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TABLE I

Crystal	Mode of Suspension	Orientation in the field.	$ \Delta\chi $	Magnetic Anisotropy $\chi_1 - \chi_2$ $\chi_1 - \chi_3$	$\psi$ <del>measured</del>	$\psi$ <del>calculated</del>
$B_1 = MgSO_4(NH_4)_2SO_4 \cdot 6H_2O$	'b' ax. vert. 'a' " <del>ax.</del> " (001) pl. horiz.	$\theta = +20^\circ$ 'b' axis <sup>normal</sup> $\perp$ to field 'a' " " " " <del>"b" axis <math>\parallel</math> to field</del>	1.24 0.64 0. <del>3</del>	$\chi_1 - \chi_2 = 1.24$ 1.24    0.7 <del>3</del> $\chi_1 - \chi_3 = 0.72$	-3°	<del>-4°</del>
$B_2 = ZnSO_4(NH_4)_2SO_4 \cdot 6H_2O$	'b' ax. vert. 'a' " " " <del>"a" " "</del> (001) pl. horiz.	$\theta = +8^\circ$ 'b' axis <sup>normal</sup> $\perp$ to field 'a' " " " " <del>"b" axis <math>\parallel</math> to field</del>	1.24 0. <del>3</del> 0. <del>3</del>	$\chi_1 - \chi_2 = 1.22$ 1.24    0.84 $\chi_1 - \chi_3 = 0.83$	+9°	+8°

TABLE II

Crystal	Mode of Suspension	Orientation in the field	$\Delta\chi$	Magnetic Anisotropy		$\theta$ measured	$\theta$ calculated
				$\chi_1 - \chi_2$	$\chi_1 - \chi_3$		
A = FeSO <sub>4</sub> (NH <sub>4</sub> ) <sub>2</sub> SO <sub>4</sub> · 6H <sub>2</sub> O	(i) "b" axis vert	$\theta = -36.0$	2380	<del><math>\chi_1 - \chi_2 = 2380</math></del>	<del><math>\chi_1 - \chi_3 = 187</math></del>	+52.8 +53°	+53°
	(ii) (201) pl. vert and "b" axis horiz.	"b" axis along field	2120	$\chi_1 - \chi_2 = 2380$	$\chi_1 - \chi_3 = 187$		
	(iii) (201) pl. horiz.	"b" axis normal to field	113				
A + 1.02 B <sub>1</sub>	"b" axis (i)	$\theta = -35.4$	2340	<del><math>\chi_1 - \chi_2 = 2340</math></del>	<del><math>\chi_1 - \chi_3 = 106</math></del>	+52°	+52°
	(201) pl. vert and "b" axis horiz. (ii)	"b" axis along field	2170	$\chi_1 - \chi_2 = 2340$	$\chi_1 - \chi_3 = 106$		
	(201) pl. horiz. (iii)	"b" axis normal to field	45				
A + 1.83 B <sub>1</sub>	"b" axis (i)	$\theta = -35.0$	2350	<del><math>\chi_1 - \chi_2 = 2350</math></del>	<del><math>\chi_1 - \chi_3 = 98</math></del>	+52°	+51°
	(201) pl. v. and "b" axis (ii)	"b" axis along field	2200	$\chi_1 - \chi_2 = 2350$	$\chi_1 - \chi_3 = 98$		
	(201) pl. h. (iii)	"b" axis normal to field	50				
A + 0.89 B <sub>2</sub>	"b" axis (i)	$\theta = -36.5$	2650	<del><math>\chi_1 - \chi_2 = 2650</math></del>	<del><math>\chi_1 - \chi_3 = 218</math></del>	+53°	54°
	(201) pl. v. and "b" axis (ii)	"b" axis along field	2330	$\chi_1 - \chi_2 = 2650$	$\chi_1 - \chi_3 = 218$		
	(201) pl. h. (iii)	"b" axis normal to field	109				
A + 2.74 B <sub>2</sub>	"b" axis (i)	$\theta = -36.5$	2560	<del><math>\chi_1 - \chi_2 = 2560</math></del>	<del><math>\chi_1 - \chi_3 = 196</math></del>	+53°	+54°
	(201) pl. v. and "b" axis (ii)	"b" axis along field	2260	$\chi_1 - \chi_2 = 2560$	$\chi_1 - \chi_3 = 196$		
	(201) pl. h. (iii)	"b" axis normal to field	92				



