

Supplementary Material for:

Enhanced anomalous Nernst effects in ferromagnetic materials driven by Weyl nodes

by

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N	Compound	SPG	σ_x [$\frac{S}{cm}$]	α_x [$\frac{A}{m \cdot K}$]	σ_z [$\frac{S}{cm}$]	α_z [$\frac{A}{m \cdot K}$]	Literature σ_z [$\frac{S}{cm}$]	Literature α_z [$\frac{A}{m \cdot K}$]	Anisotropy in AHC	Anisotropy in ANC
1	Cr ₃ Te ₄	12	27.58	1.06	315.96	0.52	-	0.60 at 500K [1]	0.09	2.05
2	Te ₁₆ Cr ₁₄	12	441.73	-1.29	291.11	-1.00	-	-	1.52	1.28
3	Se ₁₆ Cr ₁₄	12	240.75	0.22	146.16	-1.40	-	-	1.65	-0.16
4	Fe ₃ Se ₄	12	114.49	-1.47	469.53	0.04	-	1.48 at 500K [1]	0.24	-33.39
5	Cr ₃ Se ₄	12	301.94	0.87	-36.22	0.36	-	0.58 at 500K [1]	-8.34	2.46
6	Hf ₂ Co ₇	12	817.75	0.37	402.61	-0.14	-	-	2.03	-2.65
7	Mn ₆ As ₄	12	820.61	-0.03	373.57	2.46	-	-	2.20	-0.01
8	K ₄ Mn ₄ F ₁₆	14	0.00	0.00	-0.00	-0.00	-	-	-0.54	-0.24
9	C ₄ Fe ₁₀	15	703.86	-1.96	554.15	0.56	-	-	1.27	-3.48
10	Ba ₂ V ₂ S ₆	20	67.11	0.29	-12.88	0.12	-	-	-5.21	2.34
11	Se ₈ Ag ₄ Ge ₂ Mn ₂	31	-0.61	-0.02	7.70	-0.11	-	-	-0.08	0.15
12	Co ₂ Nb ₁ Sn ₁	51	-15.15	-0.59	91.57	0.17	-	1.76 at 500K [1]	-0.17	-3.41
13	C ₈ N ₁₂ Co ₂	58	18.70	-0.60	20.68	0.19	-	-	0.90	-3.13
14	C ₈ N ₁₂ Ni ₂	58	-0.06	-0.04	0.01	0.00	-	-	-9.30	-14.21
15	P ₄ Mn ₄	62	154.64	-0.63	160.07	-1.58	-	-	0.97	0.40
16	Mn ₄ Co ₄ Ge ₄	62	155.18	-0.85	113.56	-0.27	-	-	1.37	3.19
17	Mn ₄ Co ₄ Si ₄	62	6.31	0.79	-14.53	0.74	-	-	-0.43	1.07
18	Fe ₁₂ C ₄	62	432.26	0.82	690.77	0.67	-	-	0.63	1.22
19	Mn ₄ Co ₄ P ₄	62	408.78	0.39	-45.07	1.11	-	-	-9.07	0.35
20	Si ₄ Mn ₄ Ni ₄	62	116.73	0.43	451.49	0.61	-	-	0.26	0.71
21	Cr ₄ Ni ₄ P ₄	62	78.51	-0.24	237.27	0.14	-	-	0.33	-1.64
22	B ₄ Fe ₄	62	78.15	2.12	31.24	0.63	-	-	2.50	3.38
23	Fe ₄ Co ₄ P ₄	62	329.66	0.72	26.17	-0.08	-	-	12.60	-9.20
24	P ₄ Fe ₄	62	0.46	0.16	-48.42	-0.38	-	-	-0.01	-0.42
25	Fe ₁₂ B ₄	62	924.23	-2.96	522.07	-1.72	-	-	1.77	1.72
26	Si ₄ S ₁₆ Mn ₈	62	0.01	-0.04	0.03	-0.14	-	-	0.31	0.31
27	F ₈ K ₄ Cu ₂	64	0.06	-0.00	0.05	-0.00	-	-	1.13	0.32
28	Mn ₃ Pd ₅	65	223.49	0.19	155.85	0.17	-	-	1.43	1.12
29	Mn ₁₀ Ge ₄	72	791.05	1.77	185.03	1.52	-	-	4.28	1.17
30	P ₄ Fe ₁₂	82	238.85	-1.39	276.83	-1.63	-54 [2]	-1.32 at 300K [2]	0.86	0.85
31	Ni ₁₂ P ₄	82	12.64	0.24	-7.57	-0.02	-	-	-1.67	-10.04
32	Mn ₁ Au ₄	87	272.27	0.24	154.49	0.40	-	0.33 at 500K [1]	1.76	0.61
33	V ₁ Au ₄	87	1152.27	3.13	1036.60	1.11	-	-	1.11	2.83
34	Cu ₄ Fe ₄ Se ₈	112	515.61	-0.77	761.76	-3.62	-	-	0.68	0.21
35	Fe ₁ Pt ₁	123	440.96	-0.71	861.79	-0.60	818 [3]	1.35 at 500K [1]	0.51	1.18
36	Pt ₁ Cr ₁	123	403.08	-0.29	-105.21	0.91	-	-	-3.83	-0.32
37	Fe ₂ Ni ₂	123	313.37	0.01	153.52	-0.29	-	-	2.04	-0.05
38	Co ₂ Pt ₂	123	233.05	-4.69	79.55	-2.35	-	-	2.93	2.00
