



Powder Diffraction

*An international
journal of materials
characterization*

Volume 14 Number 2 June 1999

33-1161
SiO₂
Silicon Oxide
Quartz, syn
Rad. CuKα, λ 1.40598 Filter Mono. d-sp Diff.
Cut off Int. Diffractometer I/λ_{max} 3.6
Ref. Natl. Bur. Stand. (U.S.) Monogr. 25, 18 61 (1981)

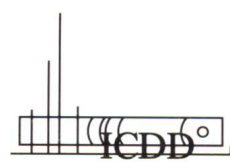
S.G. P3,21 (154)
c 5.4053(4) A Z 3 mp C 1.1001

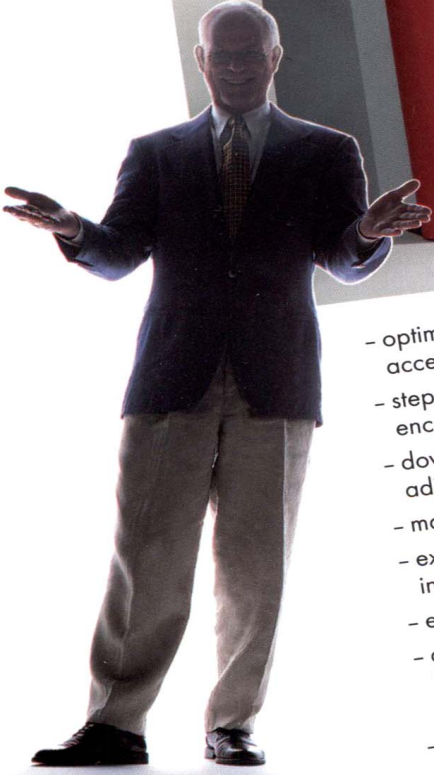
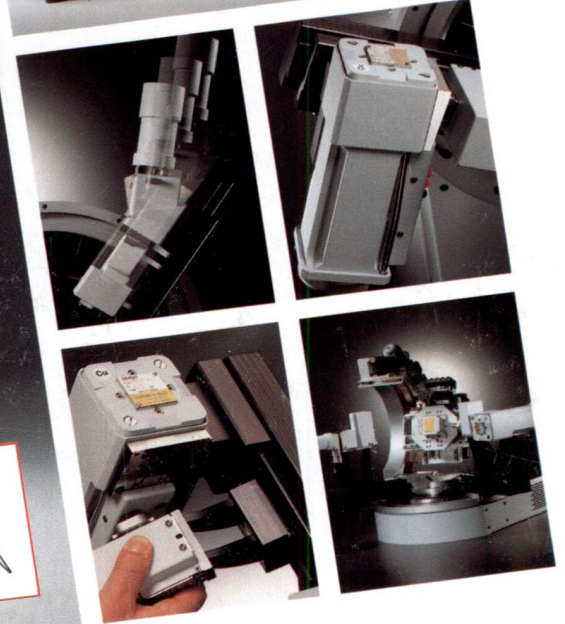
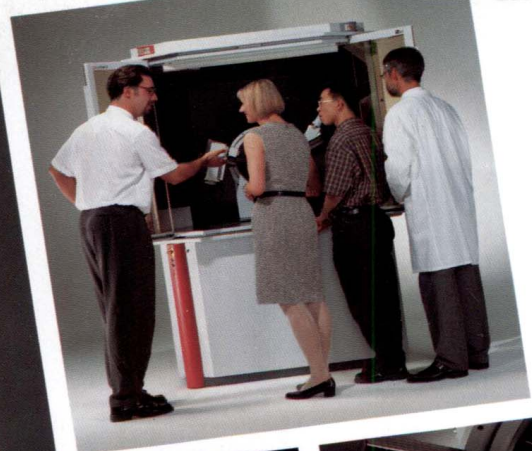
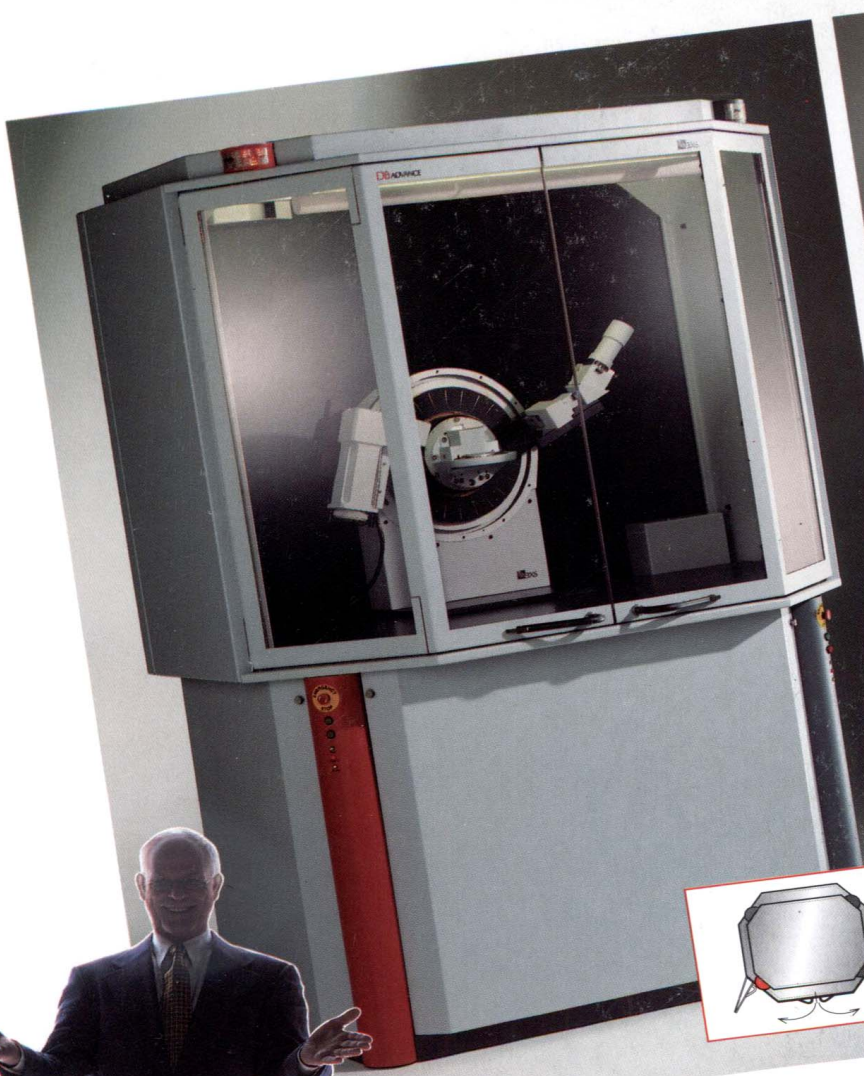
D₁ 2.65 D₂ 2.66
Ref. Swanson, Fuyat, Natl. Bur. Stand. (U.S.), Circ. 539, 3 24 (1954)

