

Table 1. MAGNETIC SUSCEPTIBILITIES OF MINERALS (in alphabetic order)
 by Sam Rosenblum and I. K. Brownfield
 (side tilt: 15 degrees; size range: 125-150 micrometers)
 (* = often locked with other species; dc=depends on chemistry)

MINERAL	TOTAL RANGE (AMPS)	BEST RANGE (AMPS)	NO.
Abernathyite	>1.70	>1.70	1
Acmite [=aegirine]	.10-.60	.30-.40	5
Acmite-augite	.10-.60	.30-.40	3
Actinolite	.30-.90	.40-.80 dc	8
Aeschynite	.50-1.0	.70-.80	2
Albite	>1.70	>1.70	1
Allanite	.20-.80	.40-.50	7
Almandite	.10-.60	.20-.40	13
Alunite	>1.70	>1.70	1
Amazonite	>1.70	>1.70	1
Amblygonite	>1.70	>1.70	3
Amorphous Mn oxide	.20-.90	.60-.80	2
Analcite	.10->1.70	.70-1.20 dc	1
Anatase	>1.70	>1.70	1
Andalusite	>1.70	>1.70	2
Andradite	.10-.80	.30-.50	9
Anhydrite	>1.70	>1.70	2
Ankerite	.30-.70	.40-.50	1
Annite	.10-.50	.30-.40	2
Anthophyllite	.50->1.70	.60-1.20 dc	5
Antigorite	.50->1.70	.90->1.70 dc	6
Antlerite	.40-.90	.60-.70	1
Apatite	1.40->1.70	>1.70	8
Apophyllite	>1.70	>1.70	1
Aragonite	>1.70	>1.70	2
Arsenopyrite	1.00->1.70	>1.70	3
Astrophyllite	.10-.50	.30-.40	3
Atacamite	.40-1.00	.60-.80	4
Augite	.20-1.30	.40-.90 dc	4
Azurite	.20-1.00	.50-.70	3
Babingtonite	.30-.40	.30-.40	1
Baddeleyite	>1.70	>1.70	4
Barite	>1.70	>1.70	6
Barrandite	.30-.60	.40	1
Bastnaesite	.50-1.00	.70-.90	4
Benitoite	>1.70	>1.70	1
Bentonite	.50-1.30	.80-1.00	2
Beryl	>1.70	>1.70	6
Betafite	.40-1.10	.70-.90	1
Beusite	.10-.40	.20-.25	1
Biotite	.20-1.20	.30-.80 dc	18
Bismuth	>1.70	>1.70	1
Bismuthinite	>1.70	>1.70	2
Bismutite	>1.70	>1.70	3
Bornite	.30-1.10	.60-.90	4

MINERAL	TOTAL RANGE (AMPS)	BEST RANGE (AMPS)	NO.
Boulangerite	>1.70	>1.70	5
Bournonite	>1.70	>1.70	4
Brannerite (metamict)	.70-1.20	.80-1.00	1
Braunite	.025-.50	.20	2
Breithauptite	>1.70	>1.70	2
Britholite-(Y)	.20-.50	.40	1
Brochantite	.40-.90	.60-.80	3
Brookite	.70->1.70	>1.70	2
Bustamite	.10-.50	.30-.40	2
Calaverite	>1.70	>1.70	4
Calcite	>1.70	>1.70	8
Calcite-(Mn)	.50-1.70	.90-1.10	1
Calomel	>1.70	>1.70	1
Carbon [coal]	>1.70	>1.70	1
Cassiterite	>1.70	>1.70	6
Celestite	>1.70	>1.70	3
Cerargyrite	>1.70	>1.70	3
Cerite	.30-1.00	.60-.70	5
Cerussite	>1.70	>1.70	3
Chalcanthite	.60-1.20	.80-1.00	3
Chalcocite	>1.70	>1.70	3
Chalcopyrite	.30-1.70	.70-1.30 dc	8
Chalcotrichite	>1.70	>1.70	1
Chamosite	.10-.80	.30	2
Chevkinite	.10-.60	.40-.50	1
Chlorite	.10-.90	.20-.50	9
Chloritoid	.20-.50	.30-.40	3
Chondrodite	.30-.90	.60-.70	1
Chromite	.05-.50	.30-.40	9
Chrysoberyl	.60-1.20	.80-1.00	2
Chrysocolla	.50-1.30	.80-1.00	4
Chrysolite (Fo88)	.30-.70	.50	1
Cinnabar	>1.70	>1.70	4
Clinochlore	.20-.80	.20-.60 dc	3
Clinohypersthene	.10-.70	.30-.40	1
Clinoptilolite	>1.70	>1.70	1
Clinosafflorite	.30->1.70	>1.70	1
Clinozoisite	.30-1.30	.50-1.00 dc	7
Cobaltite	>1.70	>1.70	1
Colemanite	>1.70	>1.70	2
Colusite	.50->1.70	>1.70	1
Conicalcrite	.60-1.70	.80-1.00	1
Corundum	>1.70	>1.70	3
Covellite	.80->1.70	>1.70	2
Crandallite	.60-1.40	1.00-1.10	1
Cryptomelane	.30-.60	.40	1
Cummingtonite	.10-.50	.30	1
Cyrtolite	.30->1.70	.70-1.70 dc	8
Datolite	>1.70	>1.70	1
Davidite	.10-.60	.30-.50	3