39	Fe ₂ Pd ₂	123	122.29	-0.09	290.13	-0.21	133 [3]	-	0.42	0.42
40	Mn ₄ Ga ₁₀	127	294.98	0.09	345.73	1.04	-	-	0.85	0.08
41	Rh ₁₀ Sc ₄ B ₄ Fe ₂	127	-14.85	1.23	83.92	0.05	-	-	-0.18	22.55
42	Mn ₄ Sb ₂	129	440.31	2.25	445.24	1.86	-	-	0.99	1.21
43	Al ₂ Mn ₂ Ge ₂	129	121.35	0.69	62.23	0.18	-	-	1.95	3.80
44	Si ₂ Mn ₂ Y ₂	129	-20.19	-0.84	223.91	-0.16	-	-	-0.09	5.11
45	Al ₈ Fe ₄ Y ₁	139	36.33	-3.13	327.58	-0.11	-	-	0.11	27.92
46	Y ₂ Fe ₂₄ N ₂	139	106.23	3.45	29.26	0.76	-	-	3.63	4.56

47	Tl ₂ Cu ₄ Se ₄	139	-4.99	-0.03	-1.97	-0.04	-	-	2.54	0.65
48	Rb ₂ Cr ₄ Cl ₄	139	0.15	-0.00	-7.57	-0.05	-	0.90 at 500K [1]	-0.02	0.00
49	S ₂ Co ₂ Tl ₁	139	43.58	-0.27	-200.52	-0.27	-	0.78 at 500K [1]	-0.22	1.01
50	Fe ₈ W ₈ Fe ₈ Y ₂	139	936.06	-0.72	316.07	-1.97	-	-	2.96	0.37
51	Co ₁ Sn ₁ Rh ₂	139	311.28	1.45	337.86	1.13	-	-	0.92	1.28
52	Fe ₁ Sn ₁ Rh ₂	139	-204.19	-1.23	436.68	0.48	-	-	-0.47	-2.58
53	V ₁ Pt ₃	139	314.51	-0.31	-292.64	1.27	900 [4]	7.02 at 500K [1]	-1.07	-0.25
54	Mn ₂ Ge ₂ Y ₁	139	83.68	0.27	266.29	0.25	-	0.05 at 500K [1]	0.31	1.10
55	Be ₁₂ Cr ₁	139	25.24	0.38	24.54	0.07	-	-	1.03	5.36
56	Rh ₄ Co ₂ Sb ₂	139	217.67	-0.31	87.49	-0.92	-	-	2.49	0.34
57	Rh ₄ Fe ₂ Sb ₂	139	124.62	-0.32	81.72	-1.10	-	-	1.53	0.29
58	K ₁ Co ₂ Se ₂	139	168.66	-0.08	-180.69	-0.28	-	0.56 at 500K [1]	-0.93	0.29
59	Mn ₁ Sb ₁ Rh ₂	139	245.36	-0.52	4.60	0.73	4 [2]	2.62 at 300K [2]	53.32	-0.71
60	Rb ₂ Cu ₁ F ₄	139	-1.35	0.00	-1.12	0.00	-	-	1.21	0.45
61	Se ₄ Co ₄ Tl ₂	139	106.36	0.00	-148.57	-1.33	-	-	-0.72	-0.00
62	Fe ₂ Ge ₄	140	256.17	0.02	304.81	0.39	-	-	0.84	0.04
63	Co ₄ B ₂	140	703.07	-0.15	581.86	1.23	-	-	1.21	-0.12
64	Fe ₄ B ₂	140	414.57	-0.84	483.77	-1.49	-	-	0.86	0.57
65	Te ₆ Cr ₂ Ge ₂	148	0.00	0.02	-0.00	-0.02	-	-	-0.49	-0.77
66	Si ₂ Cr ₂ Te ₆	148	-0.00	-0.02	-0.00	-0.01	-	-	1.03	2.65
67	F ₆ V ₁ Nb ₁	148	-2.75	-0.07	24.14	0.75	-	0.05 at 500K [1]	-0.11	-0.09
68	Ni ₁ Pt ₁ F ₆	148	-0.10	-0.00	-0.06	0.03	-	0.23 at 500K [1]	1.72	-0.07
69	F ₆ Pd ₁ Pt ₁	148	0.01	-0.11	6.49	-1.04	-	0.48 at 500K [1]	0.00	0.10
70	Mn ₁ Zn ₁ F ₆	148	0.00	-0.00	-0.04	0.03	-	-	-0.00	-0.00
71	S ₈ V ₄ Ga ₁	160	4.02	-0.02	3.93	-0.03	-	-	1.02	0.70
72	Ga ₁ Mo ₄ S ₈	160	0.05	0.01	0.37	-0.02	-	-	0.12	-0.66
73	Ga ₁ Mo ₄ Se ₈	160	-0.07	-0.00	0.26	-0.01	-	-	-0.28	0.17
74	N ₃ Fe ₆	162	436.08	0.11	190.10	0.88	-	-	2.29	0.12
75	Cr ₈ Te ₁₂	163	-163.44	-0.98	-18.91	0.56	-	-	8.64	-1.76
76	Cr ₁₀ S ₁₂	163	-79.64	0.05	-70.59	-0.01	-	-	1.13	-6.47
77	S ₂ Ta ₁	164	-3.96	-0.00	-9.27	-0.12	-	-	0.43	0.02
78	Y ₃ Fe ₉	166	304.96	-0.64	64.59	1.92	-	-	4.72	-0.33
79	Co ₃ Sn ₂ S ₂	166	757.13	1.01	72.17	1.64	1130 [5]	1.35 at 500K [1]	10.49	0.62
80	Tl ₂ Fe ₆ Te ₆	176	-252.63	-0.17	-77.75	-0.30	-	-	3.25	0.57
81	Se ₁₆ Nb ₈ Mn ₂	176	-34.74	-0.81	216.66	2.57	-	-	-0.16	-0.32
