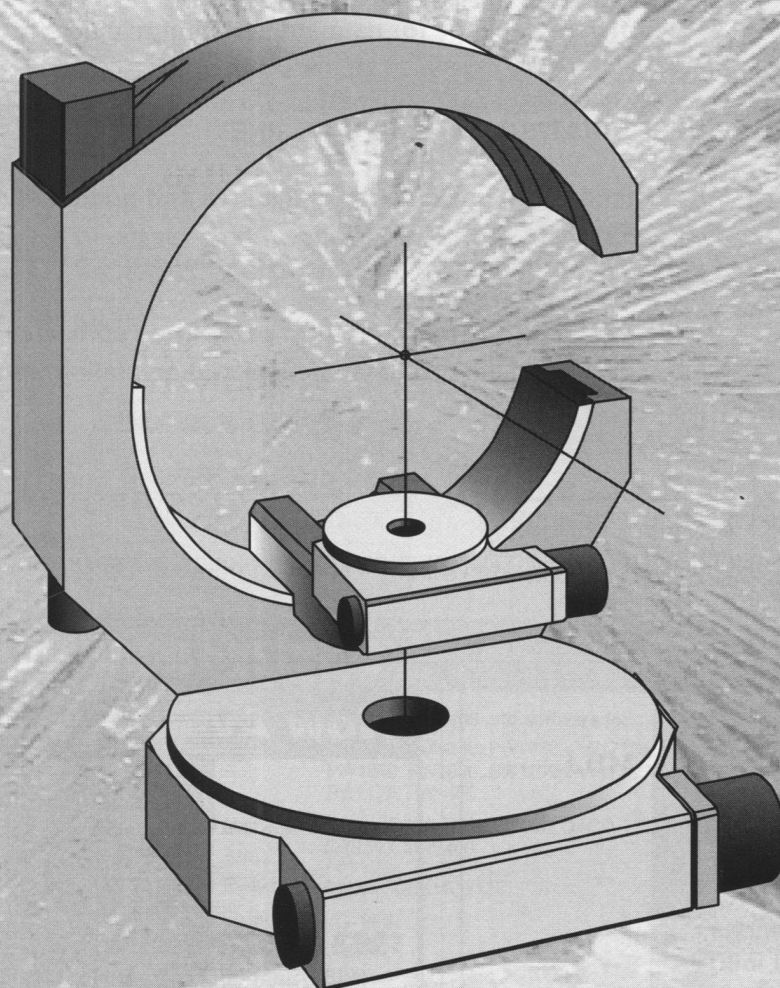
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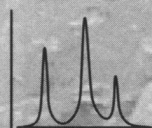
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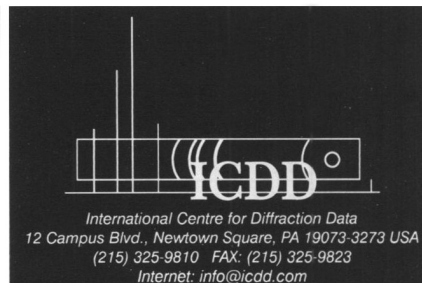
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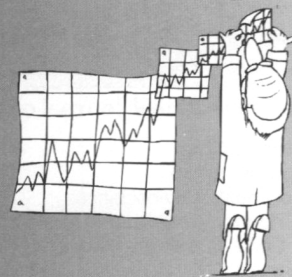
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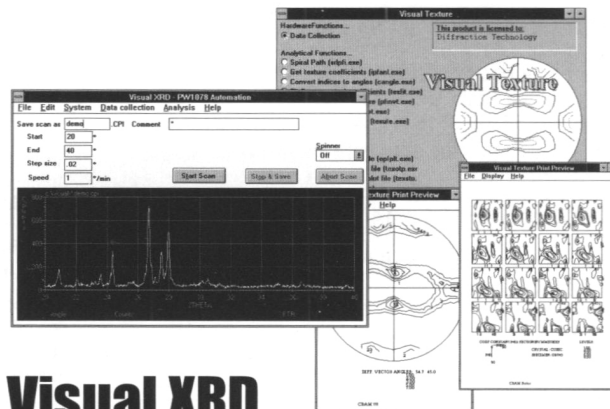
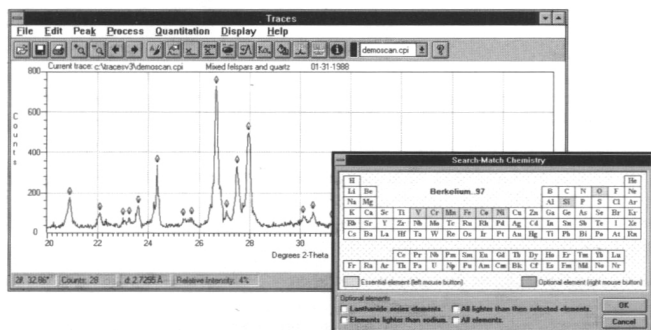


