



Powder Diffraction

An international journal of materials characterization

Volume 11 Number 1 March 1996

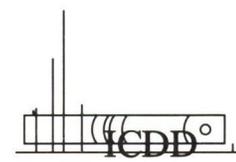
33-1161
SiO₂
Silicon Oxide
Quartz, syn

Rad. CuKα ₁	λ 1.540598	Filter Mono.	d-sp Diff.	dÅ	Int	hkℓ	dÅ	Int	hkℓ
Cut off			1/λ _{cr} 3.6	4.257	22	100	1.1532	1	311
Ref. Natl. Bur. Stand. (U.S.) Monogr. 25, 18 61 (1981)				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	4	111	1.0476	1	105
				1.9792	6	200	1.0438	<1	401
				1.8179	4	201	1.0347	1	214
				1.8021	14	112	1.0150	1	223
				1.6719	<1	003	0.9898	1	402
				1.6591	4	202	0.9873	1	313
				1.6082	2	103	0.9783	<1	304
				1.5418	<1	210	0.9762	1	320
				1.4536	9	211	0.9636	<1	205
				1.4189	1	113			
				1.3820	<1	300			
				1.3752	6	212			
				1.3718	7	203			
				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	311			
					3	312			

S.G. P3₂1 (154)
c 5.4053(4) A C 1.1001
Z 3 mp

SS/FOM F_w=77(013,31)
ey 1.553 Sign + 2V
Ref. Swanson, Fuyat, Natl. Bur. Stand. (U.S.), Circ. 539, 3 24 (1954)

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, J., McCarthy, G., North Dakota State University, Fargo, North Dakota, USA. ICDD *Grant-in-Aid* (1990). Agrees well with experimental and calculated patterns. O₂-Si type. Quartz group. 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.

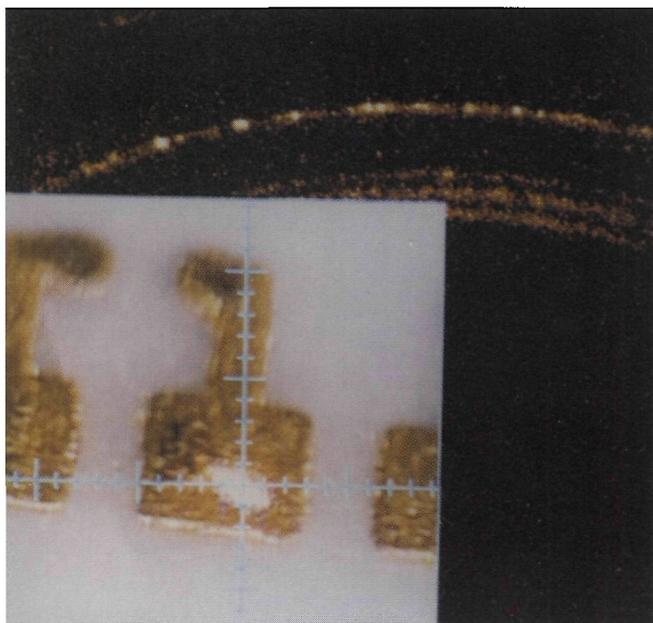
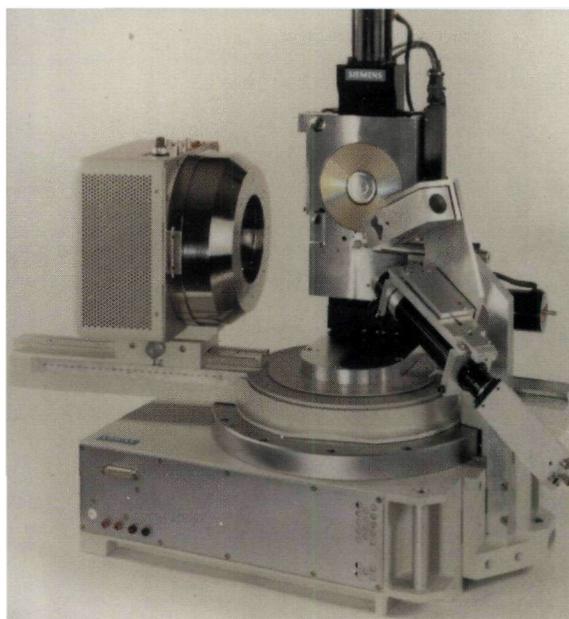


