Ordnung und Unordnung

oder

Dipolare Gläser

Gleichgewichts-Konfigurationen von Magneten auf verschiedenen Gittern
Teil 2: Quadratische Gitter

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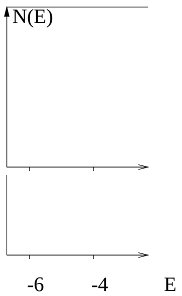
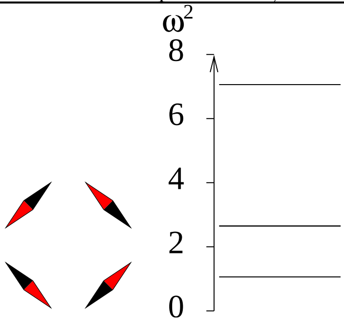
Diese Berechnungen wurden anlässlich der Erstellung der Plastik Ordnung und Unordnung im Kirchhoff-Institut für Physik der Universität Heidelberg durchgeführt.

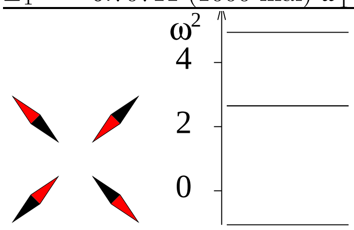
Quadratisches Gitter (1,1,0)



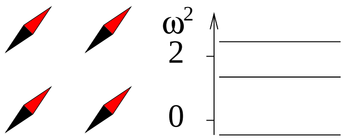
Anzahl Gitterpunkte: 4, Gefundene Energie-Niveaus: 1, Läufe: 1000



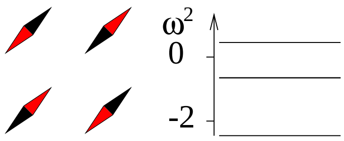
$E_1 = -6.70711$ (1000 mal) $\omega_1^2 = 1.06066$



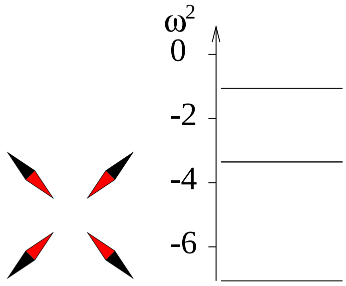
$E_2 = -4.58579$ (0 mal) $\omega_1^2 = -1.06066$



$E_3 = -2.35355$ (0 mal) $\omega_1^2 = -0.45774$

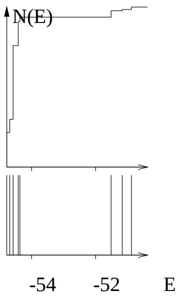


$E_4 = 1.64645$ (0 mal) $\omega_1^2 = -2.45774$

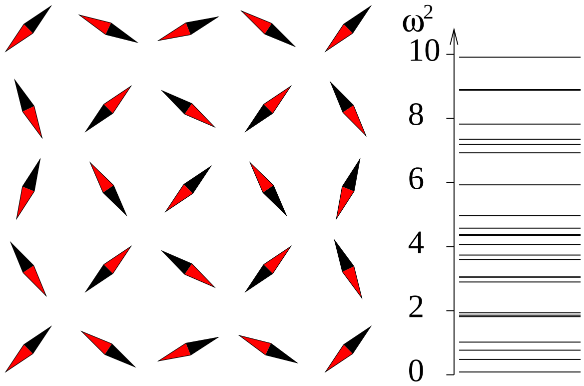


$E_5 = 7.41421$ (0 mal) $\omega_1^2 = -7.06066$

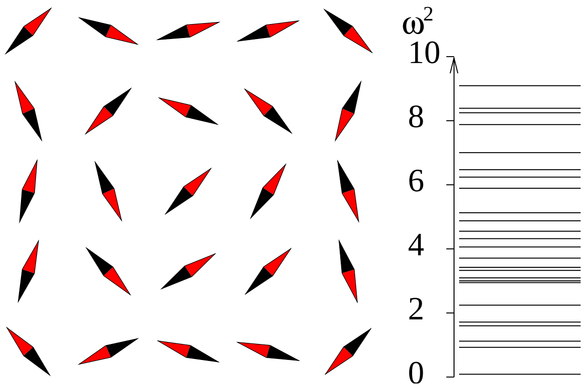
Quadratisches Gitter (4,4,0)



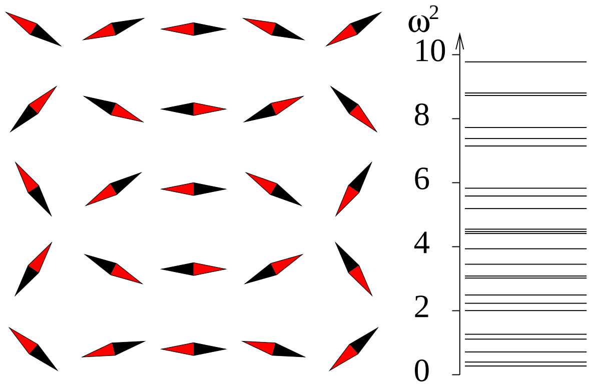
Anzahl Gitterpunkte: 25, Gefundene Energie-Niveaus: 8, Läufe: 1000



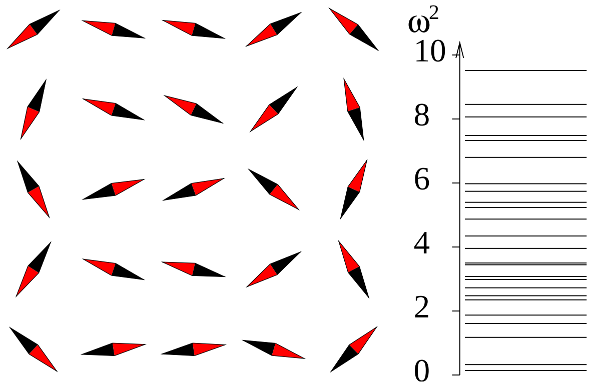
$E_1 = -54.77392$ (217 mal) $\omega_1^2 = 0.08677$



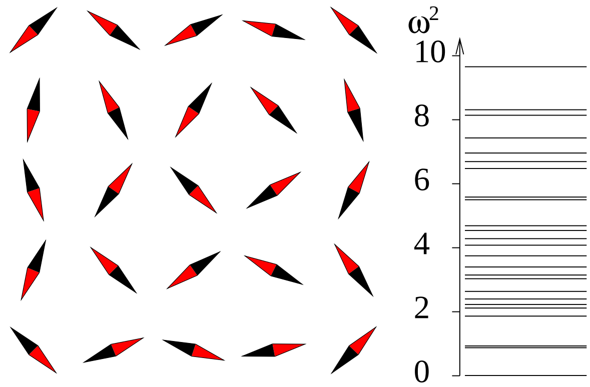
$E_2 = -54.68083$ (81 mal) $\omega_1^2 = 0.08606$



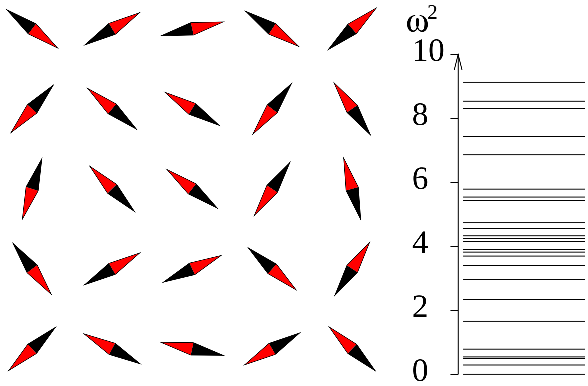
$E_3 = -54.57675$ (461 mal) $\omega_1^2 = 0.27091$



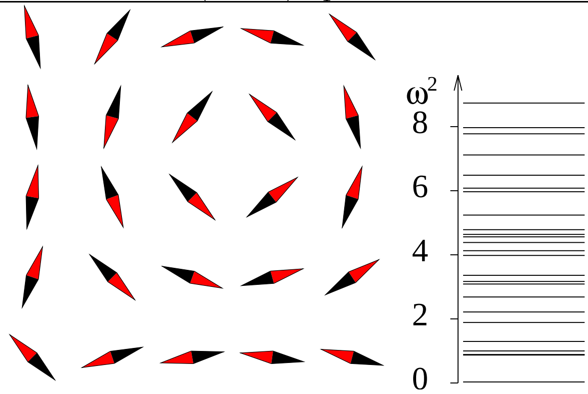
$E_4 = -54.41557$ (149 mal) $\omega_1^2 = 0.13849$



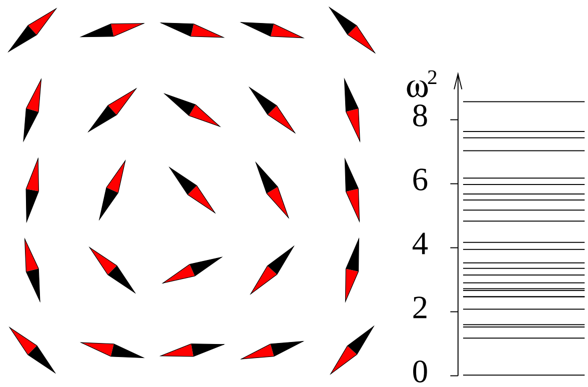
$E_5 = -54.36359$ (29 mal) $\omega_1^2 = 0.00868$