MINERAL	TOTAL RANGE (AMPS)	BEST RANGE (AMPS)	NO.
Descloizite	>1.70	>1.70	1
Digenite	1.00->1.70	>1.70	2
Diopside	.30-.80	.40-.60	4
Diopside-(Cr)	.40->1.70	.80-1.70 dc	2
Dioptase	.40-1.10	.70-.80	3
Dolomite	>1.70	>1.70	4
Domeykite	>1.70	>1.70	1
Dravite	.60-1.00	.60-.70	1
Dravite (brown)	.80->1.70	1.40-1.50	1
Dumortierite	>1.70	>1.70	2
Edenite	.20-.90	.40-.80 dc	2
Elbaite (blue-green)	.50-1.70	.80-1.70 dc	3
Elbaite (pinkish to red)	>1.70	>1.70	9
Empressite	>1.70	>1.70	1
Enargite	>1.70	>1.70	3
Enstatite	1.00->1.70	1.30-1.50	1
Enstatite-(Fe)	.10-1.00	.60-.80	4
Epidote	.30-1.00	.40-.70	10
Euxenite	.10-.90	.50-.60	4
Fayalite	.10-.60	.20-.30	2
Ferberite	.20-.50	.40	4
Fergusonite	.30-.80	.40-.60	4
Ferrimolybdite	.10-.80	.40-.50	2
Ferrisicklerite	.20-.60	.30-.40	3
Ferroaugite	.10-.40	.20-.30	1
Ferroaxinite	.40-.70	.60	1
Ferrodolomite	.20-1.30	.40-1.10 dc	8
Ferromanganocolumbite	.10-.70	.40-.50	13
Ferrosalite	.10-.90	.60-.80	1
Fluocerite-(La)	.40-.90	.60-.70	1
Fluorite	.90->1.70	>1.70	5
Forsterite	.40-1.20	.50-1.00 dc	5
Franklinite	.01-.40	.10-.20	7
Freibergite	.80->1.70	1.00->1.70 dc	4
Freirinite	.50-1.10	.80-.90	1
Frondelite	.20-.50	.30-.40	1
Gadolinite	.20-.60	.20-.40	4
Gahnite	.20-.70	.40-.50	2
Galena	>1.70	>1.70	9
Gaylussite	>1.70	>1.70	1
Geikielite	.025-.60	.10-.30	1
Gersdorffite	>1.70	>1.70	1
Glauconite	.20-.60	.40	3
Glaucophanite	.30-.70	.50-.60	1
Gmelinite	>1.70	>1.70	1
Goethite	.20-.70	.40-.50	6
Gold	>1.70	>1.70	4
Gorceixite-goyazite	>1.70	>1.70	1
Goslarite	.90->1.70	1.10-1.20	1
Graphite	.50->1.70	>1.70	2