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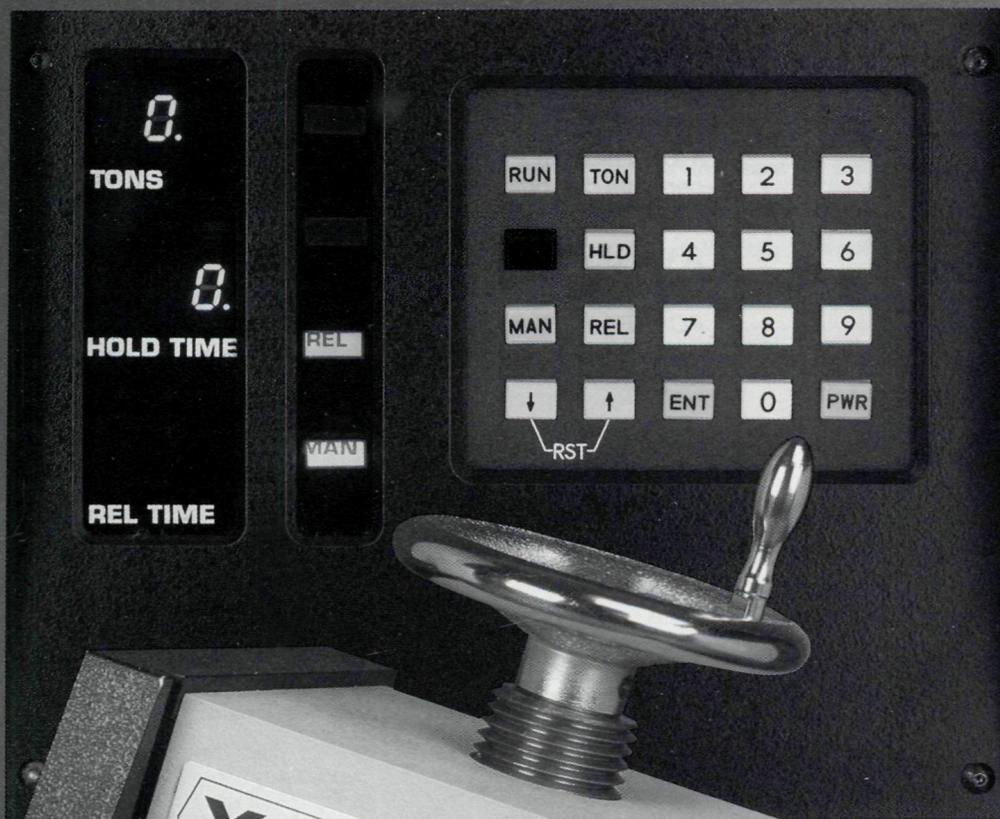
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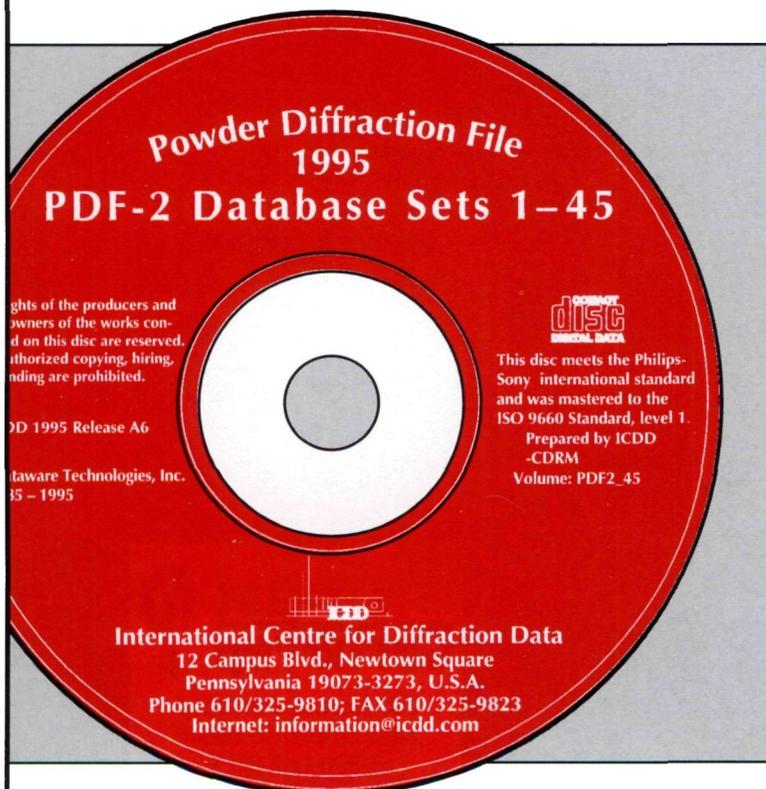
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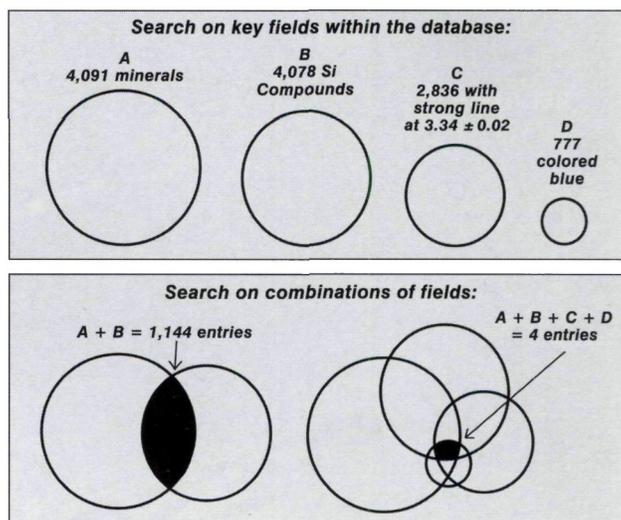
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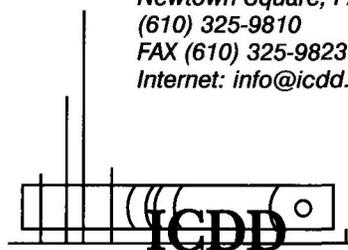