$E_6 = -51.51459$ (40 mal) $\omega_1^2 = 0.00855$

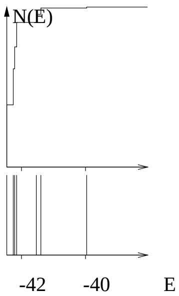


$E_7 = -51.16557$ (8 mal) $\omega_1^2 = 0.03152$

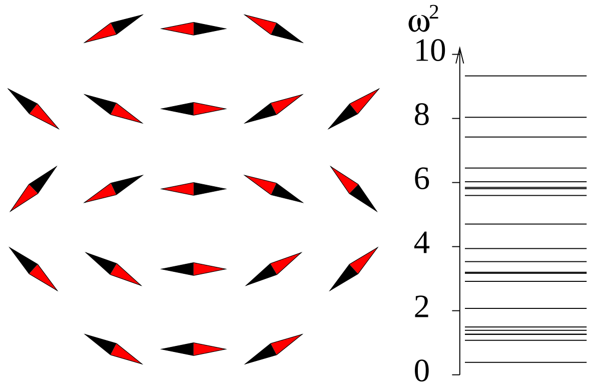


$E_8 = -50.87998$ (15 mal) $\omega_1^2 = 0.01825$

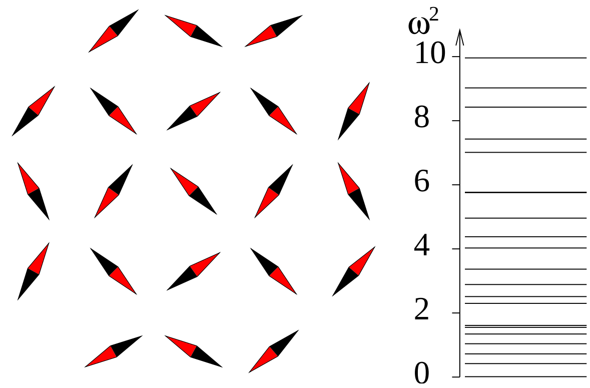
Quadratisches Gitter (4,4,1)



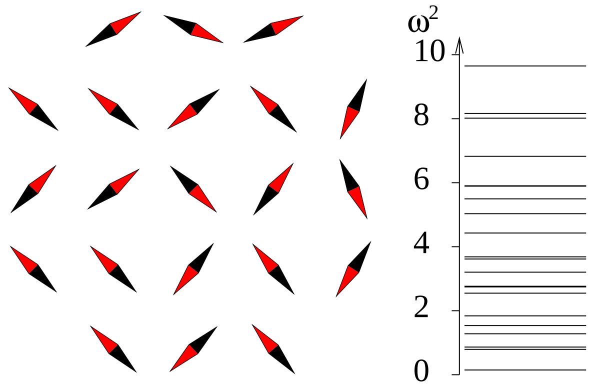
Anzahl Gitterpunkte: 21, Gefundene Energie-Niveaus: 7, Läufe: 1000



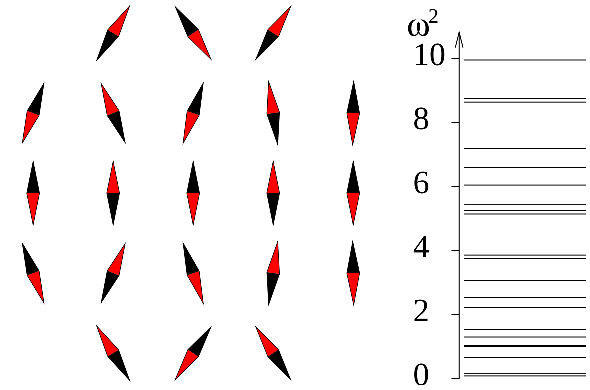
$E_1 = -42.46069$ (389 mal) $\omega_1^2 = 0.38657$



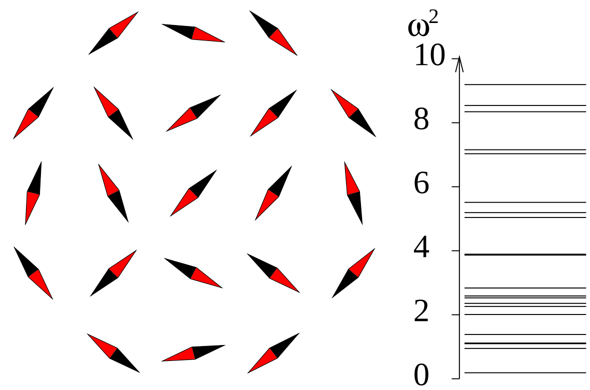
$E_2 = -42.25769$ (225 mal) $\omega_1^2 = 0.01362$



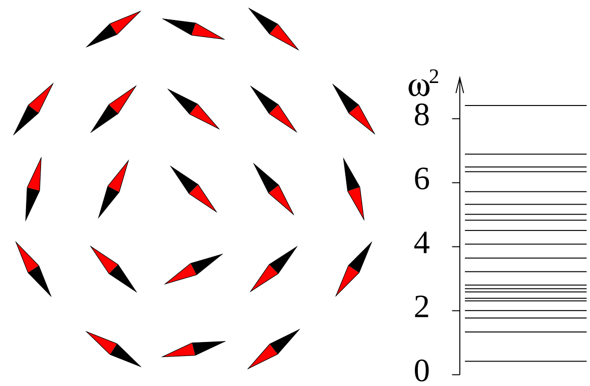
$E_3 = -42.21289$ (137 mal) $\omega_1^2 = 0.14657$



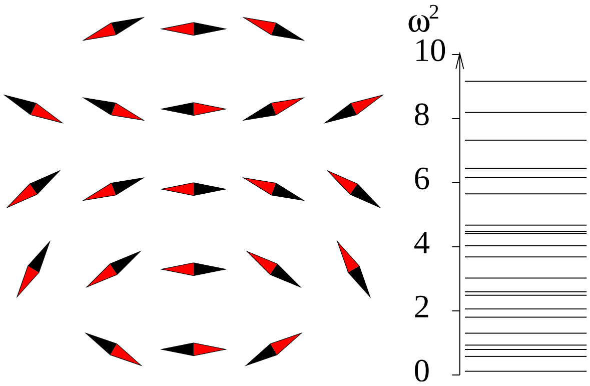
$E_4 = -42.15091$ (153 mal) $\omega_1^2 = 0.08648$



$E_5 = -41.53915$ (51 mal) $\omega_1^2 = 0.18604$

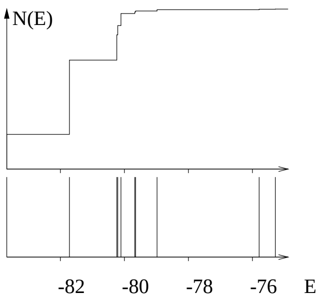


$E_6 = -41.39517$ (39 mal) $\omega_1^2 = 0.41930$

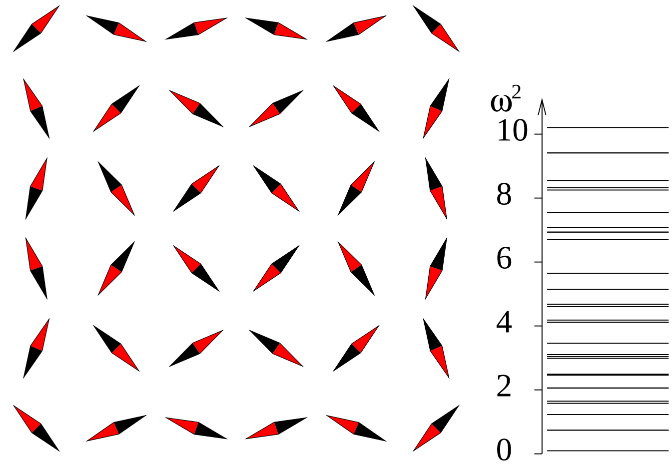


$E_7 = -39.96229$ (6 mal) $\omega_1^2 = 0.11504$

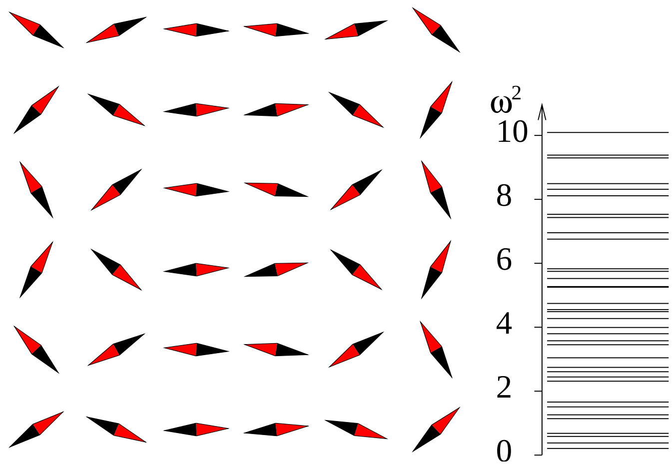
Quadratisches Gitter (5,5,0)



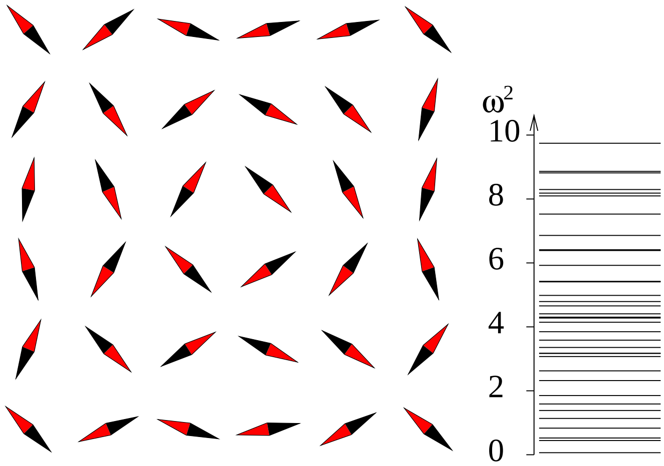
Anzahl Gitterpunkte: 36, Gefundene Energie-Niveaus: 10, Läufe: 1000



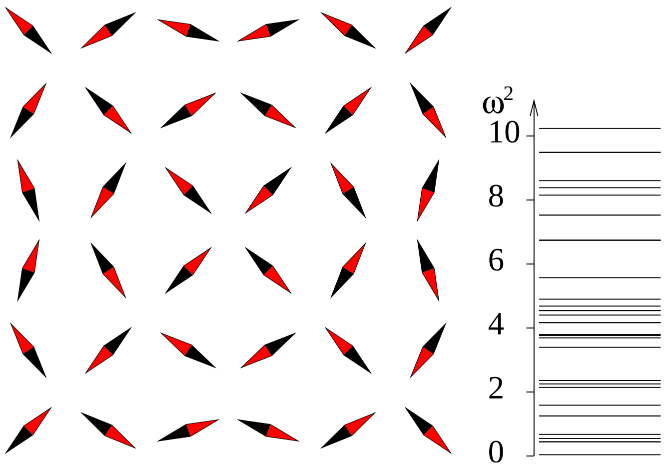
$E_1 = -83.67602$ (217 mal) $\omega_1^2 = 0.09561$



