



# Powder Diffraction

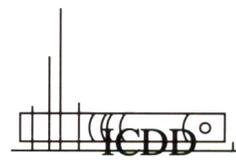
*An international journal of materials characterization*

Volume 13 Number 2 June 1998

**33-1161**  
 SiO<sub>2</sub>  
 Silicon Oxide  
 Quartz, syn  
 Rad. CuKα<sub>1</sub> λ 1.40598 Filter Mono. d-sp Diff.  
 Cut off Int. Diffractometer I/λ<sub>0</sub> 3.6  
 Ref. Natl. Bur. Stand. (U.S.) Monogr. 25, 18 61 (1981)

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	123
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	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	310			

S.G. P3<sub>2</sub>1 (154)  
 A C 1.1001  
 c 5.4053(4) Z 3 mp  
 D<sub>2</sub> 2.65 D<sub>3</sub> 2.66  
 Ref. Swanson, Fuyat, Natl. Bur. Stand. (U.S.), Circ. 539, 3 24 (1954)  
 SS/FOM F<sub>50</sub>=77(013,31)  
 ey 1.553 Sign + 2V  
 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, USA, ICDD Grant-in-Aid (1990).  
 University, Fargo, North Dakota. Agrees well with experimental and calculated patterns. O<sub>2</sub>Si type.  
 Quartz group. Also called: silica. Also called: low quartz. Silicon used  
 as internal standard. PSC: hP9. TO place 5-490 and validated by cal-  
 culated pattern. Plus 6 additional reflections to 0.9089.





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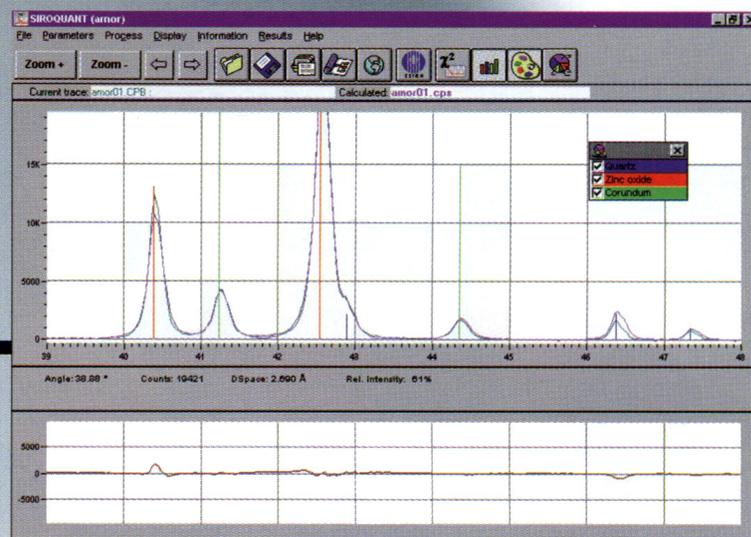
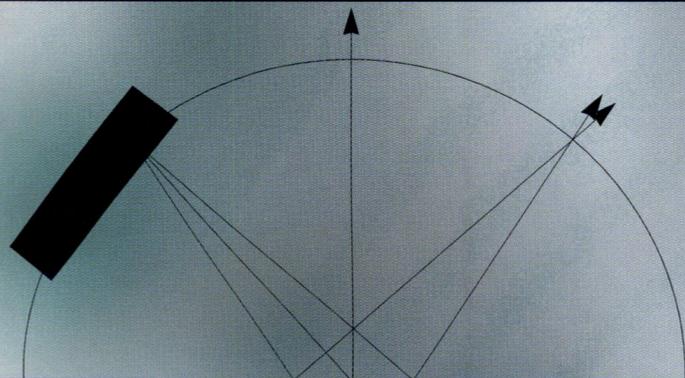
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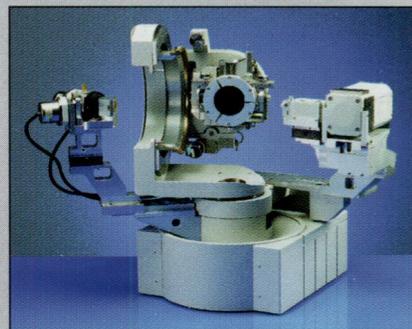
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*Powder Diffraction* (ISSN: 0885-7156) is published quarterly (4X annually) by the American Institute of Physics for the JCPDS-International Centre for Diffraction Data, 500 Sunnyside Blvd., Woodbury, NY 11797-2999. JCPDS-ICDD principal office: 12 Campus Blvd., Newtown Square, PA 19073-3273. POSTMASTER: Send address changes to *Powder Diffraction*, American Institute of Physics, 500 Sunnyside Blvd., Woodbury, NY 11797-2999. Periodicals postage paid at Woodbury, NY and additional mailing offices.

