

TABLE 12

X RAY DIFFRACTION DATA OF Th_3P_4 CUBIC TYPE
RARE EARTH SESQUISULFIDES

hkl	Intensity	Observed d Values			
		Dy ₂ S ₃	Ho ₂ S ₃	Er ₂ S ₃	Tm ₂ S ₃
211	vs	3.369	3.382	3.349	3.328
220	vw		2.924	2.902	2.887
310	vvs	2.610	2.618	2.596	2.589
321	vs	2.208	2.212	2.146	2.189
400	vw		2.071	2.056	2.050
420	m	1.848	1.851	1.837	1.833
332	w	1.763	1.763	1.754	1.748
422	vw	1.688	1.688	1.679	1.673
510;431	s	1.624	1.620	1.612	1.608
521	vw	1.511	1.509	1.502	1.496
440	vw			1.456	1.449
611;532	s	1.344	1.341	1.334	1.331
620	w	1.309	1.307	1.301	1.298
541	w	1.279	1.275	1.270	1.266
622	vw	1.244			
631	vw			1.212	1.210
444	w	1.196	1.193	1.188	1.185
640	w	1.150	1.146	1.141	1.139
721;633;552	s	1.129	1.124	1.121	1.117
642	vw	1.108	1.104	1.100	1.096
730	vw	1.089			
732;651	vw	1.053	1.050	1.046	1.043
653	w	0.992	0.988	0.985	0.982
822;660	vw	.964	.961	.972	.968
831;750;743	w			.958	.955
752	w	.940	.936	.932	.931
842	w	.905	.902	.899	.897
921;761;655	w	.894	.891	.888	.886
930;851;754	w	.875	.871	.868	.867
932;763	w	.856	.852	.850	.848
10,11;772	w	.821	.818	.816	.814
950;943	w	0.806	.803	.801	.799
10,31;952;965	w		0.788	0.786	0.786