Colorless
Pattern taken at 25°C. Sample from the Glass Section at NBS.
Gaithersburg, Maryland, USA, ground single-crystals of optical qual-
ity. Pattern revised 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	1.0347	<1	401
1.8179	14	112	1.0438	<1	214
1.8021	14	103	1.0347	<1	223
1.6719	<1	202	1.0150	<1	402
1.6591	4	202	0.9898	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	114			
	3	311			

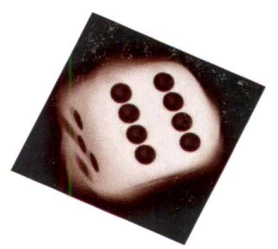
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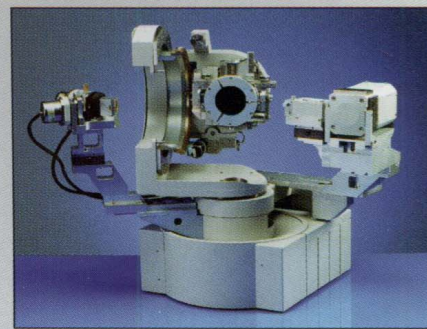
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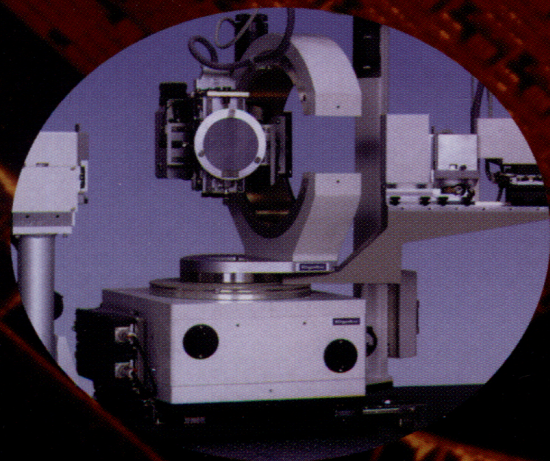
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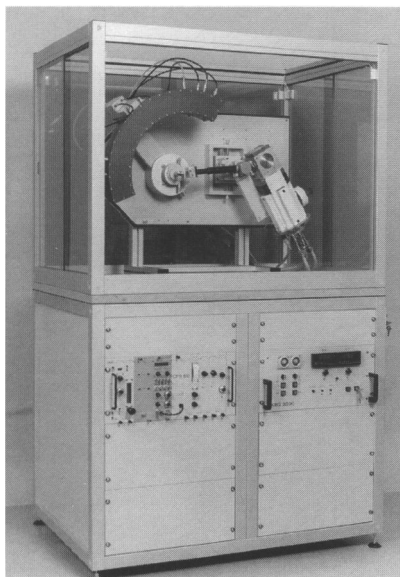
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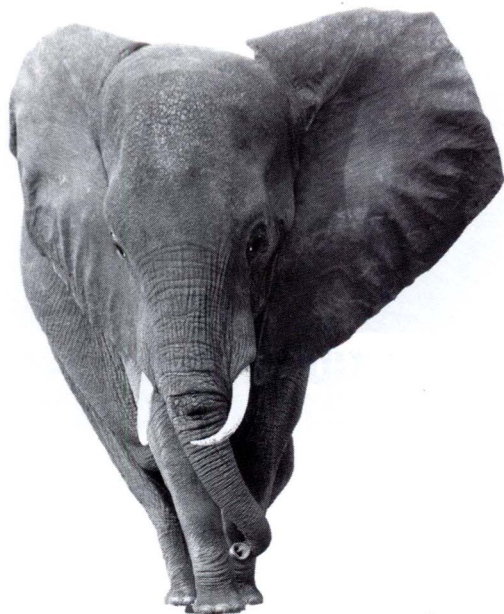