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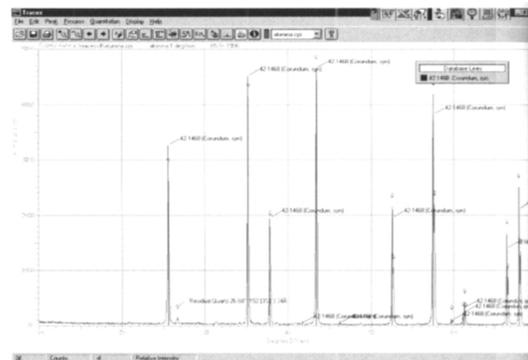
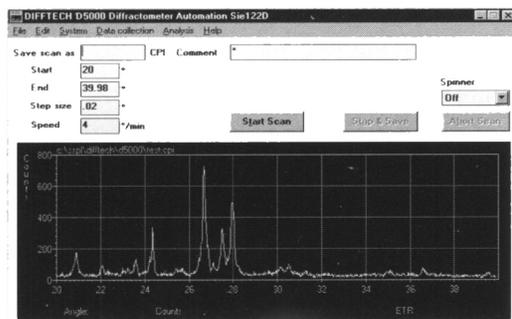
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2	21.1000	24	4.210	3
3	22.0714	69	4.027	10
4	22.3173	37	3.983	5
5	22.7400	16	3.910	2
6	23.0015	44	3.866	6