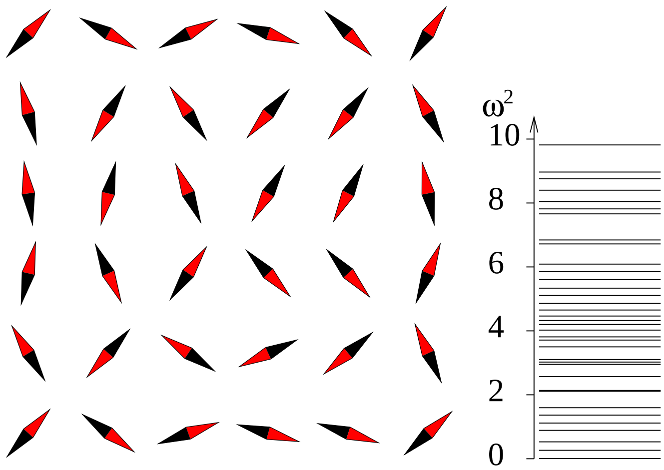
$E_2 = -81.71764$ (464 mal) $\omega_1^2 = 0.20730$



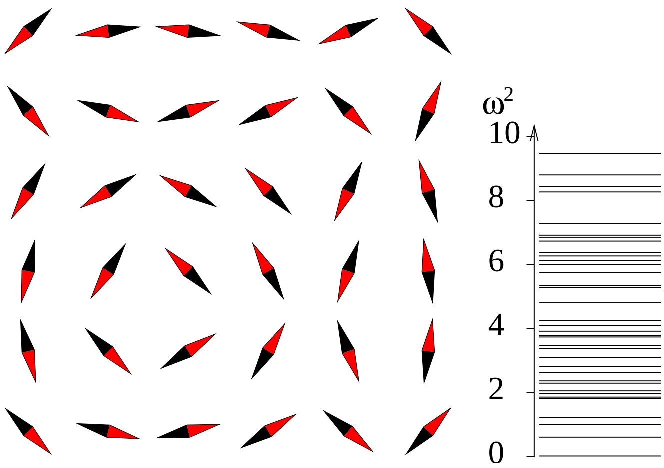
$E_3 = -80.23798$ (158 mal) $\omega_1^2 = 0.06485$



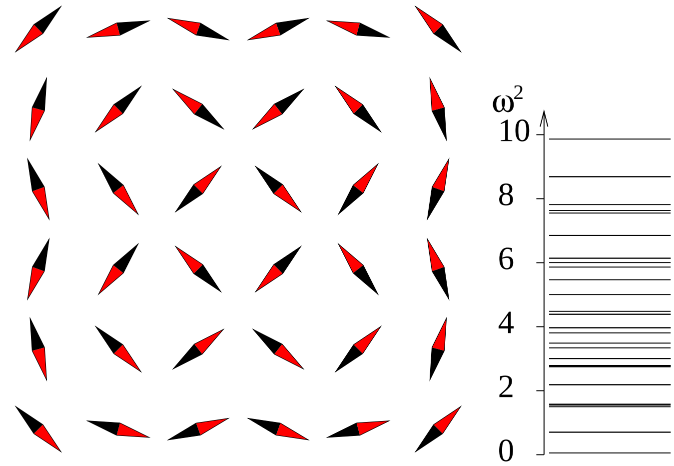
$E_4 = -80.20913$ (58 mal) $\omega_1^2 = 0.04110$



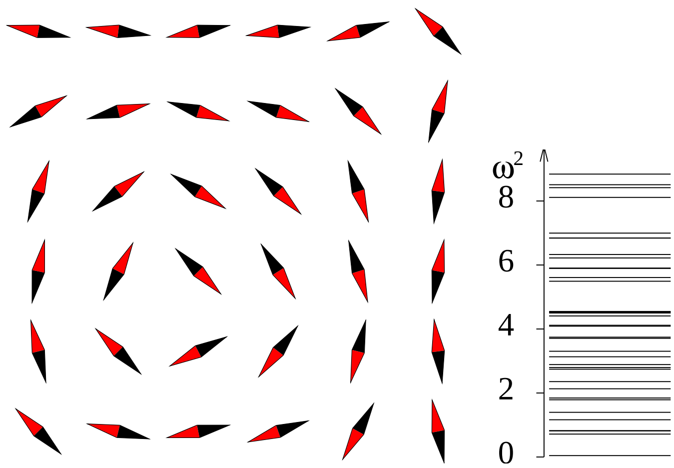
$E_5 = -80.10898$ (75 mal) $\omega_1^2 = 0.00797$



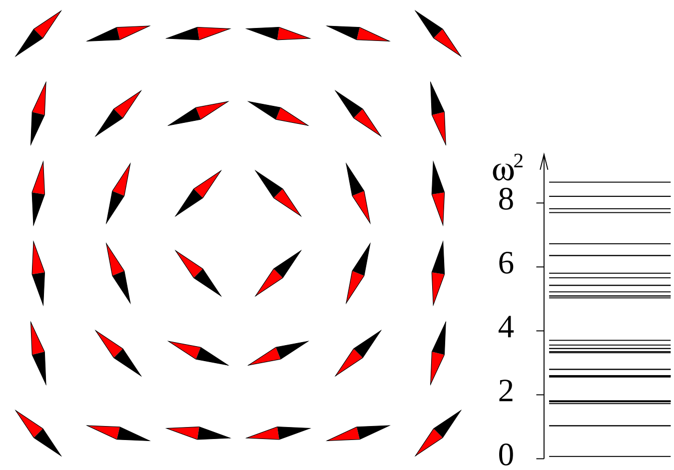
$E_6 = -79.67513$ (10 mal) $\omega_1^2 = 0.02224$



$E_8 = -78.98111$ (8 mal) $\omega_1^2 = 0.05730$

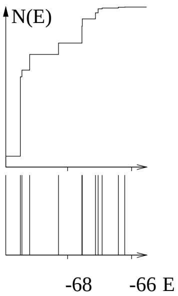


$E_9 = -75.79175$ (3 mal) $\omega_1^2 = 0.04312$

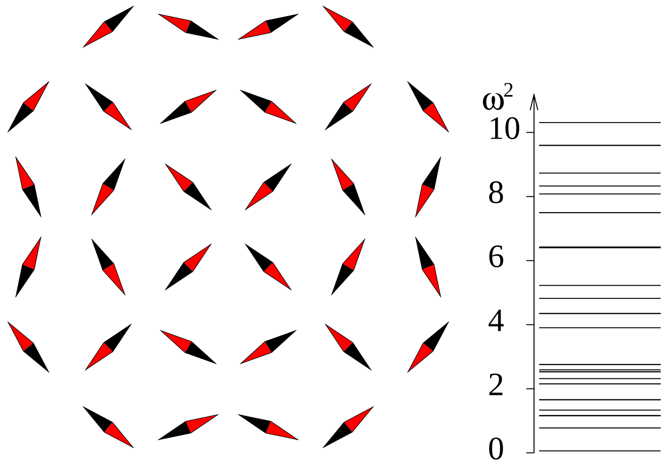


$E_{10} = -75.28643$ (1 mal) $\omega_1^2 = 0.07015$

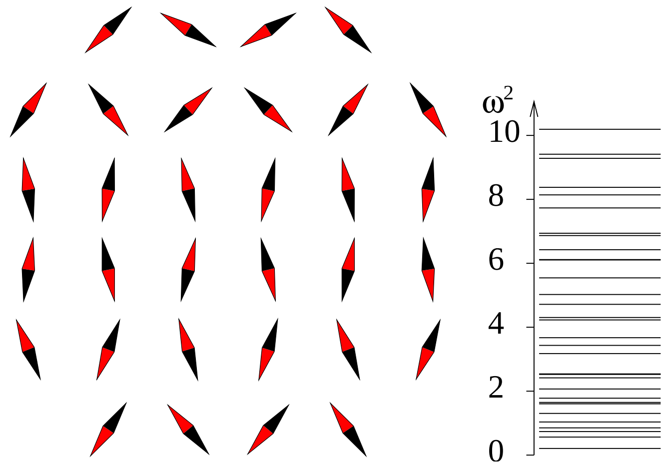
Quadratisches Gitter (5,5,1)



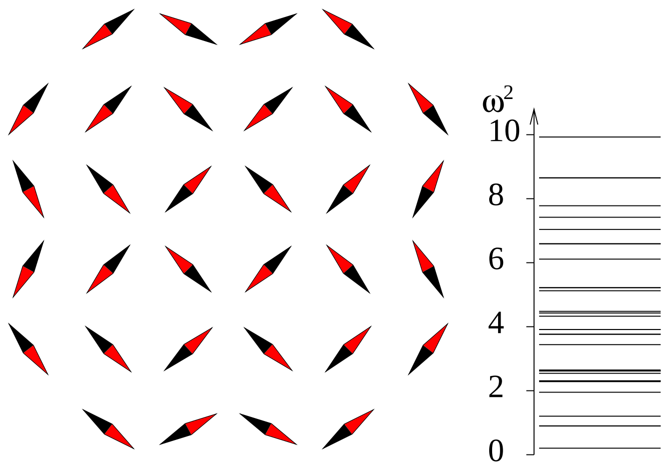
Anzahl Gitterpunkte: 32, Gefundene Energie-Niveaus: 12, Läufe: 1000