82	N ₂ Fe ₆	182	234.04	0.27	111.88	0.21	-	-	2.09	1.31
83	Cr ₂ Nb ₆ S ₁₂	182	-2.26	-0.14	-53.97	-0.15	-	-	0.04	0.97
84	S ₁₂ Cr ₂ Nb ₆	182	-12.32	0.18	-64.10	0.07	-	-	0.19	2.67
85	Se ₁₂ Ta ₄ Cr ₂ Ta ₂	182	-137.59	0.07	-195.55	-0.22	-	-	0.70	-0.34
86	Fe ₂ Ta ₆ S ₁₂	182	-190.51	-0.35	-363.98	0.36	-	-	0.52	-0.98
87	S ₂ Cd ₂	186	-2.39	0.00	-0.21	0.01	-	-	11.17	0.27
88	Se ₂ Cd ₂	186	0.00	0.03	0.00	0.03	-	-	1.28	0.98
89	P ₃ Fe ₆	189	217.79	-0.86	-51.95	-0.71	-	-	-4.19	1.21
90	Mn ₂ As ₃ Rh ₃	189	442.21	-1.04	-143.21	1.27	-	-	-3.09	-0.82
91	Cr ₃ Ni ₃ As ₃	189	89.23	-0.36	270.38	0.62	-	-	0.33	-0.58
92	Mn ₃ P ₃ Rh ₃	189	202.71	0.26	-120.82	-0.30	-	-	-1.68	-0.89
93	Pd ₃ Cr ₃ As ₃	189	78.81	-0.43	163.64	-3.66	-	-	0.48	0.12
94	Mn ₃ Fe ₃ As ₃	189	33.99	-0.92	-177.30	0.15	-	-	-0.19	-6.21
95	Mn ₃ As ₃ Pd ₃	189	148.17	-0.91	236.86	0.68	-	-	0.63	-1.34
96	Mn ₃ Ge ₃ Pd ₃	189	463.46	-0.39	420.74	-0.98	-	-	1.10	0.40
97	Mn ₃ As ₃ Ru ₃	189	499.62	-2.28	226.23	-3.38	-	-	2.21	0.68
98	B ₂ Co ₈ Y ₂	191	554.19	-2.93	-938.76	5.83	-	-	-0.59	-0.50
99	Y ₁ Co ₅	191	1142.26	-3.84	256.80	3.33	-	6.05 at 500K [1]	4.45	-1.15
100	Fe ₁₁ B ₄ Y ₃	191	269.20	0.73	919.22	-2.81	-	-	0.29	-0.26
101	Y ₂ Fe ₂ Co ₆ B ₂	191	34.83	0.63	-385.88	1.18	-	-	-0.09	0.53
102	Y ₃ Co ₁₁ B ₄	191	997.23	-0.45	-201.09	1.77	-	-	-4.96	-0.26
103	Y ₄ Co ₁₄ B ₆	191	716.92	2.29	-28.26	0.11	-	-	-25.37	20.85
104	Ni ₁₃ Y ₃ B ₂	191	403.96	-0.67	-264.76	-2.65	-	-	-1.53	0.25
105	Mn ₆ Sn ₆ Mg ₁	191	175.79	0.21	-6.25	-0.82	-	-	-28.14	-0.26
106	Mn ₁ B ₂	191	66.43	0.85	-107.00	0.58	-	1.19 at 500K [1]	-0.62	1.46
107	Y ₁ Ni ₅	191	-246.34	-0.73	113.57	0.25	-	1.82 at 500K [1]	-2.17	-2.87
108	Zr ₁ Mn ₆ Sn ₆	191	993.71	1.29	346.42	-0.82	-	-	2.87	-1.57
109	Mn ₁₀ Ge ₆	193	196.23	-1.18	964.93	1.69	-	-	0.20	-0.70
110	Si ₆ Fe ₁₀	193	209.47	-0.57	-8.44	-2.41	-	-	-24.82	0.24
111	Cr ₄ Te ₄	194	-521.03	0.44	-513.33	0.58	-	-	1.01	0.76
112	Y ₂ Fe ₁₇	194	374.01	-0.63	474.77	-0.96	-	-	0.79	0.66
113	Fe ₆ Ge ₂	194	417.80	-0.85	197.21	0.29	-	-	2.12	-2.94
114	Mn ₂ As ₂	194	-38.70	0.02	178.43	-1.63	-	-	-0.22	-0.02
115	Sc ₄ Fe ₈	194	213.10	-1.09	189.90	1.09	-	-	1.12	-1.00
116	Sc ₆ In ₂	194	-6.66	-0.75	-139.79	0.04	-	-	0.05	-20.09
117	Hf ₄ Fe ₈	194	284.54	0.45	415.10	2.42	-	-	0.69	0.19
118	BegFe ₄	194	475.24	-1.00	385.15	-3.91	-	-	1.23	0.26
119	Co ₂	194	38.95	-0.13	482.78	0.05	477 [3]	-	0.08	-2.39
120	F ₆ Ni ₂ Cs ₂	194	0.06	-0.02	-0.00	0.00	-	-	-3023.06	-7987.00
121	Fe ₂ Co ₂ Ge ₂	194	-26.92	-2.25	706.25	0.85	-	-	-0.04	-2.65
122	Mn ₂ Bi ₂	194	1599.55	-1.42	849.95	2.35	-	-	1.88	-0.60
123	Mn ₂ Co ₂ Sn ₂	194	382.66	-3.65	-280.30	-3.20	-	-	-1.37	1.14

124	Mn ₂ Ga ₂ Pt ₂	194	-1081.62	-3.63	611.59	-0.97	-	-	-	-1.77	3.75	