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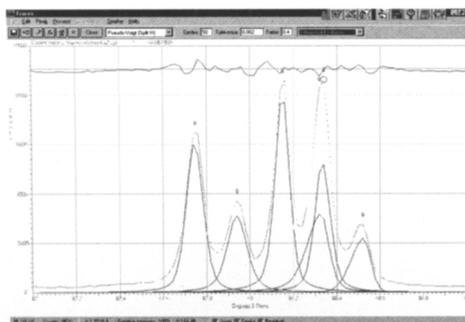
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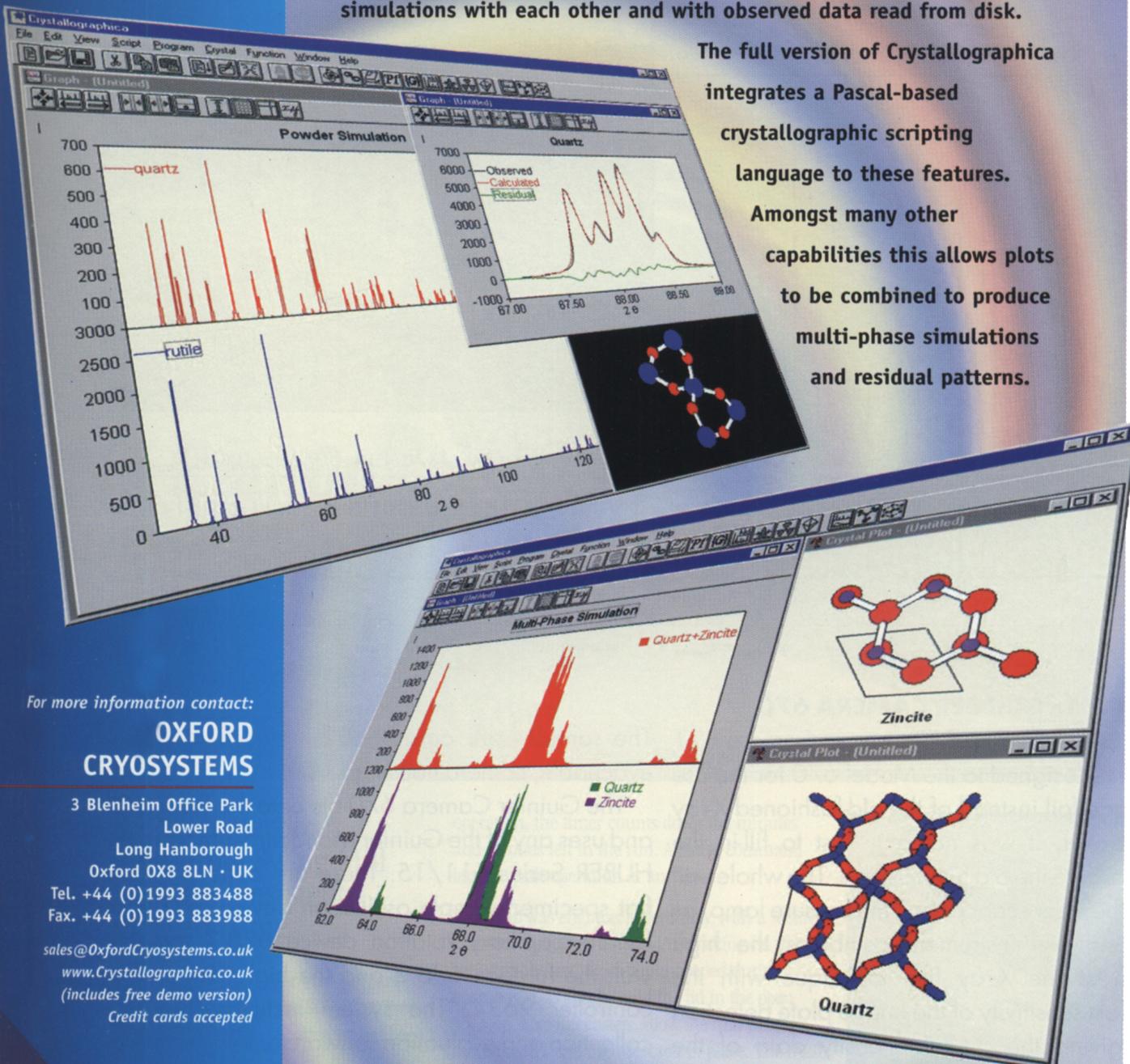
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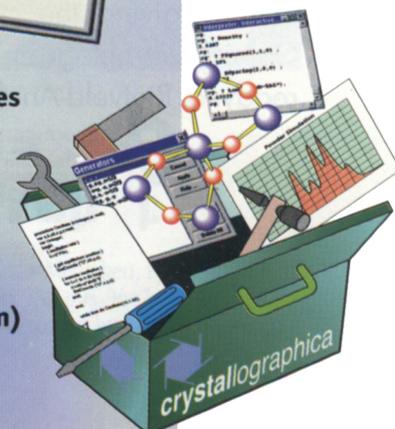
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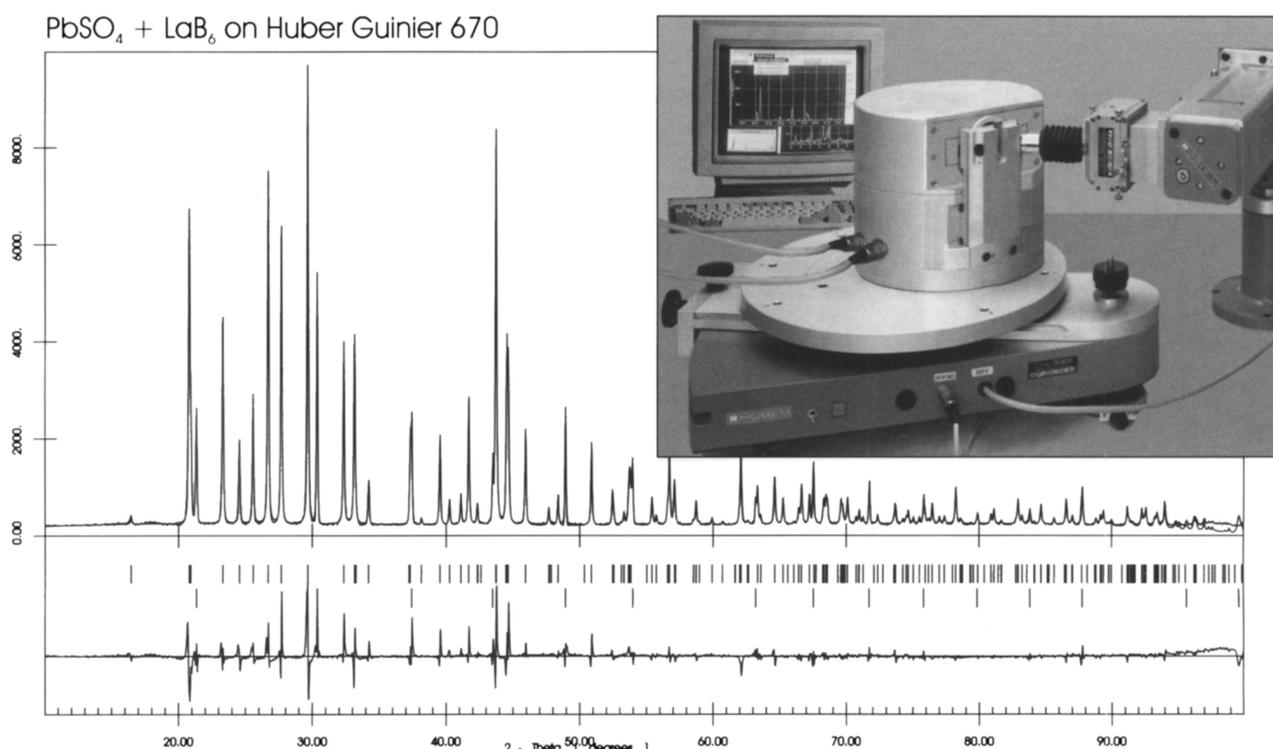