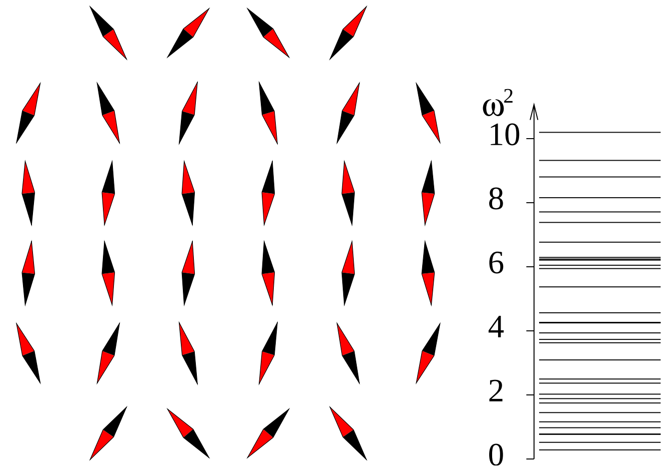
$E_1 = -69.93154$ (68 mal) $\omega_1^2 = 0.06173$



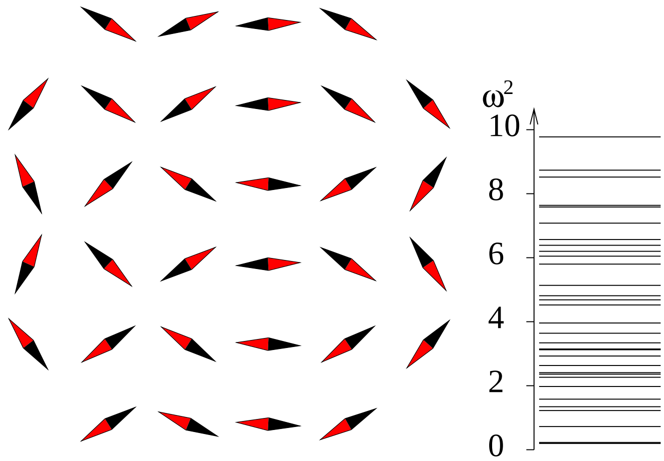
$E_2 = -69.47777$ (496 mal) $\omega_1^2 = 0.20755$



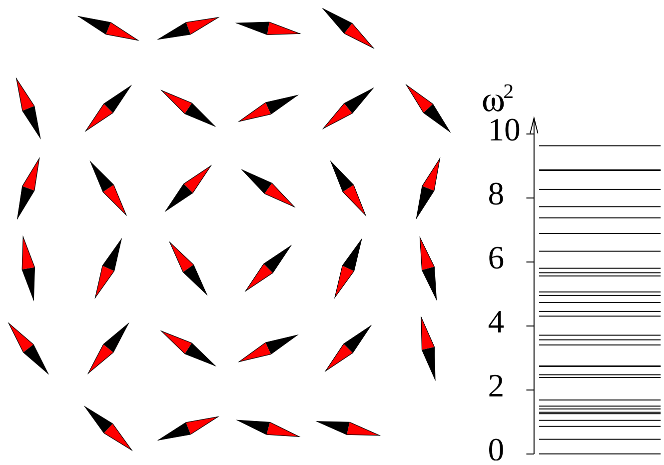
$E_3 = -69.42570$ (42 mal) $\omega_1^2 = 0.20588$



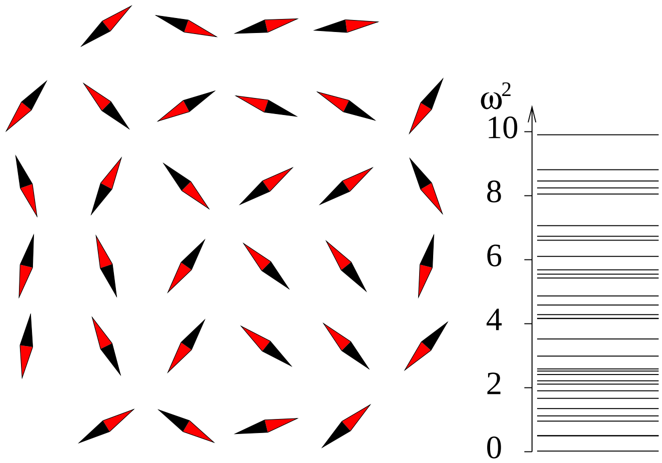
$E_4 = -69.18389$ (98 mal) $\omega_1^2 = 0.28308$



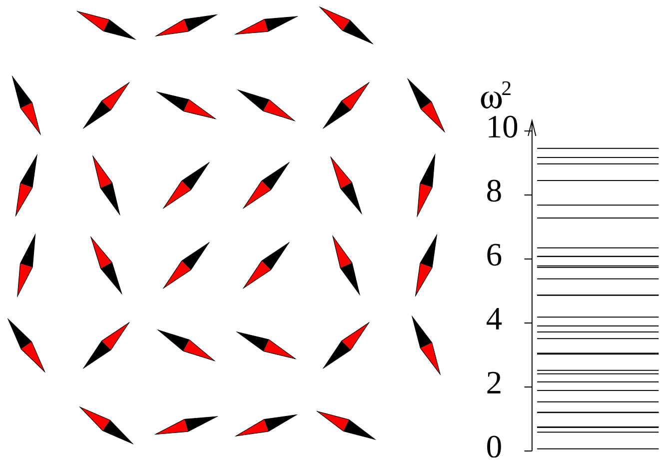
$E_5 = -68.28387$ (71 mal) $\omega_1^2 = 0.19401$



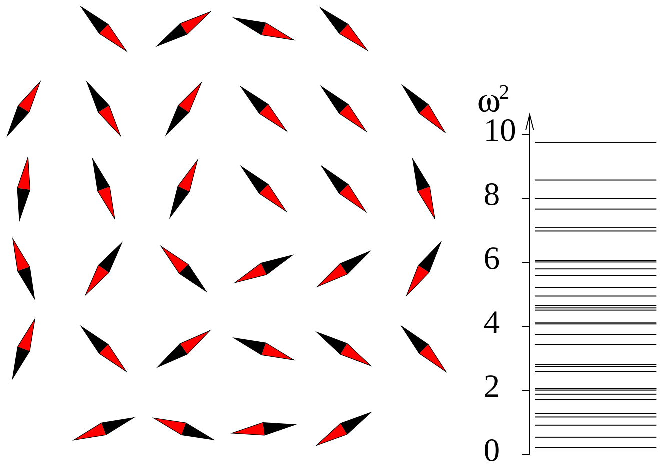
$E_6 = -67.55240$ (106 mal) $\omega_1^2 = 0.00445$



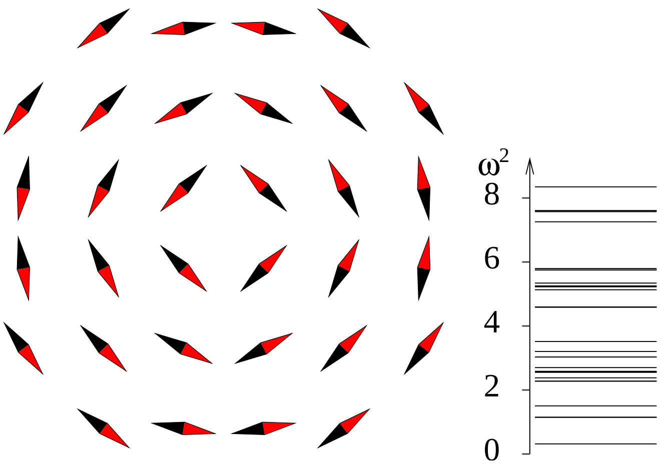
$E_7 = -67.54133$ (45 mal) $\omega_1^2 = 0.02121$



$E_{10} = -66.92245$ (5 mal) $\omega_1^2 = 0.06746$

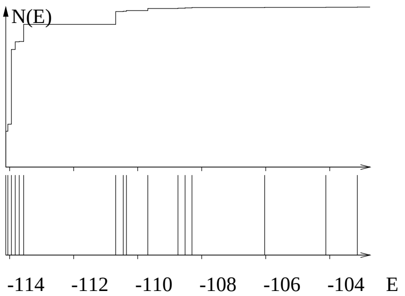


$E_{11} = -66.41400$ (5 mal) $\omega_1^2 = 0.21704$

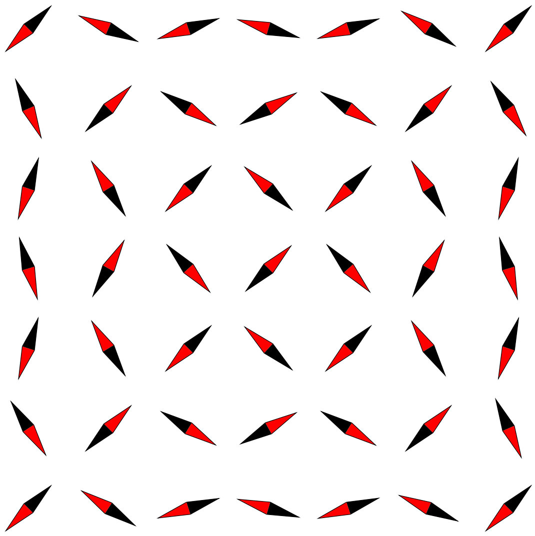


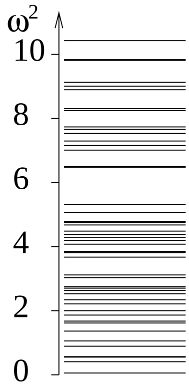
$E_{12} = -66.21307$ (1 mal) $\omega_1^2 = 0.31471$

Quadratisches Gitter (6,6,0)