125	Mn ₆ Ga ₂	194	119.35	1.73	1605.63	3.91	-	-	-	0.07	0.44	
126	Zr ₄ Fe ₂ V ₆	194	-27.76	1.02	-205.58	0.28	-	-	-	0.14	3.59	
127	Fe ₆ Sn ₂	194	802.88	-1.04	822.55	-3.13	-503 [2]	1.02 at 300K [2]	0.98	0.33		
128	Mg ₄ Cos	194	-871.05	1.02	204.33	0.07	-	-	-	-4.26	14.89	
129	Fe ₄ Ge ₂	194	-464.24	-0.01	1182.00	-2.35	-	-	-	-0.39	0.00	
130	Mn ₂ Ni ₂ Ge ₂	194	213.35	0.65	90.35	1.63	-	-	-	2.36	0.40	
131	Nb ₄ Fe ₈	194	1212.37	4.01	1029.89	-1.23	-	-	-	1.18	-3.25	
132	Cl ₆ Rb ₂ Fe ₂	194	-4.69	-0.66	0.81	0.05	-	-	-	-5.81	-13.57	
133	Ti ₄ Fe ₈	194	821.15	3.21	96.72	5.68	-	-	-	8.49	0.56	
134	Al ₆ Fe ₂ Y ₄	194	534.80	-1.07	33.74	1.81	-	-	-	15.85	-0.59	
135	Mn ₄ Si ₄	198	147.21	-0.76	138.30	-0.73	150 [5]	-0.80 at ... K [6]	1.06	1.05		
136	Fe ₄ Ge ₄	198	121.17	0.00	147.02	0.01	-	-	-	0.82	0.10	
137	Fe ₄ Sb ₄ Pt ₄	198	208.60	-1.72	177.74	-1.63	-	-	-	1.17	1.05	
138	Fe ₄ Si ₄	198	75.57	0.12	14.09	0.16	-	-	-	5.36	0.70	
139	Na ₁ Fe ₄ Sb ₁₂	204	617.22	-3.18	850.48	-2.78	-	-	-	0.73	1.14	
140	S ₈ Co ₄	205	-365.66	2.15	-351.35	2.19	-	-	-	1.04	0.98	
141	Co ₄ Se ₈	205	510.92	-1.22	196.23	-1.59	-	-	-	2.60	0.77	
142	Se ₈ Ni ₄	205	1.42	-0.08	10.07	0.07	-	-	-	0.14	-1.23	
143	Pd ₈ Mo ₁₂ N ₄	213	-3.28	-0.07	146.90	0.14	-	-	-	-0.02	-0.49	
144	Mn ₁ Ni ₁ Sb ₁	216	164.64	0.09	164.65	0.09	-	0.23 at 500K [1]	1.00	1.06		
145	Ti ₁ Co ₁ Sn ₁	216	150.77	0.11	149.37	0.18	-	0.23 at 500K [1]	1.01	0.65		
146	Mn ₁ Co ₁ Sb ₁	216	2.36	-0.39	20.23	-0.30	-	0.51 at 500K [1]	0.12	1.31		
147	Mn ₁ Sn ₁ Pt ₁	216	138.68	0.85	-42.11	1.06	-	1.70 at 500K [1]	-3.29	0.80		
148	Mn ₁ Sb ₁ Au ₁	216	397.47	0.45	424.26	0.09	-	0.99 at 500K [1]	0.94	5.30		
149	Mn ₁ Sb ₁ Pt ₁	216	81.37	0.50	143.12	0.39	-	0.68 at 500K [1]	0.57	1.29		
150	V ₁ Co ₁ Sb ₁	216	103.27	0.40	59.07	0.51	-	0.47 at 500K [1]	1.75	0.77		
151	Mn ₁ Sn ₁ Au ₁	216	-58.80	0.18	-50.28	0.60	-	0.39 at 500K [1]	1.17	0.30		
152	Bi ₈ Mn ₁₀ Ni ₄	216	321.82	-1.63	329.89	-1.09	-	-	0.98	1.49		
153	Al ₄ Cr ₄ Fe ₄ Co ₄	216	-250.90	-0.03	-129.23	0.61	-	-	-	1.94	-0.04	
154	Cr ₄ Cu ₁ Se ₈ In ₁	216	36.00	-1.14	57.99	-1.10	-	-	-	0.62	1.03	
155	Rh ₄ Mn ₄ Sn ₄	216	49.09	0.81	28.53	0.81	-	-	-	1.72	0.99	
156	Mn ₁ Fe ₁ Co ₁ Ge ₁	216	23.56	1.27	21.73	1.18	-	-	-	1.08	1.07	
157	Mn ₂ Co ₁ Sb ₁	216	29.20	-0.11	28.58	-0.07	-	0.67 at 500K [1]	1.02	1.73		
158	Mn ₂ Fe ₁ C ₆ N ₆	216	0.00	0.19	0.00	-0.40	-	-	-	0.40	-0.49	
159	Zr ₁ In ₁ Ni ₄	216	335.04	0.02	363.00	-0.27	-	-	-	0.92	0.09	
160	Ni ₅ Zr ₁	216	-220.27	1.50	-202.99	1.76	-	2.43 at 500K [1]	1.09	0.85		
161	As ₁₂	220	891.79	1.24	536.22	2.98	-	-	-	1.66	0.42	
162	P ₁₂	220	0.00	-1.08	0.00	-1.08	-	-	-	2.69	1.00	
163	Al ₁ Ni ₃	221	206.19	-2.74	208.74	-2.15	-	3.35 at 500K [1]	0.99	1.28		
164	Fe ₁ Pt ₃	221	-318.04	-1.83	-318.40	-1.73	-	-	-	1.00	1.06	