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Greenockite	>1.70	>1.70	1
Griphite	.20-.50	.30	1
Grossularite	.30-1.20	.60-.90	3
Grunerite	.20-.70	.30-.60	2
Gunningite	.90->1.70	1.10-1.20	1
Gypsum	>1.70	>1.70	4
Halite	>1.70	>1.70	2
Halloysite	>1.70	>1.70	2
Halotrichite	>1.70	>1.70	1
Hanksite	>1.70	>1.70	1
Hardystonite	.20-.50	.30	2
Harmotome	>1.70	>1.70	1
Hausmannite	.10-.60	.30-.40	2
Hauyne	1.00->1.70	>1.70	1
Hectorite	>1.70	>1.70	1
Hedenbergite	.10-.50	.20-.40	6
Helvite	.10-.50	.30-.40	3
Hematite *	.025-.50	.10-.30	11
Hemimorphite	>1.70	>1.70	4
Hercynite	.10-.50	.30-.40	2
Heterosite	.20-.80	.30-.40	3
Heulandite	>1.70	>1.70	2
Hewittite	.40->1.70	>1.70	1
Hexagonite	1.20->1.70	>1.70	1
Hexahydrite	.50->1.70	1.20	1
Hornblende	.10-.90	.30-.60	12
Howlite	>1.70	>1.70	1
Huanghoite	.50-1.00	.70-.80	1
Huebnerite	.20-.60	.30-.40	5
Humite	.50-.90	.60-.70	1
Hydrohetaerolite	.20-.60	.40	1
Hydrozincite	>1.70	>1.70	1
Hypersthene	.20-.60	.40	3
Illite	.60-1.10	.80-.90	1
Ilmenite	.025-.40	.20-.30	8
Ilmenorutile	.30-.80	.50-.60	1
Ilsemanite	.40-.90	.50-.70	1
Ilvaite	.10-.50	.30	5
Inesite	.10-.60	.30	1
Jamesonite	.60-1.30	.90-1.00	1
Jarosite	.20-.60	.40-.50	3
Jeffersonite	.10-.50	.30-.40	3
Jenkinsite	.20-.70	.50	1
Johannite	.50->1.70	1.10-1.40	2
Johannsenite	.20-.50	.30-.40	7
Jordisite	.30->1.70	.50-1.00 dc	2
Kaolinite	>1.70	>1.70	1
Kentrolite	.30-.70	.50	1
Kimzeyite	.10-.90	.40-.50	1
Kleinite	>1.70	>1.70	1

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Krennerite	>1.70	>1.70	1
Kyanite	>1.70	>1.70	2
Labradorite	>1.70	>1.70	1
Langbeinite	>1.70	>1.70	1
Lazurite [=hauyne-(S)]	>1.70	>1.70	3
Lepidolite	>1.70	>1.70	3
Liebigite	.50->1.70	>1.70	1
Linarite	.70->1.70	1.00-1.20	2
Lithiophorite	>10-.60	.40	1
Livingstonite	>1.70	>1.70	1
Loellingite	>1.70	>1.70	3
Magadiite	>1.70	>1.70	1
Magnesite	>1.70	>1.70	2
Magnetite *	<.01-.05	.01	6
Malachite	.20-1.40	.60-.80	7
Malacon	.10->1.70	.90->1.70 dc	9
Manganite	.20-.90	.40-.60	4
Manganotalite	.10-.70	.30-.50	2
Manganpyrosmalite	.10-.40	.20	1
Mansfieldite	.30->1.70	>1.70	1
Marcasite	.30->1.70	.60-1.00 dc	2
Mawsonite	.40-1.30	.80-1.10	1
Melanterite	.20-.50	.30	1
Melilite	.60->1.70	.80-.90	1
Melonite	>1.70	>1.70	1
Mesolite	>1.70	>1.70	1
Meta-autunite	>1.70	>1.70	1
Metacinnabar	.30->1.70	>1.70	1
Metatorbernite	1.10->1.70	>1.70	1
Metavariscite	>1.70	>1.70	1
Metavivianite	.10-.40	.30	1
Microcline	>1.70	>1.70	4
Microlite	.50->1.70	>1.70	2
Mimetite	>1.70	>1.70	2
Molybdenite	>1.70	>1.70	4
Monazite	.30-1.00	.50-.80	8
Monticellite	.50-1.10	.70-.90	1
Montroseite	.40-1.10	.60-.80	1
Montroydite	>1.70	>1.70	1
Mosesite	>1.70	>1.70	1
Muscovite	.30-1.40	.70-1.30 dc	9
Muscovite-(Cr)	>1.70	>1.70	1
Muscovite-(Fe)	.30-1.00	.60	2
Muscovite-(Li)	.80->1.70	.90->1.70 dc	5
Nahcolite	>1.70	>1.70	2
Natrolite	>1.70	>1.70	2
Nephrite [=actinolite]	.30-1.20	.80-.90	1
Nepouite	.20-.70	.40-.50	1
Niccolite	>1.70	>1.70	6
Ningyoite	.30-.90	.60	1