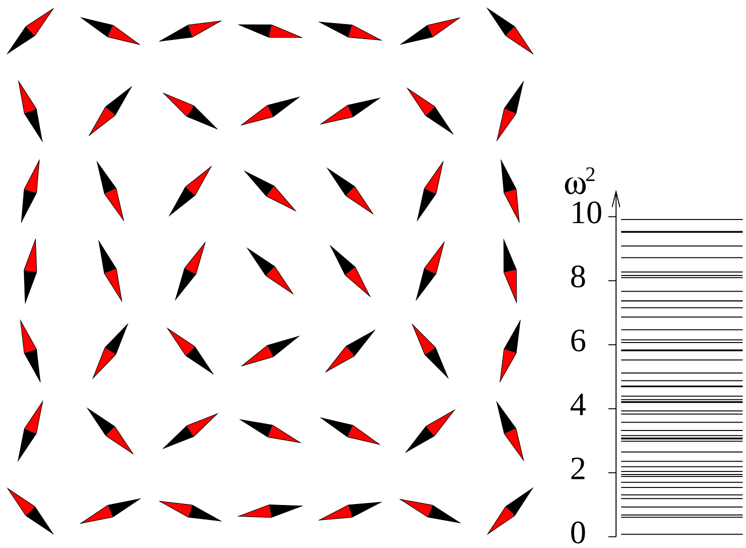


Anzahl Gitterpunkte: 49, Gefundene Energie-Niveaus: 16, Läufe: 1000

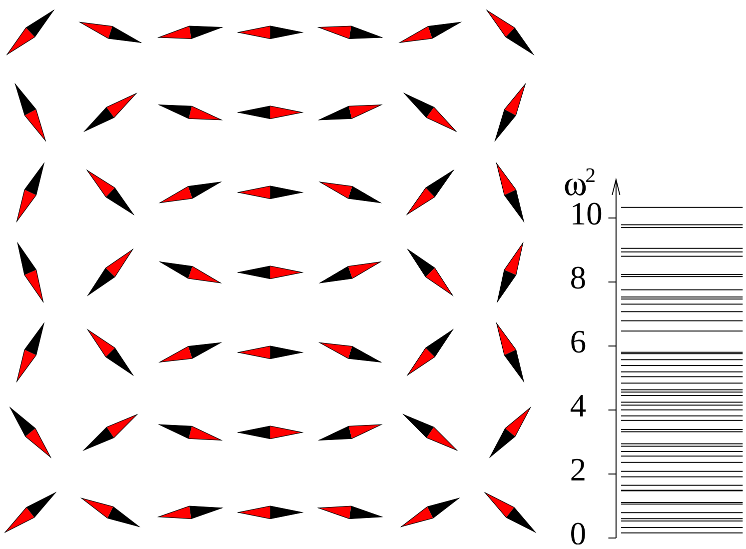




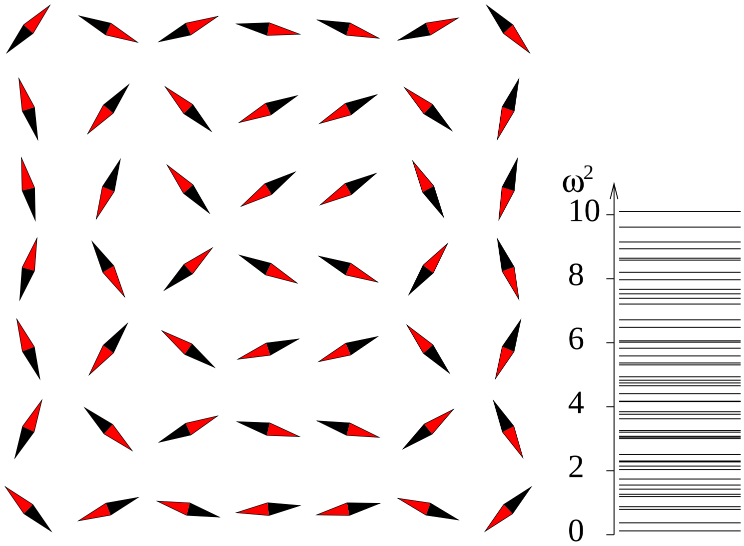
$E_1 = -114.12293$ (224 mal) $\omega_1^2 = 0.05603$



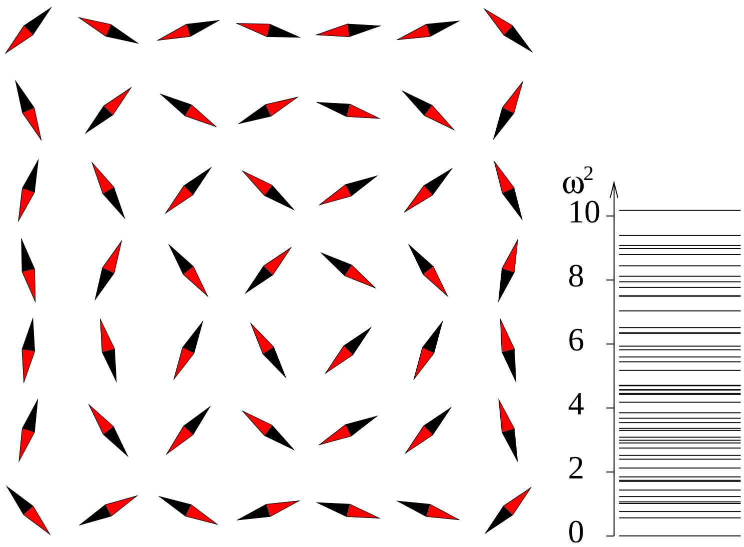
$E_2 = -114.05742$ (44 mal) $\omega_1^2 = 0.07490$



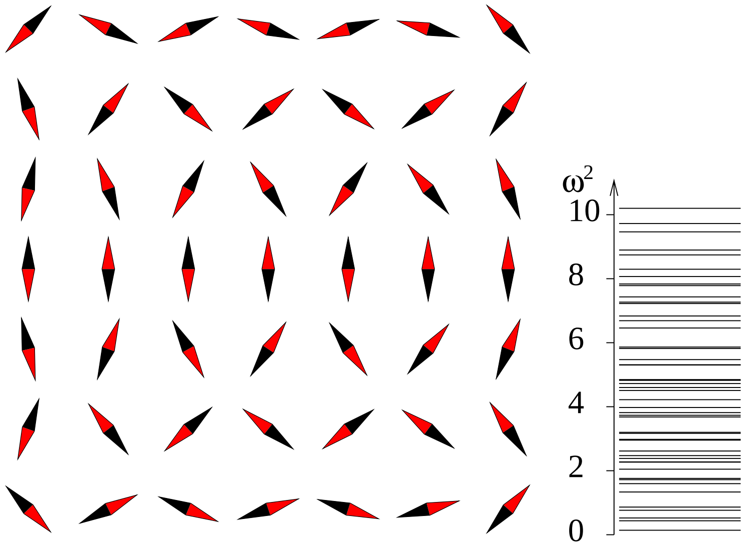
$E_3 = -113.94743$ (467 mal) $\omega_1^2 = 0.16142$



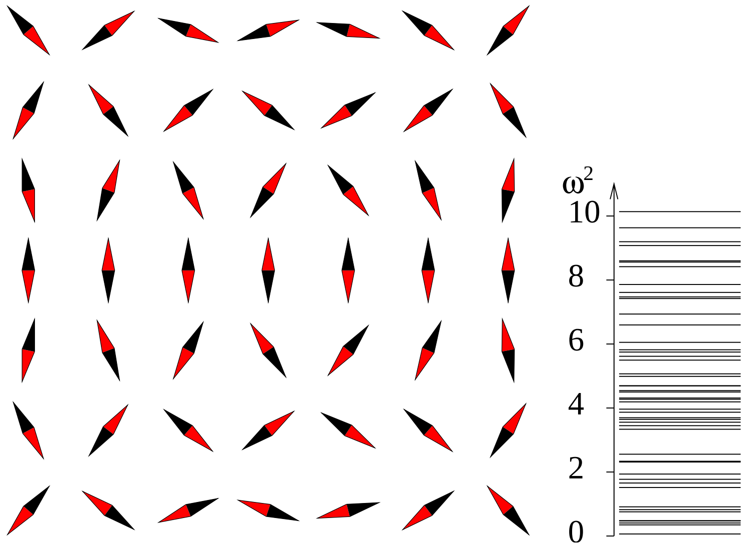
$E_4 = -113.82903$ (48 mal) $\omega_1^2 = 0.12108$



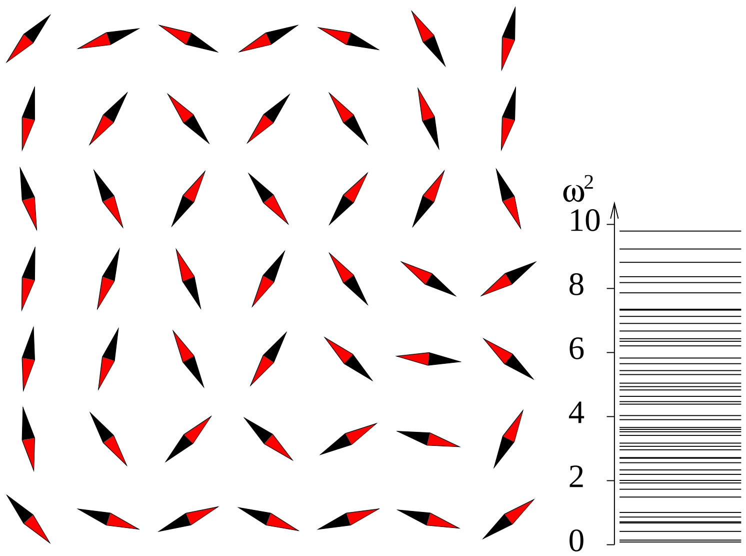
$E_5 = -113.70187$ (2 mal) $\omega_1^2 = 0.00349$



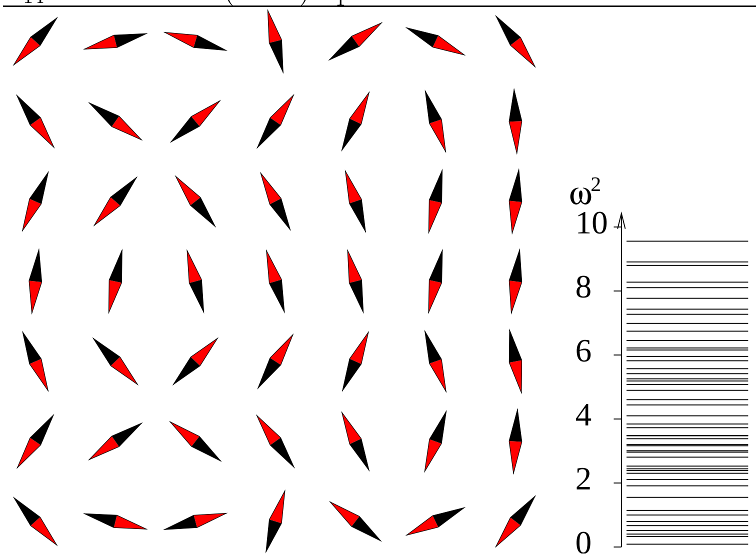
$E_6 = -113.56263$ (107 mal) $\omega_1^2 = 0.14196$