165	Cr ₁ Pt ₃	221	2060.08	-0.10	2040.21	-0.24	2040 [4]	2.75 at 500K [1]	1.01	0.42		
166	Al ₁ Fe ₁	221	-302.83	-1.59	-310.86	-1.62	-	3.34 at 500K [1]	0.97	0.98		
167	Fe ₁ Ni ₃	221	-127.38	0.02	-80.97	-0.01	-	2.84 at 500K [1]	1.57	-1.17		
168	Fe ₁ Rh ₁	221	809.19	-0.13	794.39	-0.12	-	1.98 at 500K [1]	1.02	1.05		
169	Ga ₁ Co ₁	221	-9.13	0.08	-16.84	0.08	-	-	-	0.54	0.95	
170	Fe ₁ Pd ₃	221	-201.61	1.56	-217.08	1.61	-	2.20 at 500K [1]	0.93	0.97		
171	Mn ₁ Pt ₃	221	1342.88	-4.06	1471.55	-4.58	1400 [4]	4.55 at 500K [1]	0.91	0.89		
172	Mn ₁ Zn ₁	221	339.81	-1.64	1059.69	-0.78	-	2.40 at 500K [1]	0.32	2.10		
173	Fe ₄ N ₁	221	631.04	0.45	557.85	-0.60	-	2.44 at 500K [1]	1.13	-0.75		
174	Mn ₁ Ni ₃	221	45.87	0.94	43.37	0.76	-	-	1.06	1.23		
175	Mn ₄ N ₁	221	119.34	-0.04	884.35	1.93	-	0.83 at 500K [1]	0.13	-0.02		
176	V ₁ Fe ₁	221	61.81	-2.93	59.98	-1.80	-	2.56 at 500K [1]	1.03	1.62		
177	Co ₁ Pt ₃	221	-978.05	-0.50	-933.11	-0.58	-	1.04 at 500K [1]	1.05	0.87		
178	Mn ₃ Ge ₁	221	-130.51	4.78	-57.15	4.93	-	1.38 at 500K [1]	2.28	0.97		
179	C ₁ Mn ₃ In ₁	221	-52.54	-0.98	-157.79	0.63	-	-	0.33	-1.57		
180	Ni ₃ Pt ₁	221	-2044.52	-7.24	-2051.84	-7.29	-	-	1.00	0.99		
181	Ti ₁ Co ₃	221	-125.38	-1.46	-139.69	-1.61	-	-	0.90	0.90		
182	B ₆ Ba ₁	221	-0.80	0.01	51.03	-0.12	-	-	-	-0.02	-0.07	
183	C ₁ Al ₁ Mn ₃	221	181.58	-0.48	180.17	-0.50	-	0.93 at 500K [1]	1.01	0.96		
184	Ni ₃ Al ₁ C ₁	221	-4.68	0.02	-3.32	0.04	-	-	-	1.41	0.56	
185	Mn ₁ Ni ₂ Ga ₁	225	9.84	0.41	-41.73	0.46	31 [2]	-0.50 at 300K [2]	-0.24	0.89		
186	Mn ₁ Ni ₂ Sn ₁	225	-83.45	-0.83	-60.95	-0.80	-9 [2]	0.66 at 300K [2]	1.37	1.03		
187	Ni ₁	225	-2038.91	0.99	-2444.07	0.76	-2500 [3]	0.22 at 300K [7]	0.83	1.29		
188	Mn ₁ Ni ₂ In ₁	225	-50.86	0.20	-60.36	-0.03	-99 [2]	-0.49 at 300K [2]	0.84	-7.38		
189	Mn ₁ Ni ₂ Sb ₁	225	-60.65	0.06	-86.11	0.04	-	0.26 at 500K [1]	0.70	1.52		
190	Mn ₁ Pd ₂ Sn ₁	225	110.43	0.86	122.81	0.89	-	1.21 at 500K [1]	0.90	0.97		
191	Ti ₁ Co ₂ Sn ₁	225	130.36	0.04	134.33	0.03	-114 [2]	-0.02 at 300K [2]	0.97	1.34		
192	Al ₁ Fe ₃	225	216.26	-1.54	218.06	-1.65	-265 [2]	1.33 at 300K [2]	0.99	0.93		
193	Mn ₁ Co ₂ Sn ₁	225	180.14	-0.00	200.08	-0.00	118 [8]	0.11 at 300K [2]	0.90	0.62		
194	Al ₁ Ti ₁ Co ₂	225	112.53	-0.31	77.67	-0.56	-84 [2]	0.31 at 300K [2]	1.45	0.56		
195	Ga ₁ Fe ₃	225	743.55	-1.71	797.26	-1.65	-	5.22 at 500K [1]	0.93	1.04		
196	Fe ₃ Si ₁	225	341.40	-0.28	331.33	-0.11	-330 [2]	0.59 at 300K [2]	1.03	2.48		
197	Mn ₁ Rh ₂ Sn ₁	225	293.61	0.46	398.36	0.48	-270 [2]	0.31 at 300K [2]	0.74	0.95		
198	Mn ₁ Pd ₂ Sn ₁	225	376.96	-0.76	314.12	-0.90	-	1.38 at 500K [1]	1.20	0.84		
199	Mn ₁ Al ₁ Cu ₂	225	185.04	-0.18	168.81	-0.10	-	0.23 at 500K [1]	1.10	1.79		