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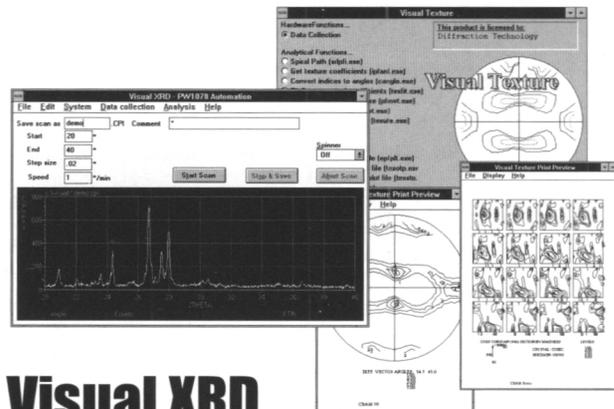
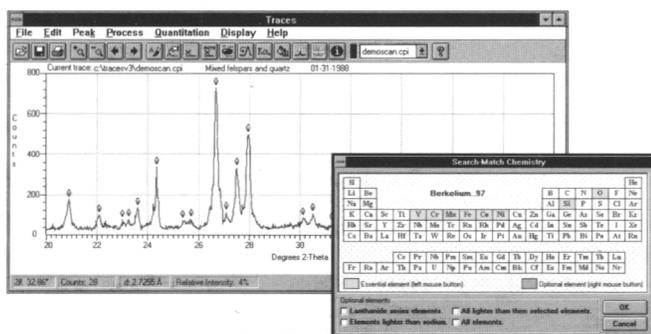
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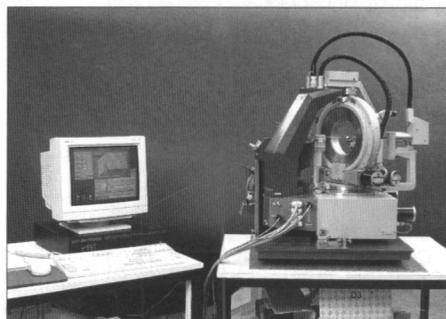