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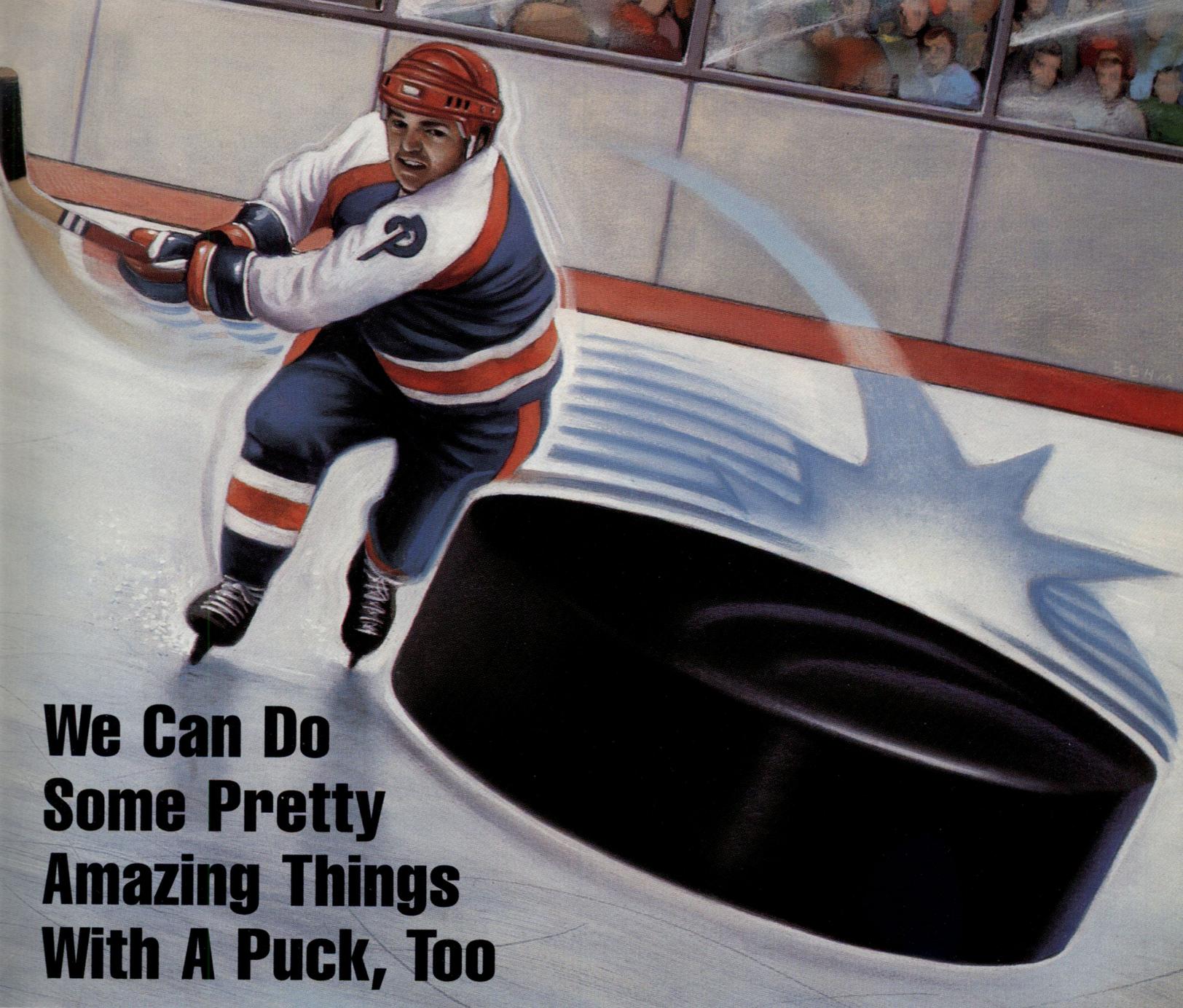
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Periodic Alignment of Goniometers.  
Installation and training.