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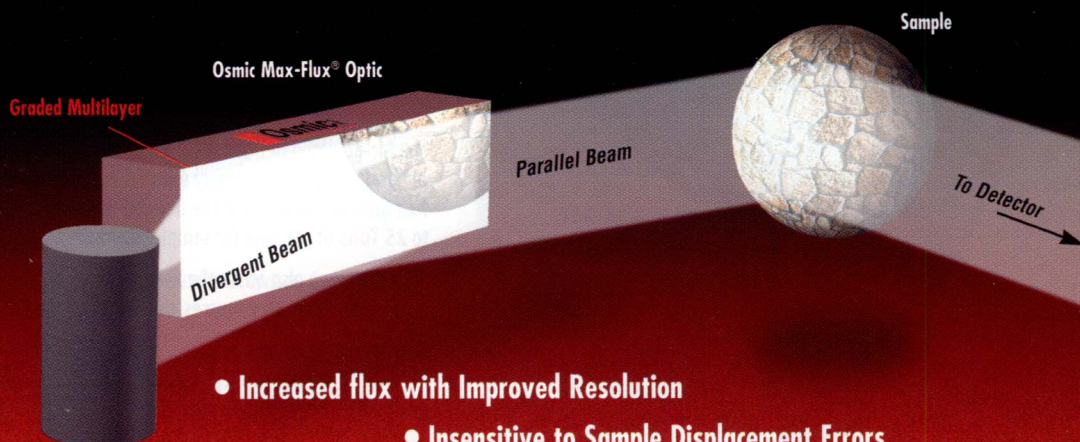
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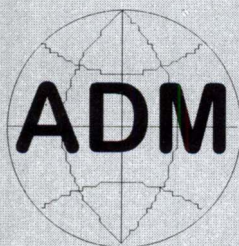
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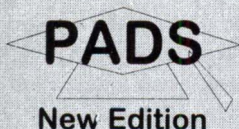
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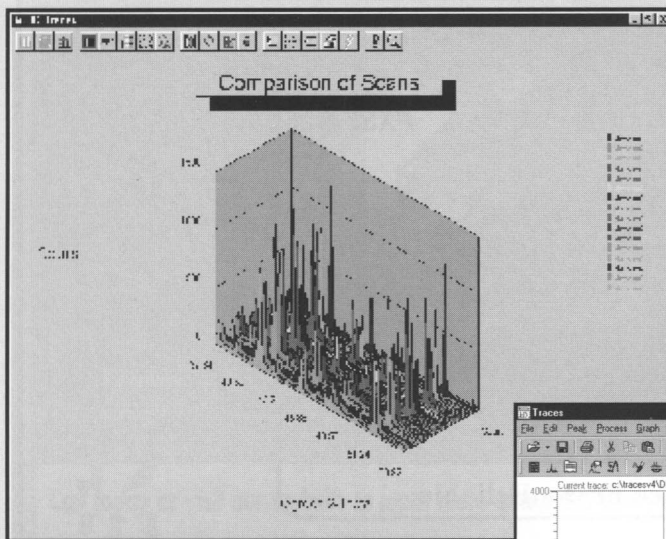
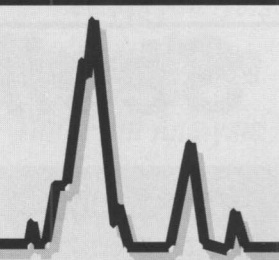
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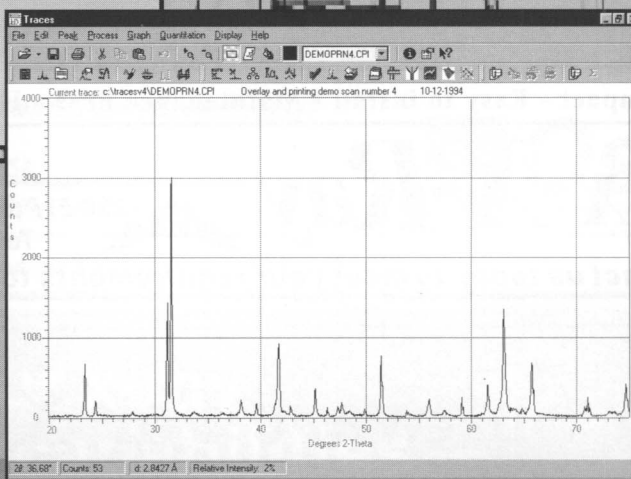
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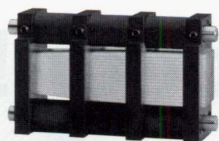
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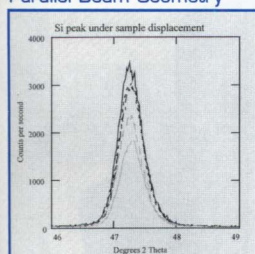
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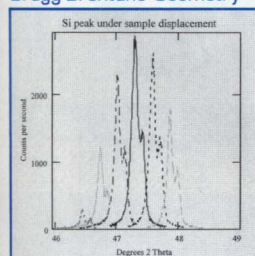