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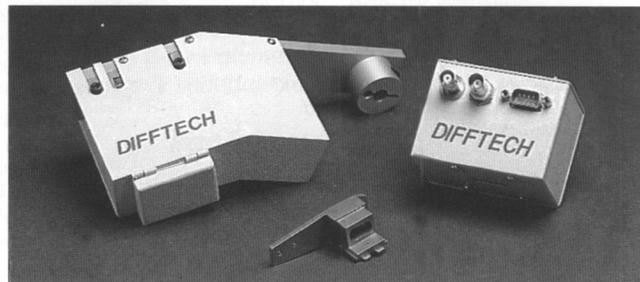
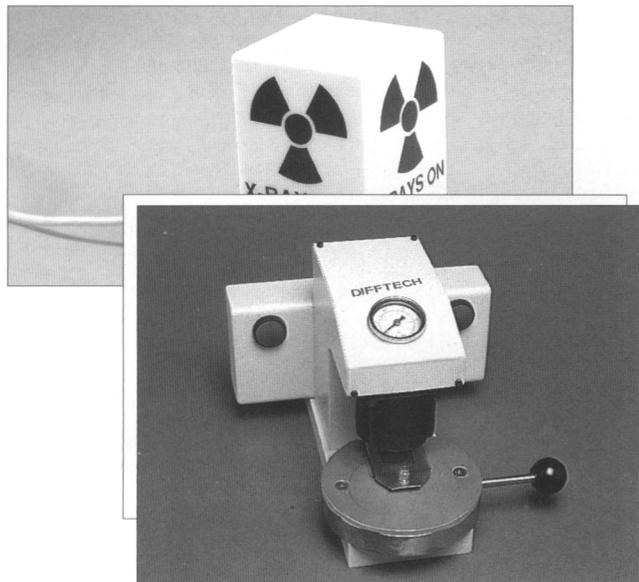
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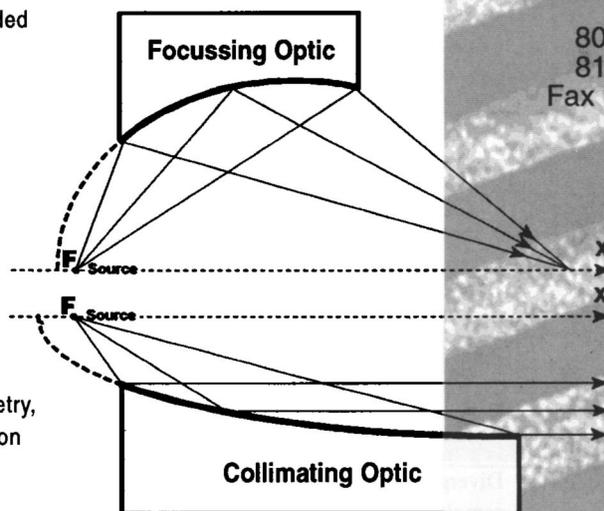
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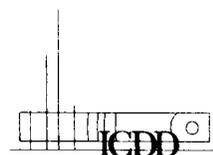
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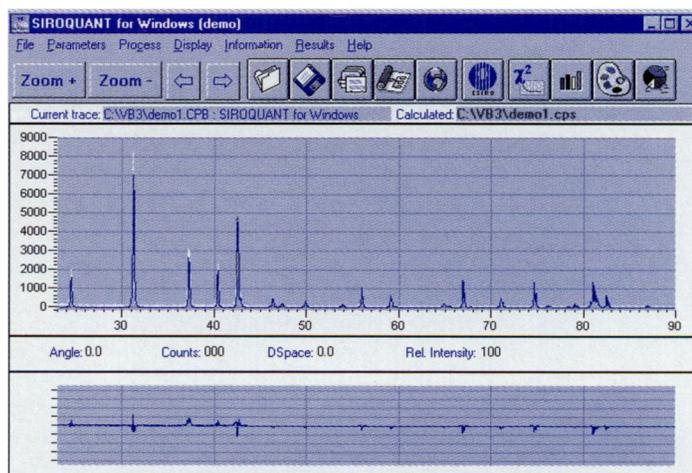


