

Table MSA depository 1. A list of interplanar spacings, intensities, and assigned indices for the synthetic $\text{Fe}_2(\text{SO}_4)_3(\text{H}_2\text{O})_5$ and the natural sample studied by Srebrodol'skiy (1975).

synthetic $\text{Fe}_2(\text{SO}_4)_3(\text{H}_2\text{O})_5$ synchrotron ($\lambda = 1.14959 \text{ \AA}$) this work		synthetic $\text{Fe}_2(\text{SO}_4)_3(\text{H}_2\text{O})_5$ in house diffractometer (Cu $K\alpha$) this work		hkl	natural $(\text{Fe,Al})_2(\text{SO}_4)_3(\text{H}_2\text{O})_6$ in house diffractometer (Cr $K\alpha$) Srebrodol'skiy (1975)	
d (\AA)	I_{relative}	d (\AA)	I_{relative}		d (\AA)	I_{relative}
10.595	21	10.53	8	100		
7.661	100	7.62	100	110	7.8	20
					6.86	20
					6.06	20
5.546	27			020	5.55	40
5.511	4	5.52	29	001		
5.229	2			10-1		
4.912	22	4.89	19	120	4.82	30
4.778	4			210		
4.730	58	4.72	8	11-1		
4.607	63	4.59	9	101		
					4.33	30
4.254	3			111		
4.150	31	4.14	4	20-1	4.13	30
3.909	99	3.90	15	021	3.93	30
3.887	8			21-1		
3.829	25			220		
3.804	12	3.81	21	12-1		
3.554	18			201		
3.543	48			121		
3.529	45	3.52	21	300	3.52	100
3.490	39	3.48	29	130		
3.384	14			211	3.38	100
3.363	13	3.35	6	310		
3.322	5			22-1		
3.204	50	3.19	8	30-1		
3.078	3			31-1, 031		
3.018	44	3.01	8	13-1	3.03	50
2.992	15			221		
2.977	9	2.97	5	320		
2.883	4	2.87	1	131	2.85	50
2.783	6			301		
2.774	57	2.76	25	32-1, 040		
2.759	3			23-1		
2.700	12	2.69	2	311		
2.682	8	2.67	5	140		
2.552	5	2.57	2	330		
2.543	3	2.54	2	21-2	2.52	40
2.487	11			321		
2.479	4			12-2		
2.476	5	2.48	2	041		
2.449	3			14-1		
2.388	13			420		
2.375	9	2.38	4	141		
2.364	13			22-2		

Table MSA depository 1. continued

synthetic $\text{Fe}_2(\text{SO}_4)_3(\text{H}_2\text{O})_5$ synchrotron ($\lambda = 1.14959 \text{ \AA}$) this work		synthetic $\text{Fe}_2(\text{SO}_4)_3(\text{H}_2\text{O})_5$ in house diffractometer (Cu $K\alpha$) this work		hkl	natural $(\text{Fe,Al})_2(\text{SO}_4)_3(\text{H}_2\text{O})_6$ in house diffractometer (Cr $K\alpha$) Srebrodol'skiy (1975)	
d (\AA)	I_{relative}	d (\AA)	I_{relative}		d (\AA)	I_{relative}
2.354	13			30-2		
2.333	8	2.33	2	122		
2.303	15	2.30	2	202		
2.254	10	2.25	2	401	2.284	40
2.218	10			13-2		
2.209	9	2.20	2	411, 032		
2.180	10	2.17	4	340		
2.152	10	2.14	4	430		
2.111	6	2.11	2	132		
2.075	6			40-2	2.065	60
2.041	11	2.04	2	15-1		
1.986	9	1.98	2	33-2		
1.954	8	1.95	2	232		
1.902	5			24-2		
1.874	11	1.87	2	44-1	1.872	30
1.820	8	1.81	2	160		
1.794	18	1.79	2	34-2		
1.782	12			521		
1.771	14	1.77	2	242		
1.762	6			12-3		
1.752	17			061		
1.749	6	1.75	3	441		
1.715	8	1.71	1	161		
1.678	15	1.67	3	62-1		
1.662	5			32-3	1.666	20
1.639	8	1.64	1	261		
1.613	6			41-3		
1.602	13			60-2		
1.601	10			36-1		
1.592	6	1.59	2	133, 630	1.597	20
1.588	7			223		
1.566	15	1.56	2	502	1.566	20
1.539	6	1.53	1	361		
1.524	6			24-3		
1.520	6			55-1		
1.515	10			460		
1.509	12	1.51	3	26-2		
1.500	10			162		
1.459	10	1.45	1	720		
1.393	6			10-4		
1.387	11			64-2		
1.386	10			080		
1.363	6			542		
1.332	8			74-1		
1.327	6			181		
1.275	6			66-1		