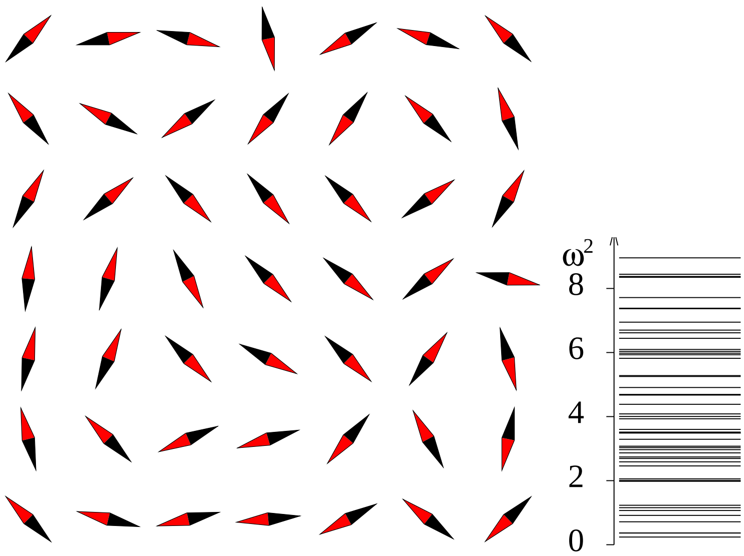
$E_7 = -110.68757$ (80 mal) $\omega_1^2 = 0.06439$



$E_{14} = -106.03299$ (1 mal) $\omega_1^2 = 0.08246$

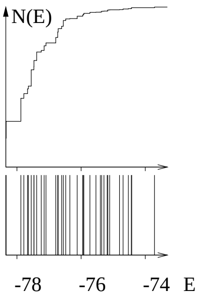


$E_{15} = -104.12378$ (1 mal) $\omega_1^2 = 0.08935$

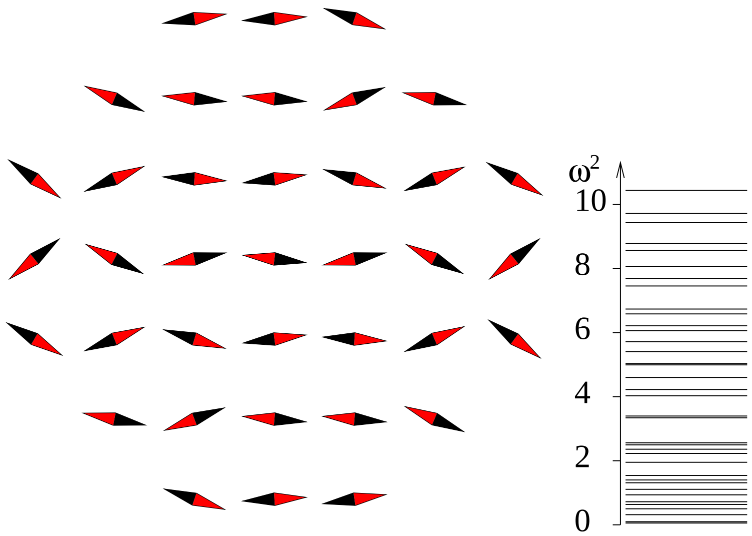


$E_{16} = -103.14014$ (1 mal) $\omega_1^2 = 0.23801$

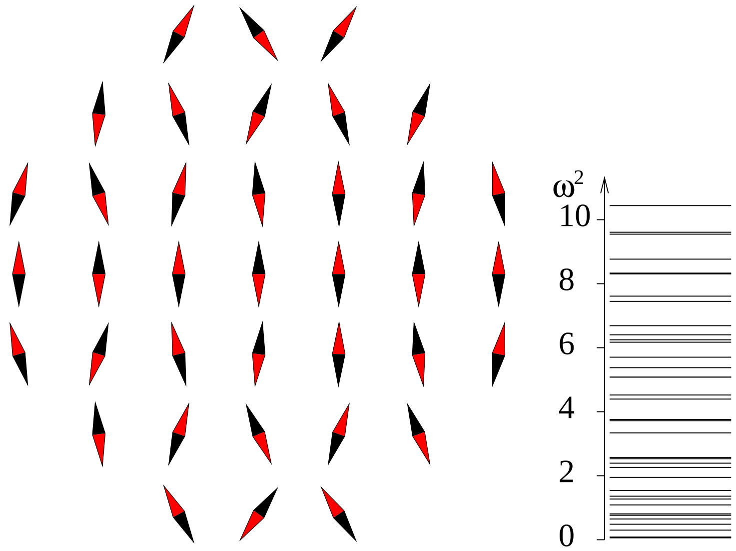
Quadratisches Gitter (6,6,2)



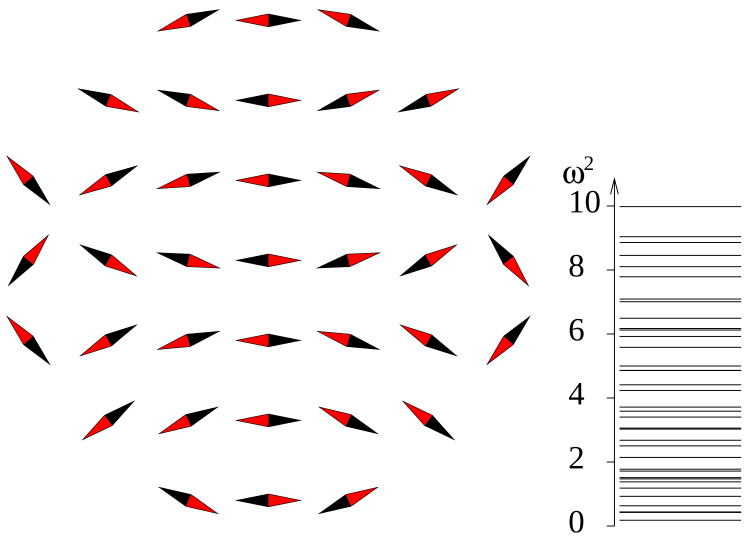
Anzahl Gitterpunkte: 37, Gefundene Energie-Niveaus: 38, Läufe: 1000



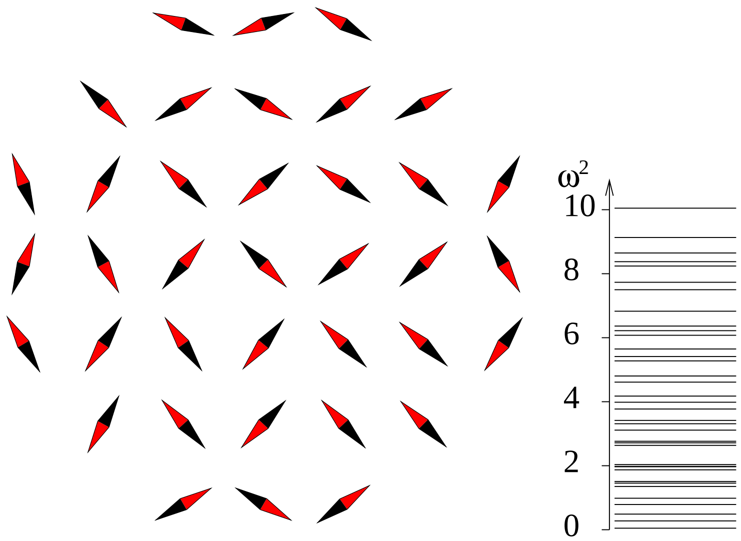
$E_1 = -78.34768$ (181 mal) $\omega_1^2 = 0.05631$



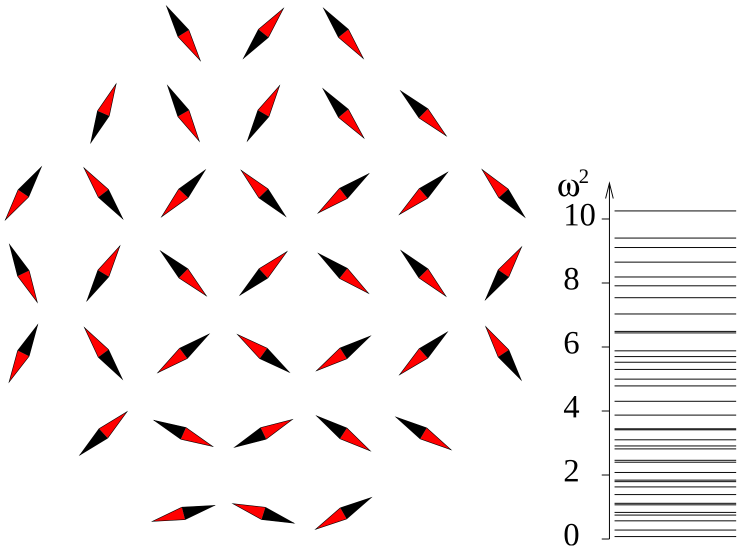
$E_2 = -78.33760$ (105 mal) $\omega_1^2 = 0.06028$



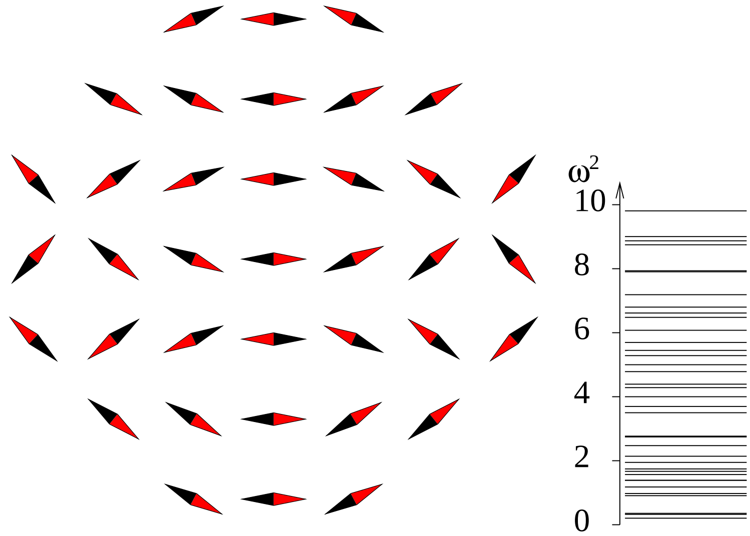
$E_3 = -77.87648$ (144 mal) $\omega_1^2 = 0.18184$