MINERAL	TOTAL RANGE (AMPS)	BEST RANGE (AMPS)	NO.
Oligoclase	.50->1.70	>1.70	1
Olivenite	.60-1.10	.80-.90	2
Orpiment	>1.70	>1.70	1
Orthoclase	>1.70	>1.70	2
Paragonite	.10->1.70	1.00-1.30	1
Parisite	.50-.90	.70	1
Patronite	.50->1.70	>1.70	1
Pearceite	>1.70	>1.70	1
Pectolite	>1.70	>1.70	2
Pentlandite	<.01-.30	.01	2
Perovskite	>1.70	>1.70	3
Perthite	>1.70	>1.70	2
Petalite	>1.70	>1.70	1
Petzite	>1.70	>1.70	2
Phosgenite	>1.70	>1.70	2
Picromerite	>1.70	>1.70	1
Picrophengite	.30-1.00	.60-.70	1
Piedmontite	.20-.70	.50-.60	2
Pigeonite	.10-1.00	.50-.60	1
Pitchblende	.40-1.00	.50-.90 dc	2
Plumbojarosite	.30-1.00	.40-.60	1
Pollucite	>1.70	>1.70	1
Polycrase	.10-.80	.50-.60	1
Polyhalite	>1.70	>1.70	1
Prehnite	.40->1.70	.60->1.70 dc	3
Prochlorite	.30-.80	.40-.60	3
Proustite	>1.70	>1.70	1
Psilomelane	.10-.70	.20-.50	3
Pumpellyite	.50-1.10	.80-.90	1
Purpurite	.10-.60	.30-.40	2
Pyrargyrite	>1.70	>1.70	2
Pyrite *	>1.70	>1.70	9
Pyrochlore	.10->1.70	.90->1.70 dc	2
Pyrolusite	.10-.70	.40-.50	5
Pyromorphite	>1.70	>1.70	3
Pyrope	.20-.80	.50-.60	3
Pyrophyllite	>1.70	>1.70	2
Pyrrhotite	<.01-.70	.01-.05	7
Quartz *	>1.70	>1.70	10
Realgar	>1.70	>1.70	3
Renierite	.05-.60	.10-.30	1
Rhodochrosite	.10-.60	.20-.40	5
Rhodonite	.05-.70	.20-.30	4
Rosasite	.50-1.10	.80-1.00	1
Rutile	.80->1.70	>1.70	10
Safflorite	>1.70	>1.70	1
Saleeite	.80-1.30	.90-1.10	1
Samarskite	.10-.80	.30-.60	5
Sanidine	>1.70	>1.70	2
Sapphirine	.80->1.70	1.40->1.70	2