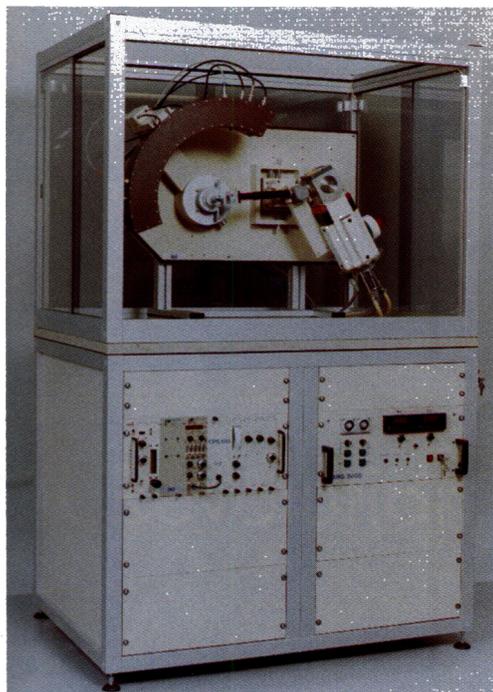
**X-RAY Component Repair:**

Rebuild of Goniometers (includes Intron painting)  
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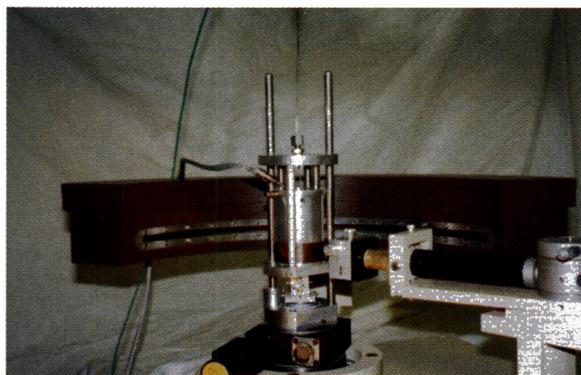
XRD XRF EDS WDS SEM