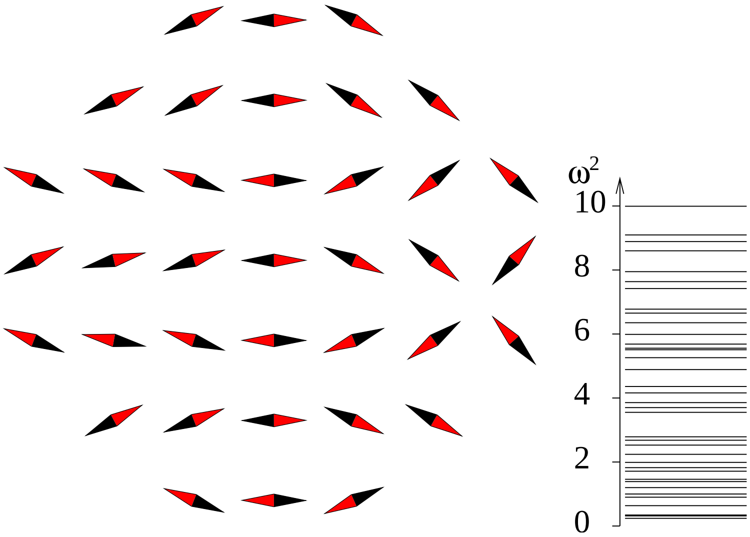
$E_4 = -77.78630$ (29 mal) $\omega_1^2 = 0.04665$



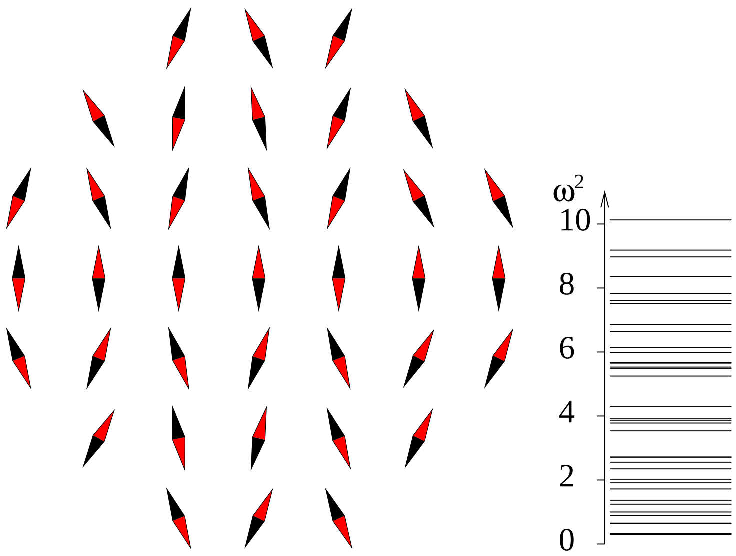
$E_5 = -77.66979$ (30 mal) $\omega_1^2 = 0.07708$



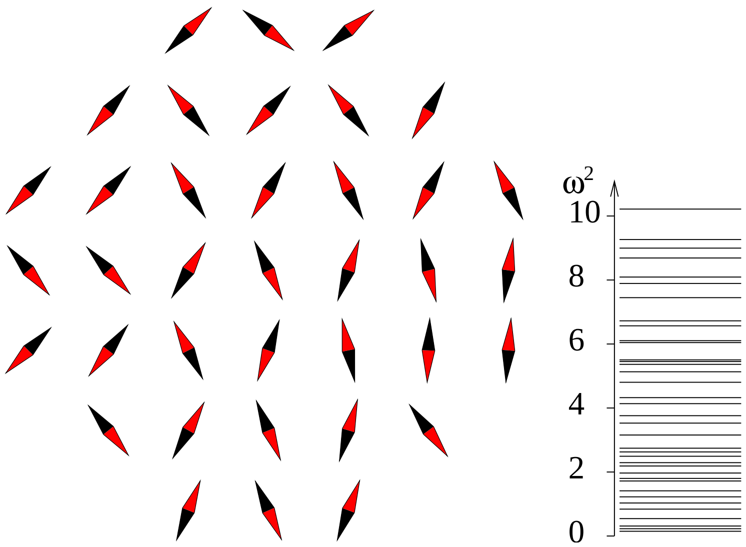
$E_6 = -77.64568$ (17 mal) $\omega_1^2 = 0.20442$



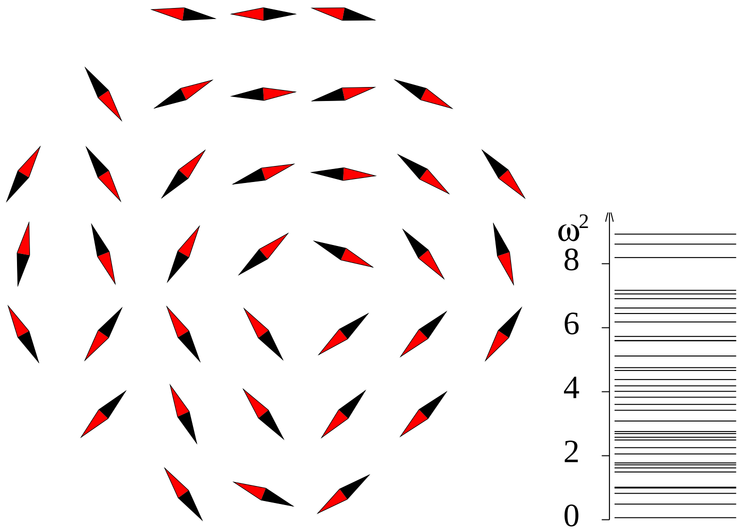
$E_7 = -77.55549$ (102 mal) $\omega_1^2 = 0.24096$



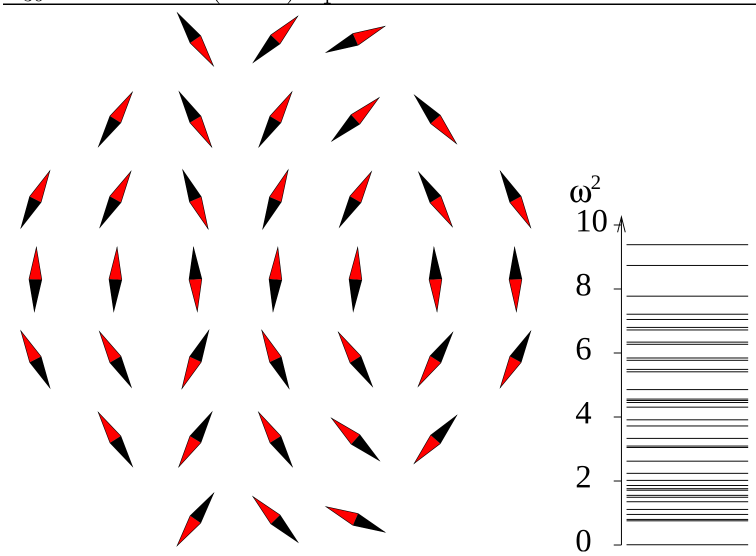
$E_9 = -77.47059$ (37 mal) $\omega_1^2 = 0.29063$



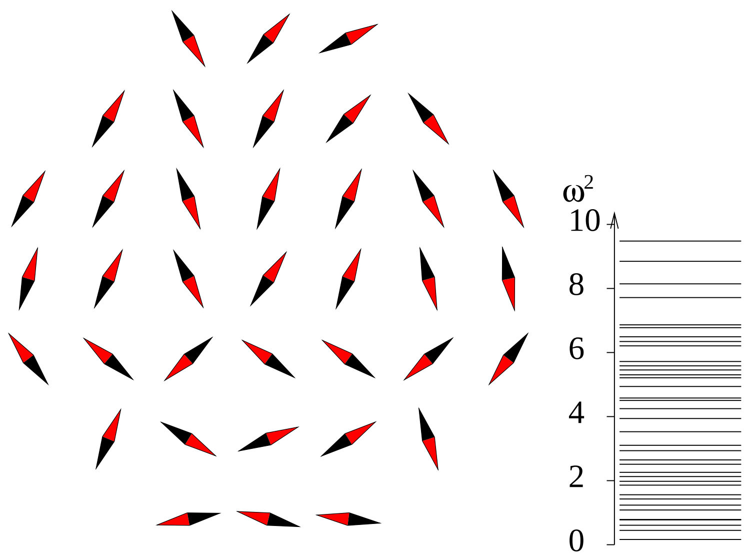
$E_{10} = -77.38554$ (53 mal) $\omega_1^2 = 0.14852$