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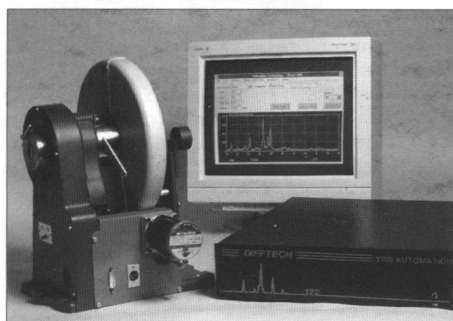
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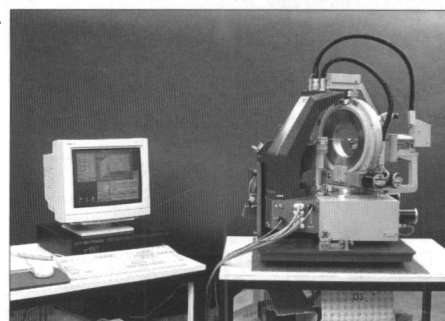
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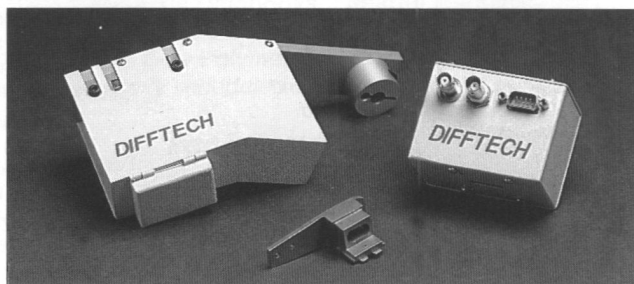
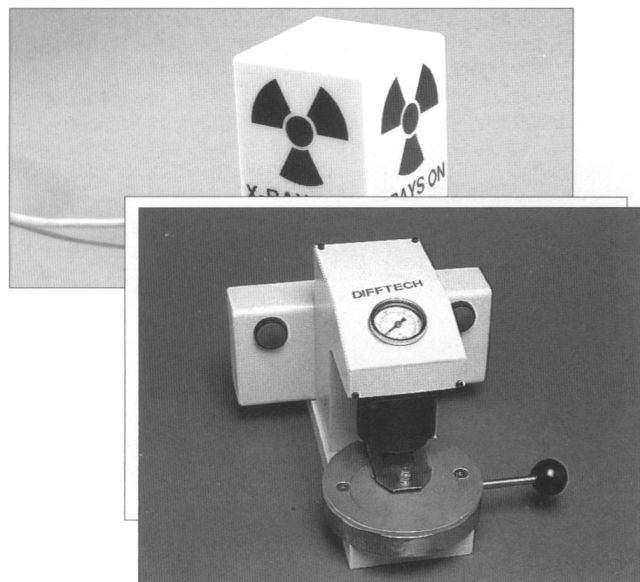


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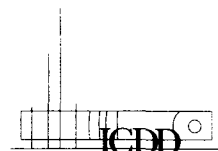
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- c. The funds of the scholarship are not to be used for travel.

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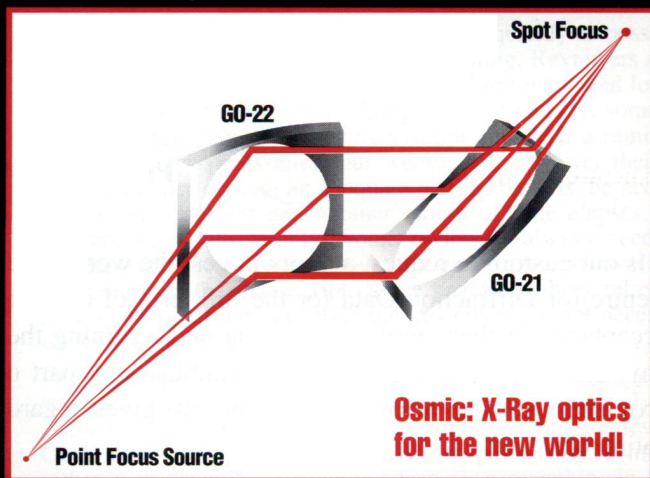
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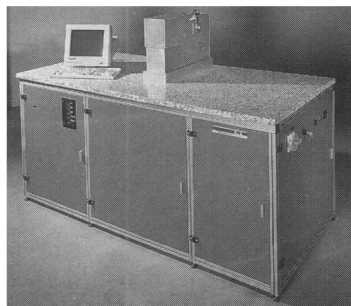


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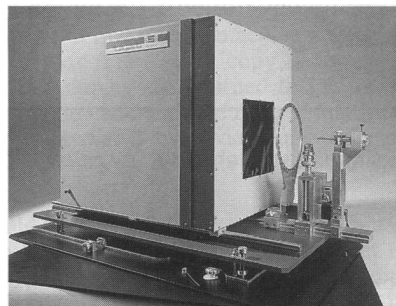
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