200	Fe ₁ Co ₂ Si ₁	225	-138.85	-4.85	-509.80	-6.69	-275 [2]	2.57 at 300K [2]	0.27	0.72		

201	Al ₁ V ₁ Fe ₂	225	8.61	0.06	8.48	0.08	-	-	-	1.02	0.73
202	Fe ₂₃ Y ₆	225	231.13	1.68	272.00	1.03	-	-	-	0.85	1.62
203	In ₂ Au ₁	225	3.80	-0.01	84.77	0.00	-	-	-	0.04	-4.93
204	Mn ₆ Cu ₈ Bis	225	714.73	-0.10	718.54	1.02	-	-	-	0.99	-0.10
205	V ₁ Co ₂ Sn ₁	225	108.60	-1.23	-79.60	-1.42	164 [2]	0.63 at 300K [2]	-1.36	0.86	
206	Al ₁ Co ₂ Zr ₁	225	126.80	-0.34	157.87	-0.44	-	0.73 at 500K [1]	0.80	0.77	
207	Zr ₁ Co ₂ Sn ₁	225	75.28	0.01	83.65	0.01	-	0.05 at 500K [1]	0.90	1.16	
208	Al ₁ Mn ₁ Au ₂	225	84.91	-0.16	80.77	-0.53	-	0.83 at 500K [1]	1.05	0.30	
209	Al ₁ Cr ₁ Co ₂	225	815.94	1.17	657.72	1.34	438 [8]	3.23 at 300K [2]	1.24	0.87	
210	Fe ₈ Cr ₄ Si ₄	225	720.50	-2.33	892.13	-2.83	-	-	0.81	0.82	
211	Mn ₄ Sn ₄ Cu ₈	225	198.14	0.40	190.94	0.31	-	-	1.04	1.26	
212	Ga ₁ Fe ₂ Ni ₁	225	1239.52	-1.49	1487.77	-2.33	-69 [2]	1.27 at 300K [2]	0.83	0.64	
213	Fe ₄ Ru ₈ Si ₄	225	1044.72	-1.12	1037.94	-1.67	-1054 [2]	0.38 at 300K [2]	1.01	0.67	
214	Co ₂ Sn ₁ Hf ₁	225	43.87	0.58	69.77	0.43	-	0.19 at 500K [1]	0.63	1.35	
215	Mn ₁ Co ₂ Si ₁	225	194.27	-0.50	166.22	-0.55	-187 [2]	0.66 at 300K [2]	1.17	0.90	
216	Al ₁ Mn ₁ Ni ₂	225	-162.87	0.91	-128.55	0.80	223 [2]	-0.96 at 300K [2]	1.27	1.13	
217	Mn ₁ Ni ₂ Ge ₁	225	110.38	-1.05	104.19	-1.07	-155 [2]	1.12 at 300K [2]	1.06	0.99	
218	Mn ₁ Pd ₂ Ge ₁	225	289.20	0.35	294.26	0.45	-	1.01 at 500K [1]	0.98	0.76	
219	Mn ₁ Rh ₂ Pb ₁	225	-119.31	-0.93	-297.19	-1.09	-	1.67 at 500K [1]	0.40	0.86	
220	Ni ₁ Ge ₁ Rh ₂	225	-0.00	0.00	-0.07	0.00	-	-	0.01	0.14	
221	Ti ₁ Co ₂ Ga ₁	225	146.02	-0.68	149.46	-0.83	-46 [2]	0.55 at 300K [2]	0.98	0.81	
222	Al ₁ Ti ₁ Fe ₂	225	72.93	-0.28	69.22	-0.24	-38 [2]	0.03 at 300K [2]	1.05	1.16	
223	Al ₁ V ₁ Mn ₂	225	59.25	-0.47	70.56	-0.40	-51 [2]	0.36 at 300K [2]	0.84	1.17	
224	Cr ₁ Ga ₁ Co ₂	225	618.69	1.64	654.20	1.81	-645 [2]	2.02 at 300K [2]	0.95	0.91	
225	Al ₁ Cr ₁ Fe ₂	225	-120.08	-0.88	103.73	0.11	-155 [2]	-0.18 at 300K [2]	-1.16	-8.21	
226	Cr ₁ Fe ₂ Ga ₁	225	-166.65	2.76	-138.68	1.03	-190 [2]	-0.68 at 300K [2]	1.20	2.67	
227	N ₂ Cr ₂	225	-171.32	-1.69	-123.82	-0.71	-	-	1.38	2.39	
228	Al ₁ Cr ₁ Ni ₂	225	-498.01	-1.06	-512.11	-1.00	286 [2]	1.83 at 300K [2]	0.97	1.06	
229	Mn ₁ Cu ₂ In ₁	225	57.88	0.34	41.52	0.49	-	0.74 at 500K [1]	1.39	0.69	
230	Fe ₁ Sn ₁ Ru ₂	225	201.04	-1.22	204.57	-0.99	-232 [2]	-1.66 at 300K [2]	0.98	1.23	
231	Ga ₁ Fe ₂ Co ₁	225	-227.40	2.19	-208.68	3.28	-54 [2]	1.05 at 300K [2]	1.09	0.67	
232	Al ₁ Co ₂ Hf ₁	225	216.34	-0.24	250.96	-0.17	-	-	0.86	1.42	
233	Mn ₁ Ga ₂ Co ₁	225	32.25	-1.33	120.81	-0.72	-	-	0.27	1.84	
234	Mn ₁ Co ₂ Ge ₁	225	307.22	-0.11	306.85	-0.12	-253 [2]	0.27 at 300K [2]	1.00	0.93	