TABLE IV

Crystal	Mode of Suspension	Orientation in the field	$\Delta\chi$	Magnetic Anisotropy		# measured	# calculated
				$\chi_1 - \chi_2$	$\chi_1 - \chi_3$		
A = Ni SO <sub>4</sub> · (NH <sub>4</sub> ) <sub>2</sub> SO <sub>4</sub> · 6H <sub>2</sub> O	'b' ax. vert.	$\theta = +34.0$	108	$\chi_1 - \chi_2 = 108$ $\chi_1 - \chi_3 = 100$	$\chi_1 - \chi_2 = 108$ $\chi_1 - \chi_3 = 100$	-17°	-18°
	'a' <del>ax. vert.</del>	'b' axis <sup>normal</sup> to field	65				
	(001) pl. horiz.	'b' axis $\perp$ to field	28				
A + 0.09 B <sub>1</sub>	'b' ax. vert.	$\theta = +32.0$	105	$\chi_1 - \chi_2 = 105$ $\chi_1 - \chi_3 = 99$	$\chi_1 - \chi_2 = 105$ $\chi_1 - \chi_3 = 99$	-15°	-15°
	'a' <del>ax. vert.</del>	'b' axis <sup>normal</sup> to field	68				
	(001) pl. horiz.	'b' axis $\perp$ to field	24				
A + 10.13 B <sub>1</sub>	'b' ax. vert.	$\theta = +33.5$	121	$\chi_1 - \chi_2 = 121$ $\chi_1 - \chi_3 = 109$	$\chi_1 - \chi_2 = 121$ $\chi_1 - \chi_3 = 109$	-16°	-17°
	'a' <del>ax. vert.</del>	'b' axis <sup>normal</sup> to field	71				
	(001) pl. horiz.	'b' axis $\perp$ to field	26				
A + 0.25 B <sub>2</sub>	'b' ax. vert.	$\theta = +32.0$	108	$\chi_1 - \chi_2 = 108$ $\chi_1 - \chi_3 = 100$	$\chi_1 - \chi_2 = 108$ $\chi_1 - \chi_3 = 100$	-15°	-15°
	'a' <del>ax. vert.</del>	'b' axis <sup>normal</sup> to field	69				
	(001) pl. horiz.	'b' axis $\perp$ to field	22				
A + 0.95 B <sub>2</sub>	'b' ax. vert.	$\theta = +33.5$	104	$\chi_1 - \chi_2 = 104$ $\chi_1 - \chi_3 = 99$	$\chi_1 - \chi_2 = 104$ $\chi_1 - \chi_3 = 99$	-12°	-12°
	'a' <del>ax. vert.</del>	'b' axis <sup>normal</sup> to field	75				
	(001) pl. horiz.	'b' axis $\perp$ to field	19				

TABLE V

Crystal	Mode of Suspension	Orientation in the field	$\Delta\chi$	Magnetic Anisotropy <sup>a</sup>		$\psi$ measured	$\psi$ calculated	
				$\chi_1 - \chi_2$	$\chi_1 - \chi_3$			
A = Cu SO <sub>4</sub> (NH <sub>4</sub> ) <sub>2</sub> SO <sub>4</sub> · 6H <sub>2</sub> O	"b" ax. vert.	$\theta = -65^\circ$	309	$\chi_1 - \chi_2 = 309$ $\chi_1 - \chi_3 = 63$	$+81^\circ$	$+81^\circ$		
	"a" <del>ax. vert.</del>	"b" <del>axis</del> <sup>along</sup> field.	194 <del>#</del>				309	63
	(001) pl. horiz.	<del>"a" axis</del> <sup>"a" axis</sup> <del>"b" axis</del> <sup>"b" axis</sup> <del>to field</del> <sup>to field</sup>	11 <del>#</del>				<del>309</del>	<del>63</del>
A + 2.20 B <sub>1</sub>	"b" ax. vert.	$\theta = -67.5^\circ$	290	$\chi_1 - \chi_2 = 290$ $\chi_1 - \chi_3 = 63$	$+84^\circ$	$+84^\circ$		
	"a" <del>ax. vert.</del>	"b" <del>axis</del> <sup>along</sup> field.	183				290	63
	(001) pl. horiz.	<del>"a" axis</del> <sup>"a" axis</sup> <del>"b" axis</del> <sup>"b" axis</sup> <del>to field</del> <sup>to field</sup>	22				<del>290</del>	<del>63</del>
A + 1.96 B <sub>2</sub>	"b" ax. vert.	$\theta = -65.5^\circ$	314	$\chi_1 - \chi_2 = 314$ $\chi_1 - \chi_3 = 69$	$+82^\circ$	$+81^\circ$		
	"a" <del>ax. vert.</del>	"b" <del>axis</del> <sup>along</sup> field.	190 <del>#</del>				314	69
	(001) pl. horiz.	<del>"a" axis</del> <sup>"a" axis</sup> <del>"b" axis</del> <sup>"b" axis</sup> <del>to field</del> <sup>to field</sup>	14 <del>#</del>				<del>314</del>	<del>69</del>
A + 6.49 B <sub>2</sub>	"b" ax. vert.	$\theta = -66.0^\circ$	302	$\chi_1 - \chi_2 = 302$ $\chi_1 - \chi_3 = 67$	$+82^\circ$	$+82^\circ$		
	"a" <del>ax. vert.</del>	"b" <del>axis</del> <sup>along</sup> field.	183				302	67
	(001) pl. horiz.	<del>"a" axis</del> <sup>"a" axis</sup> <del>"b" axis</del> <sup>"b" axis</sup> <del>to field</del> <sup>to field</sup>	16 <del>#</del>				<del>302</del>	<del>67</del>