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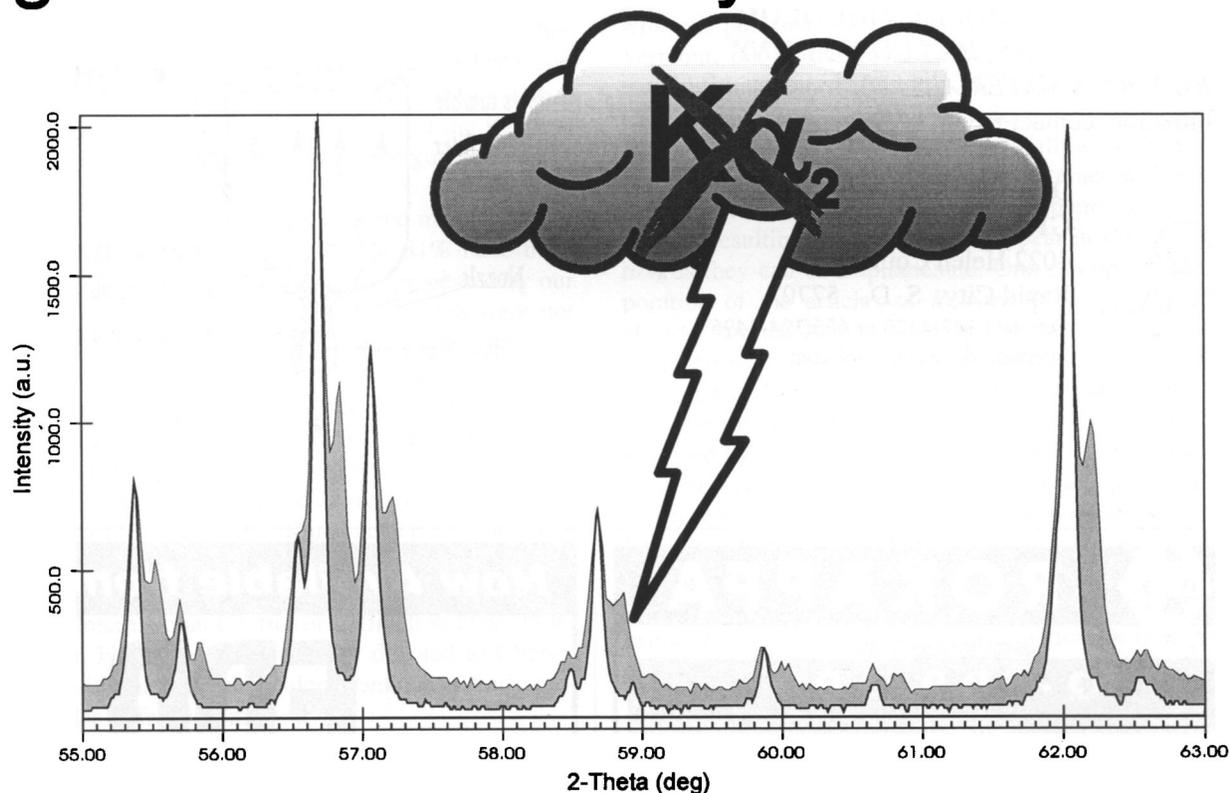
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The International Centre for Diffraction Data is pleased to announce the awarding of four Crystallography Scholarships for 1996. Mr. Patrick M. Len, University of California, Davis, USA; Mr. Aaron Oakley, St. Vincent's Institute of Medical Research, Australia; Ms. Liat Shimoni, Fox Chase Cancer Center, USA; and, Mr. Hongwu Xu, Princeton University, USA, have been designated recipients by the ICDD Scholarship Award Selection Committee.