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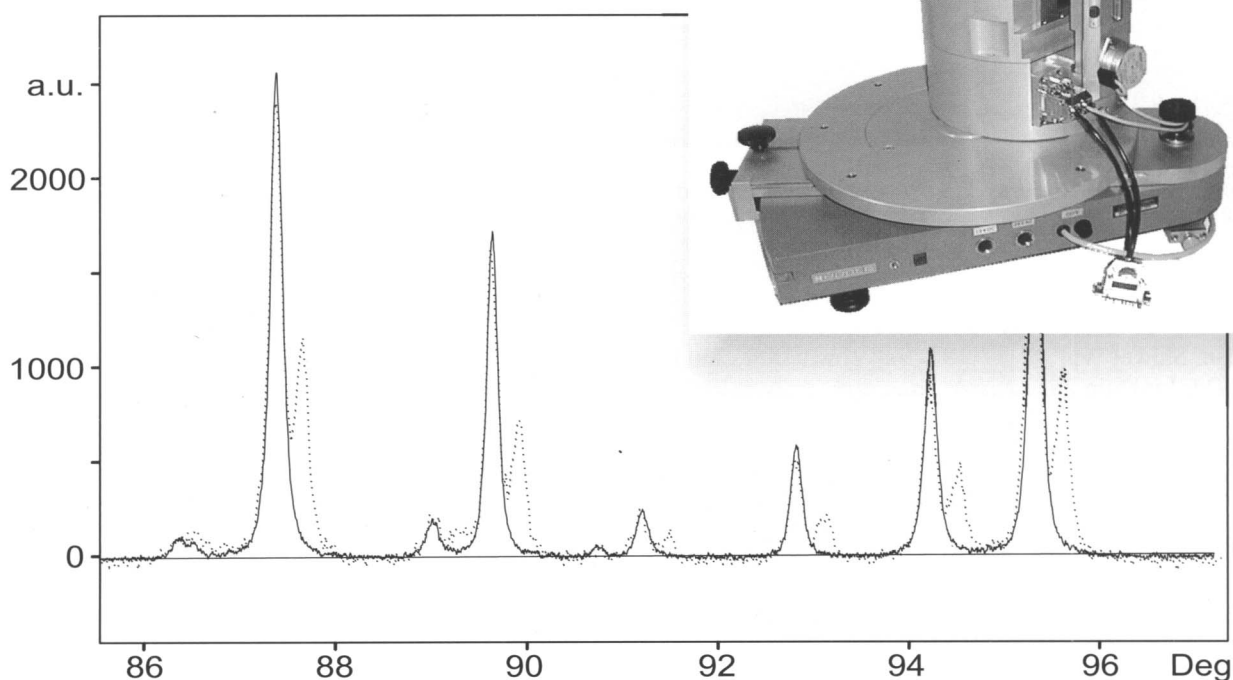


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