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Scapolite	>1.70	>1.70	2
Scheelite	>1.70	>1.70	4
Schorlite	.20-.80	.40-.60	7
Scorodite	.10-.50	.30	1
Searlesite	>1.70	>1.70	1
Sericite	.50-.90	.60-.70	1
Shattuckite	.40-1.10	.70-.90	1
Shortite	>1.70	>1.70	2
Siderite	.10-.50	.20-.30	17
Siderophyllite	.10-.50	.20-.30	2
Siegenite	>1.70	>1.70	1
Sillimanite	>1.70	>1.70	2
Silver	>1.70	>1.70	1
Skutterudite	>1.70	>1.70	3
Skutterudite-(Ni)	.50->1.70	>1.70	1
Smithsonite	>1.70	>1.70	3
Sodalite	>1.70	>1.70	4
Spessartite	.10-.40	.30	5
Sphalerite	1.30->1.70	>1.70	8
Sphalerite-(Fe)	.20-1.20	.60-1.00 dc	6
Spinel	.10-1.10	.50-1.00 dc	3
Spodumene	>1.70	>1.70	3
Stannite	.30-1.00	.50-.70	3
Staurolite	.10-.90	.50-.60	6
Stibnite	>1.70	>1.70	6
Stichtite	.30-.90	.50-.70	2
Stilbite	>1.70	>1.70	3
Strengite	.10-.50	.30	1
Strontianite	>1.70	>1.70	1
Sulfur	>1.70	>1.70	3
Sylvanite	>1.70	>1.70	3
Sylvite	>1.70	>1.70	1
Talc	1.00->1.70	1.30->1.70 dc	4
Tantalite	.10-.70	.30-.50	3
Tapiolite	.30-.80	.40-.60	2
Teallite	.50->1.70	1.00-1.30	1
Tellurium	>1.70	>1.70	1
Tennantite	.70->1.70	>1.70	3
Tephroite	.10-.50	.20-.30	3
Tetradymite	>1.70	>1.70	1
Tetrahedrite	>1.70	>1.70	5
Tetrahedrite-(Ag)	.50->1.70	>1.70	6
Thaumasite	>1.70	>1.70	1
Thenardite	>1.70	>1.70	2
Thorite	.40-1.30	.70-1.00	2
Thortveitite	.60-1.00	.80-.90	1
Thulite	>1.70	>1.70	1
Titanite [=sphene]	.70->1.70	.80->1.70 dc	4
Topaz	>1.70	>1.70	3
Tremolite	>1.70	>1.70	3

MINERAL	TOTAL RANGE (AMPS)	BEST RANGE (AMPS)	NO.
Tremolite-actinolite	.50-1.30	.80-1.20 dc	5
Triphylite	.10-.50	.20-.40	3
Triplite	.10-.60	.20-.50	4
Triploidite	.20-.50	.30-.40	1
Turquoise	.50->1.70	>1.70	6
Tyuyamunite	>1.70	>1.70	2
Ulexite	>1.70	>1.70	2
Ullmannite	>1.70	>1.70	1
Uraninite	.20->1.70	.50->1.70 dc	4
Uvite	.20-1.20	.60-.90	3
Vanadinite	>1.70	>1.70	2
Variscite	>1.70	>1.70	2
Vesuvianite	.30->1.70	.70-1.10 dc	7
Violarite	.01-.80	.20-.30	1
Vivianite	.10-.50	.20-.30	3
Vonsenite	<.01-.60	.20-.30	3
Wavellite	>1.70	>1.70	1
Wernerite	>1.70	>1.70	3
Willemite	.10->1.70	.30-1.10 dc	7
Witherite	>1.70	>1.70	1
Woehlerite	.40-1.40	.90-1.10	1
Wolframite	.10-.60	.40-.50	4
Wollastonite	>1.70	>1.70	4
Wurtzite	.30->1.70	.40->1.70 dc	4
Xenotime	.30-.70	.40-.50	3
Zeunerite	>1.70	>1.70	1
Zincite	.10->1.70	.50->1.70 dc	4
Zinkenite	>1.70	>1.70	1
Zinnwaldite	.30-.70	.40-.50	3
Zippeite	>1.70	>1.70	1
Zircon	>1.70	>1.70	5
Zoisite	.60->1.70	1.10->1.70 dc	6
Zwieselite	.10-.40	.20-.30	1