Patrick Len's research centers on the theoretical development of a holographic technique to determine atomic crystal structure from electron or fluorescent X-ray diffraction data. Aaron Oakley is exploring structural and functional aspects of glutathione S-transferases by X-ray crystallography and computer graphics techniques. Liat Shimoni is determining the crystal structures of two enzymes: porphobilinogen synthase and ubiquitin carboxyl-terminal hydrolase. Hongwu Xu is studying "High Temperature TEM and X-ray Diffraction Studies of the Order-Disorder Phase Transition in B-Eucryptite".

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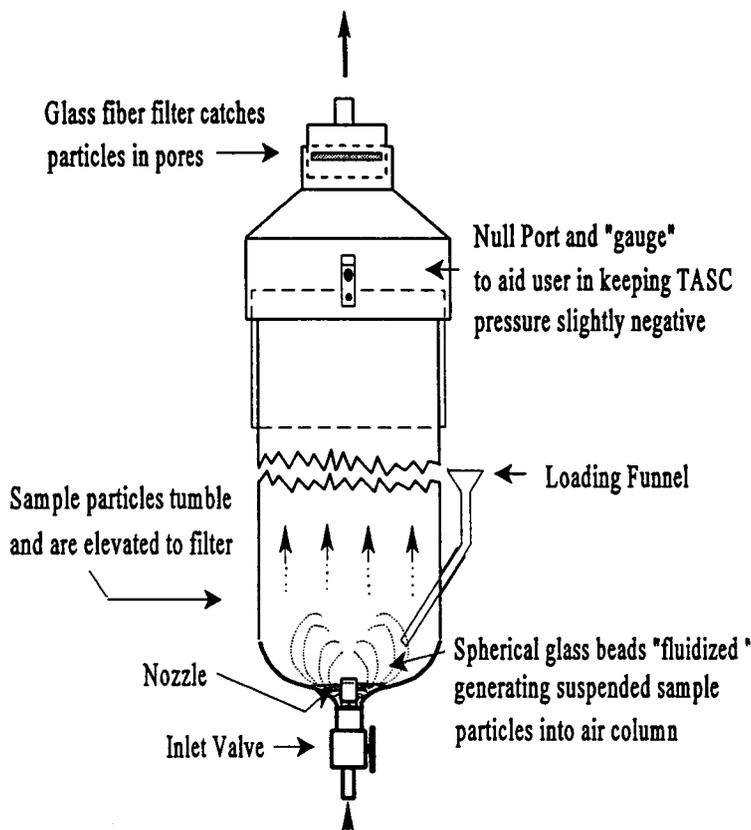
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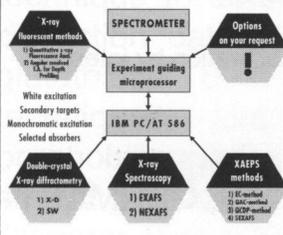


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