MPD Multi-Purpose X-ray  
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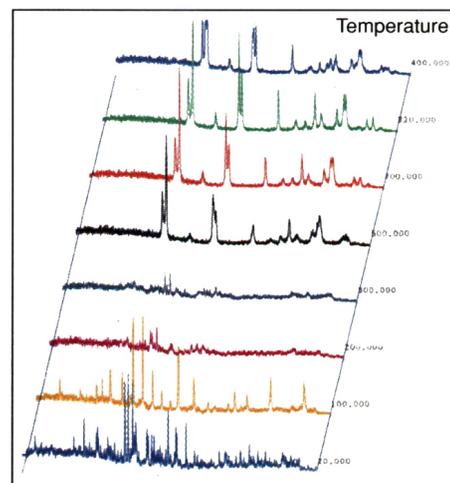
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3D Plot  $2\theta$  vs. Temperature

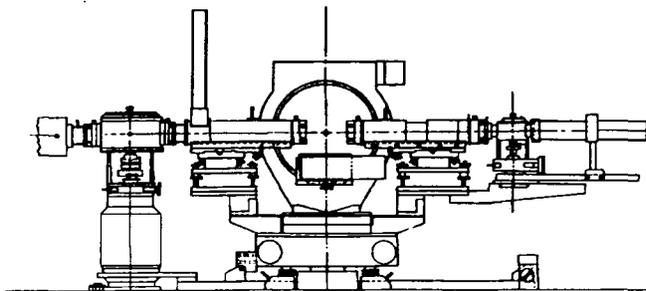
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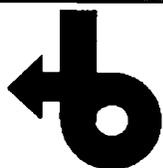
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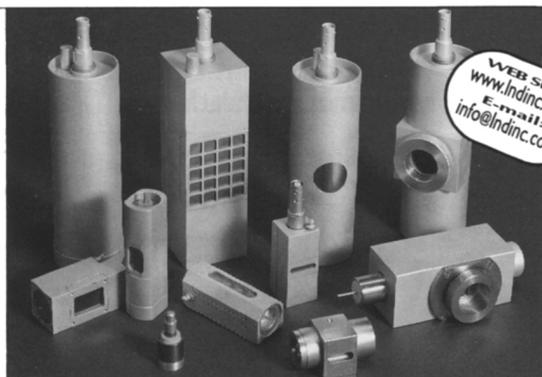
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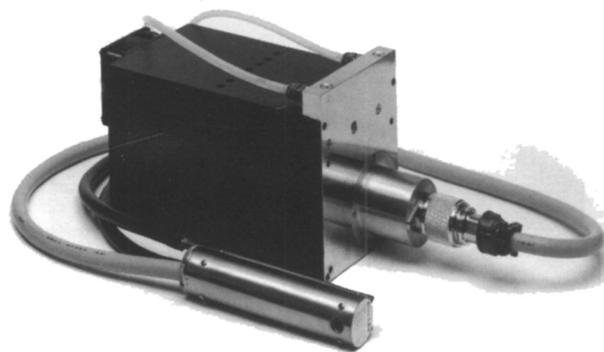