235	Mn ₁ Co ₂ Sb ₁	225	-7.43	-0.97	-11.80	-0.98	-4 [2]	0.55 at 300K [2]	0.63	0.99	
236	Al ₁ Mn ₁ Fe ₂	225	743.00	1.74	731.70	1.52	-	-	1.02	1.14	
237	Mn ₁ Fe ₂ Si ₁	225	118.95	0.68	163.44	0.75	-118 [2]	-0.82 at 300K [2]	0.73	0.91	
238	Al ₁ Co ₂ Nb ₁	225	28.90	0.17	31.29	0.23	-	0.46 at 500K [1]	0.92	0.74	
239	Ni ₁ Rh ₂ Sn ₁	225	20.26	-9.11	105.76	-9.06	360 [2]	8.14 at 300K [2]	0.19	1.01	
240	Sc ₁ Co ₂ Sn ₁	225	129.93	-0.41	137.74	-0.38	-63 [2]	0.2 at 300K [2]	0.94	1.08	
241	Si ₈ Ru ₄	225	-88.51	1.19	-106.15	1.00	-	-	0.83	1.18	
242	Al ₁ Co ₂ Ta ₁	225	-76.07	0.75	-72.56	0.70	-	-	1.05	1.06	
243	Ti ₁ Co ₂ Si ₁	225	151.41	0.58	113.08	0.36	-118 [2]	-0.22 at 300K [2]	1.34	1.63	
244	Al ₁ V ₁ Co ₂	225	151.02	0.15	167.09	0.10	-166 [2]	-0.28 at 300K [2]	0.90	1.44	
245	V ₁ Co ₂ Ga ₁	225	142.59	0.06	140.34	0.03	137 [9]	-0.16 at 300K [2]	1.02	2.39	
246	Si ₁ V ₁ Co ₂	225	309.01	-1.06	284.71	-1.40	-	1.06 at 500K [1]	1.09	0.76	
247	Si ₁ V ₁ Fe ₂	225	39.61	1.00	35.00	0.78	-147 [2]	-1.54 at 300K [2]	1.13	1.28	
248	V ₁ Fe ₂ Sn ₁	225	330.15	0.34	307.39	1.03	78 [2]	-0.23 at 300K [2]	1.07	0.33	
249	Mn ₂ V ₁ Ga ₁	225	63.89	1.02	109.90	1.06	29 [2]	-0.64 at 300K [2]	0.58	0.96	
250	Mn ₂ Sn ₁ W ₁	225	49.45	-4.99	708.77	-2.23	-	-	0.07	2.24	
251	Zn ₄ Zr ₂	227	-165.25	-0.47	-181.43	-0.33	-	-	0.91	1.40	
252	Y ₂ Fe ₄	227	4.82	-0.97	41.57	-0.75	-	-	0.12	1.29	
253	Cr ₄ Se ₈ Cd ₂	227	0.00	-0.83	0.00	-0.79	-	-	70.09	1.05	
254	S ₈ Cr ₄ Cd ₂	227	-0.83	0.10	-0.63	0.17	-	-	1.32	0.59	
255	Fe ₄ Zr ₂	227	215.31	0.90	237.03	1.10	-	-	0.91	0.82	
256	Cr ₄ Cu ₂ Se ₈	227	28.35	-0.41	13.44	-0.46	-	-	2.11	0.89	
257	S ₈ Cr ₄ Fe ₂	227	-280.51	2.08	-51.36	2.40	-	-	5.46	0.87	
258	Cr ₄ Se ₈ Hg ₂	227	137.25	-0.91	30.13	-0.76	35 [10]	-	4.55	1.20	
259	Cr ₄ Cu ₂ Te ₈	227	-47.44	-0.35	-145.88	-0.46	-	-	0.33	0.75	
260	S ₈ Cr ₄ Cu ₂	227	-24.72	-0.98	-40.91	-1.07	-	-	0.60	0.91	
261	Co ₄ Zr ₂	227	-147.93	1.10	-163.83	1.42	-	-	0.90	0.78	
262	S ₈ Cr ₄ Fe ₁ Cu ₁	227	-420.86	0.11	-140.60	0.27	-	-	2.99	0.39	
263	Fe ₄ F ₁₂	227	0.00	0.05	0.03	-0.00	-	-	0.00	-20.80	
264	Fe ₆ S ₈	227	-353.69	2.47	837.63	-2.56	-	-	-0.42	-0.97	
265	Y ₂ Co ₄	227	662.69	-1.05	855.03	-1.32	-	-	0.78	0.80	
266	Fe ₁	229	862.83	-0.69	833.57	-0.92	767 [3]	4.08 at 500K [1]	1.04	0.76	

Table. S 1: AHC at T=0K and ANC at T=300K for the two magnetization directions (σ_x , σ_x for M//x and σ_z , σ_z for M//z), comparison with the literature and the anisotropy of each ferromagnetic compound. The choice of different unit cell between our results and the reported cases is possible. Values highlighted in blue signify the most interesting cases while the ones in green exhibit the largest anisotropy in either direction.