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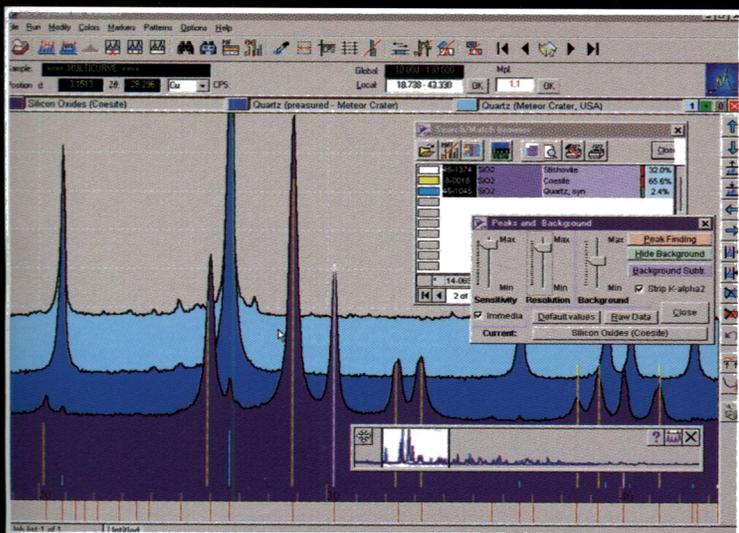
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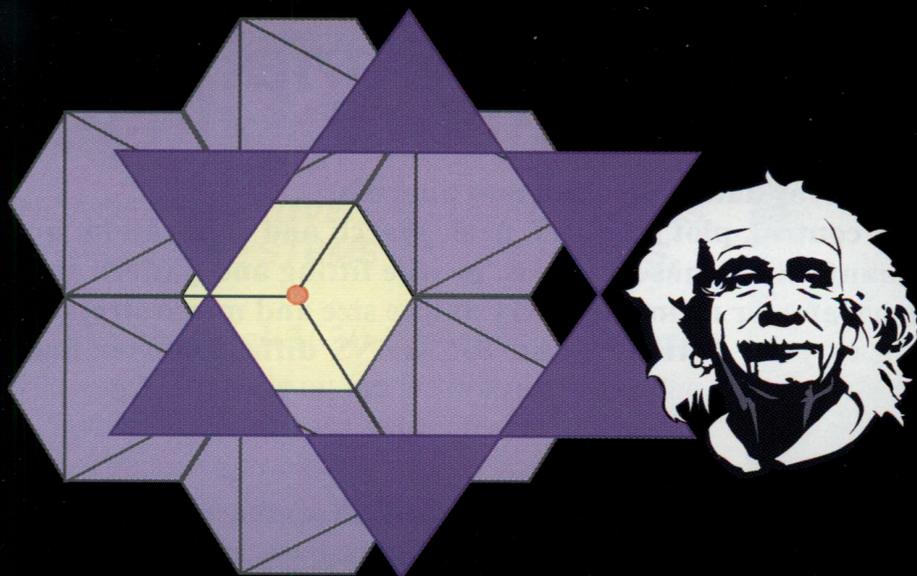
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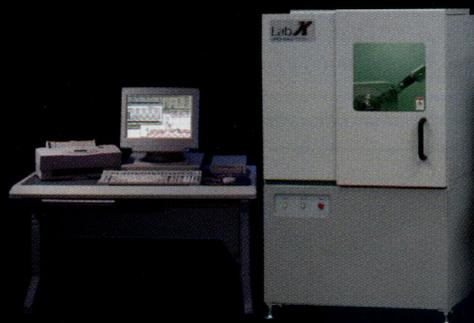
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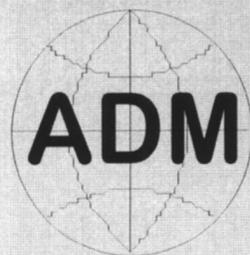
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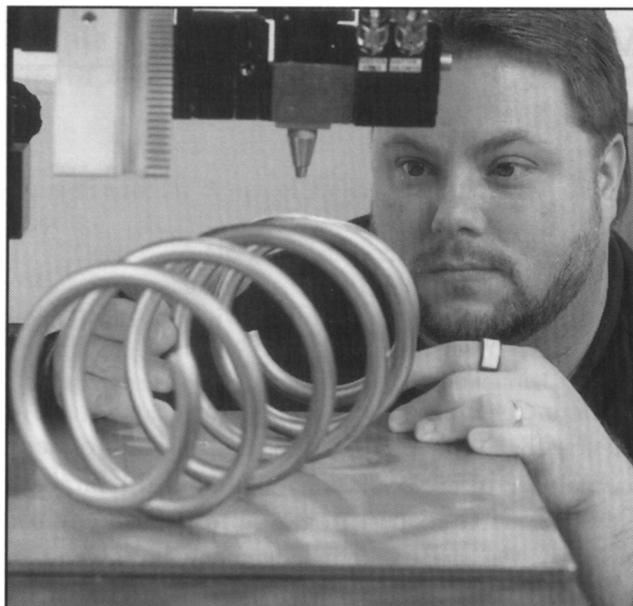
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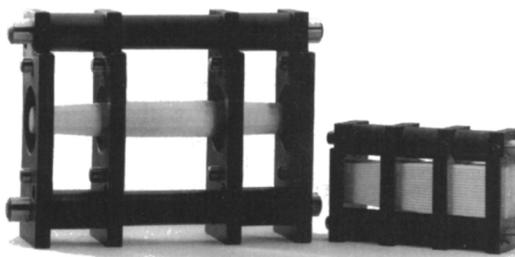
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