Magnetic Laue group: $4/m\bar{m}'\bar{m}'$		
Symmetry	General Position	Berry Curvature
1	x, y, z	$\Omega_x(k_x, k_y, k_z) = \Omega_x(k_x, k_y, k_z)$ $\Omega_y(k_x, k_y, k_z) = \Omega_y(k_x, k_y, k_z)$ $\Omega_z(k_x, k_y, k_z) = \Omega_z(k_x, k_y, k_z)$
4_z^+	$-y, x, z$	$\Omega_x(-k_y, k_x, k_z) = \Omega_y(k_x, k_y, k_z)$ $\Omega_y(-k_y, k_x, k_z) = -\Omega_x(k_x, k_y, k_z)$ $\Omega_z(-k_y, k_x, k_z) = \Omega_z(k_x, k_y, k_z)$
4_z^-	$y, -x, z$	$\Omega_x(k_y, -k_x, k_z) = -\Omega_y(k_x, k_y, k_z)$ $\Omega_y(k_y, -k_x, k_z) = \Omega_x(k_x, k_y, k_z)$ $\Omega_z(k_y, -k_x, k_z) = \Omega_z(k_x, k_y, k_z)$
$2'_x$	$x, -y, -z$	$\Omega_x(-k_x, k_y, k_z) = -\Omega_x(k_x, k_y, k_z)$ $\Omega_y(-k_x, k_y, k_z) = \Omega_y(k_x, k_y, k_z)$ $\Omega_z(-k_x, k_y, k_z) = \Omega_z(k_x, k_y, k_z)$
$2'_y$	$-x, y, -z$	$\Omega_x(k_x, -k_y, k_z) = \Omega_x(k_x, k_y, k_z)$ $\Omega_y(k_x, -k_y, k_z) = -\Omega_y(k_x, k_y, k_z)$ $\Omega_z(k_x, -k_y, k_z) = \Omega_z(k_x, k_y, k_z)$
2_z	$-x, -y, z$	$\Omega_x(-k_x, -k_y, k_z) = -\Omega_x(k_x, k_y, k_z)$ $\Omega_y(-k_x, -k_y, k_z) = -\Omega_y(k_x, k_y, k_z)$ $\Omega_z(-k_x, -k_y, k_z) = \Omega_z(k_x, k_y, k_z)$
$2'_{xy}$	$y, x, -z$	$\Omega_x(-k_y, -k_x, k_z) = -\Omega_y(k_x, k_y, k_z)$ $\Omega_y(-k_y, -k_x, k_z) = -\Omega_x(k_x, k_y, k_z)$ $\Omega_z(-k_y, -k_x, k_z) = \Omega_z(k_x, k_y, k_z)$
$2'_{x-y}$	$-y, -x, -z$	$\Omega_x(k_y, k_x, k_z) = \Omega_y(k_x, k_y, k_z)$ $\Omega_y(k_y, k_x, k_z) = \Omega_x(k_x, k_y, k_z)$ $\Omega_z(k_y, k_x, k_z) = \Omega_z(k_x, k_y, k_z)$
-1	$-x, -y, -z$	$\Omega_x(-k_x, -k_y, -k_z) = \Omega_x(k_x, k_y, k_z)$ $\Omega_y(-k_x, -k_y, -k_z) = \Omega_y(k_x, k_y, k_z)$ $\Omega_z(-k_x, -k_y, -k_z) = \Omega_z(k_x, k_y, k_z)$
-4_z^+	$y, -x, -z$	$\Omega_x(k_y, -k_x, -k_z) = \Omega_y(k_x, k_y, k_z)$ $\Omega_y(k_y, -k_x, -k_z) = -\Omega_x(k_x, k_y, k_z)$ $\Omega_z(k_y, -k_x, -k_z) = \Omega_z(k_x, k_y, k_z)$
-4_z^-	$-y, x, -z$	$\Omega_x(-k_y, k_x, -k_z) = -\Omega_y(k_x, k_y, k_z)$ $\Omega_y(-k_y, k_x, -k_z) = \Omega_x(k_x, k_y, k_z)$ $\Omega_z(-k_y, k_x, -k_z) = \Omega_z(k_x, k_y, k_z)$
m'_x	$-x, y, z$	$\Omega_x(k_x, -k_y, -k_z) = -\Omega_x(k_x, k_y, k_z)$ $\Omega_y(k_x, -k_y, -k_z) = \Omega_y(k_x, k_y, k_z)$ $\Omega_z(k_x, -k_y, -k_z) = \Omega_z(k_x, k_y, k_z)$
m'_y	$x, -y, z$	$\Omega_x(-k_x, k_y, -k_z) = \Omega_x(k_x, k_y, k_z)$ $\Omega_y(-k_x, k_y, -k_z) = -\Omega_y(k_x, k_y, k_z)$ $\Omega_z(-k_x, k_y, -k_z) = \Omega_z(k_x, k_y, k_z)$
m_z	$x, y, -z$	$\Omega_x(k_x, k_y, -k_z) = -\Omega_x(k_x, k_y, k_z)$ $\Omega_y(k_x, k_y, -k_z) = -\Omega_y(k_x, k_y, k_z)$ $\Omega_z(k_x, k_y, -k_z) = \Omega_z(k_x, k_y, k_z)$
m'_{-xy}	$-y, -x, z$	$\Omega_x(k_y, k_x, -k_z) = -\Omega_y(k_x, k_y, k_z)$ $\Omega_y(k_y, k_x, -k_z) = -\Omega_x(k_x, k_y, k_z)$ $\Omega_z(k_y, k_x, -k_z) = \Omega_z(k_x, k_y, k_z)$
m'_{x-y}	y, x, z	$\Omega_x(-k_y, -k_x, -k_z) = \Omega_y(k_x, k_y, k_z)$ $\Omega_y(-k_y, -k_x, -k_z) = \Omega_x(k_x, k_y, k_z)$ $\Omega_z(-k_y, -k_x, -k_z) = \Omega_z(k_x, k_y, k_z)$

Table. S 2: Transformation of Berry curvature components under the symmetry operations of Magnetic Laue group $4/m\bar{m}'\bar{m}'$

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