$E_{36} = -74.43492$ (5 mal) $\omega_1^2 = 0.06324$

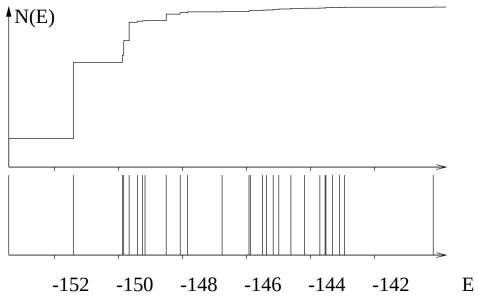


$E_{37} = -74.42390$ (1 mal) $\omega_1^2 = 0.00932$

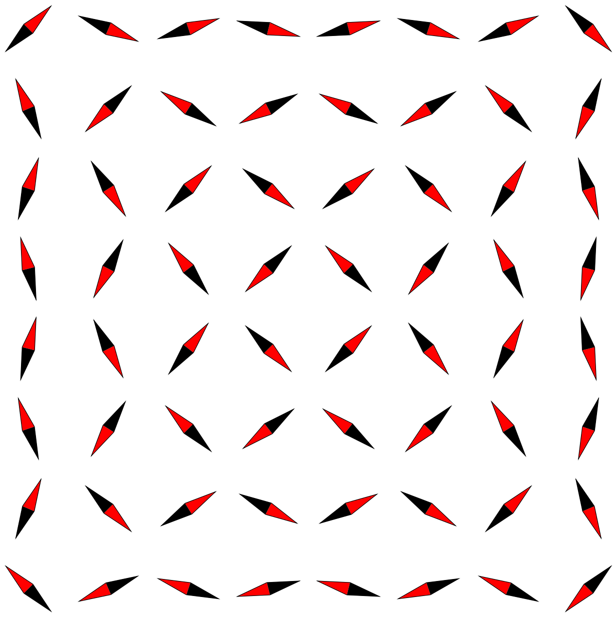


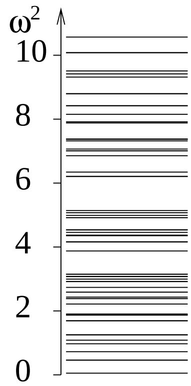
$E_{38} = -73.71283$ (4 mal) $\omega_1^2 = 0.16358$

Quadratisches Gitter (7,7,0)

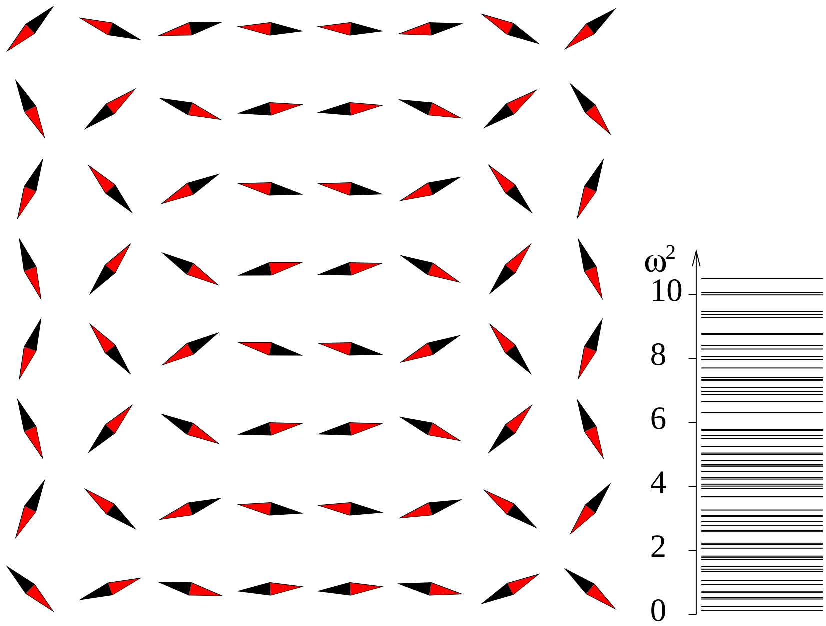


Anzahl Gitterpunkte: 64, Gefundene Energie-Niveaus: 27, Läufe: 1000

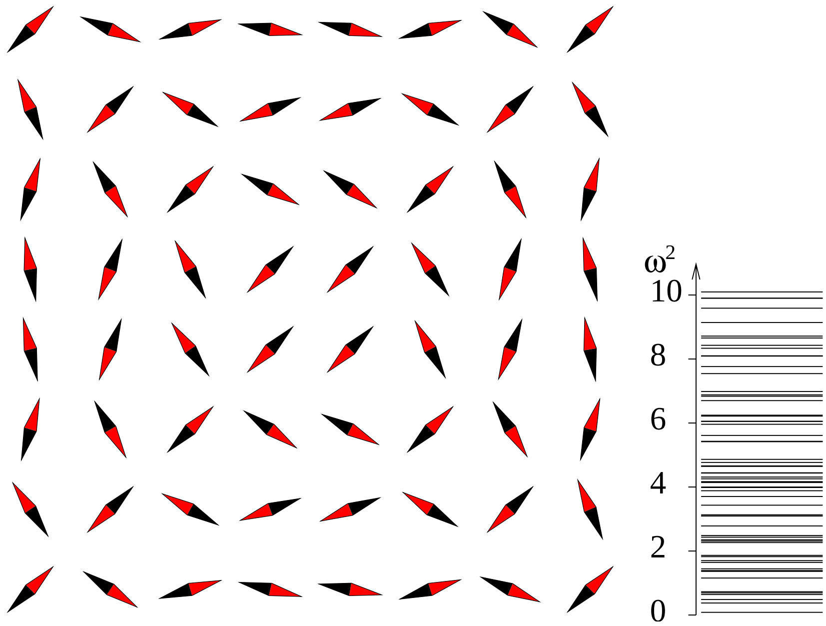




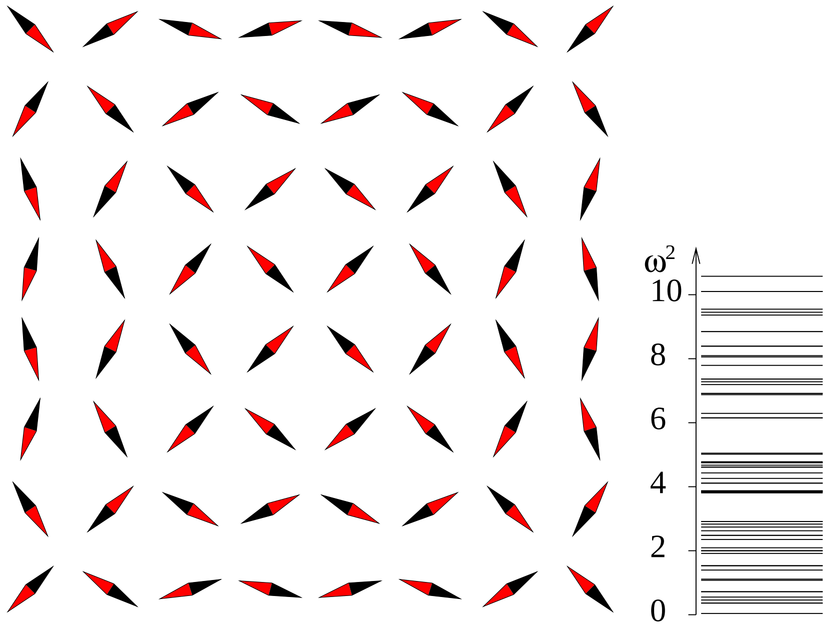
$E_1 = -153.43128$ (178 mal) $\omega_1^2 = 0.05387$



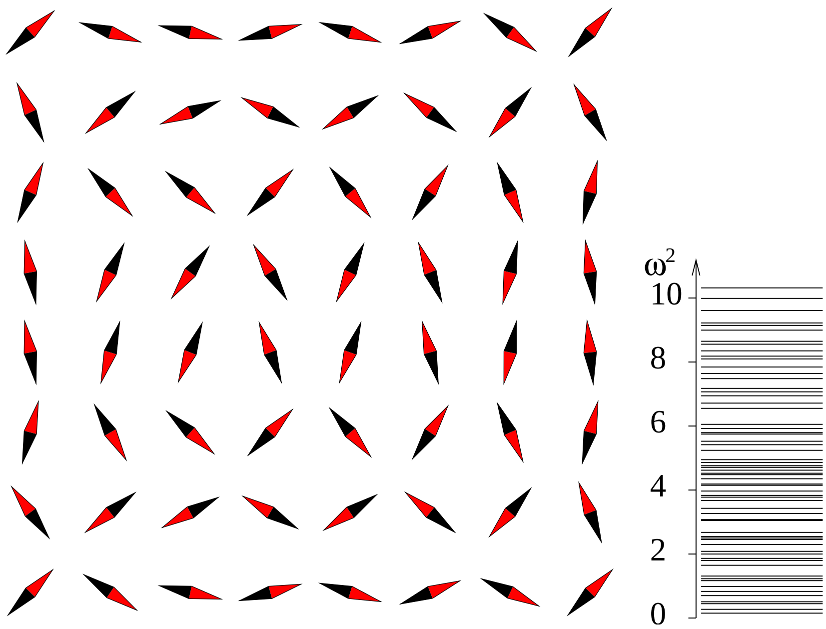
$E_2 = -151.41534$ (476 mal) $\omega_1^2 = 0.13276$



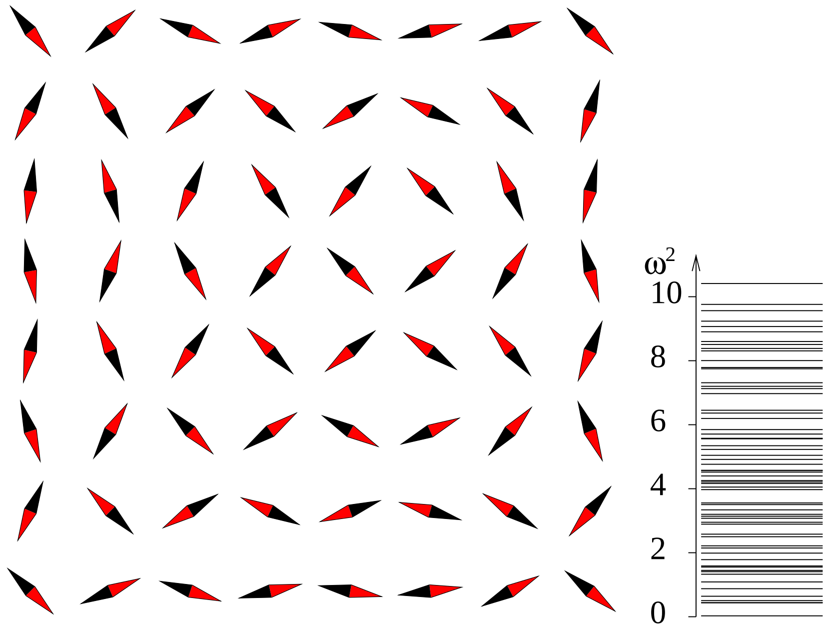
$E_3 = -149.88188$ (45 mal) $\omega_1^2 = 0.08297$



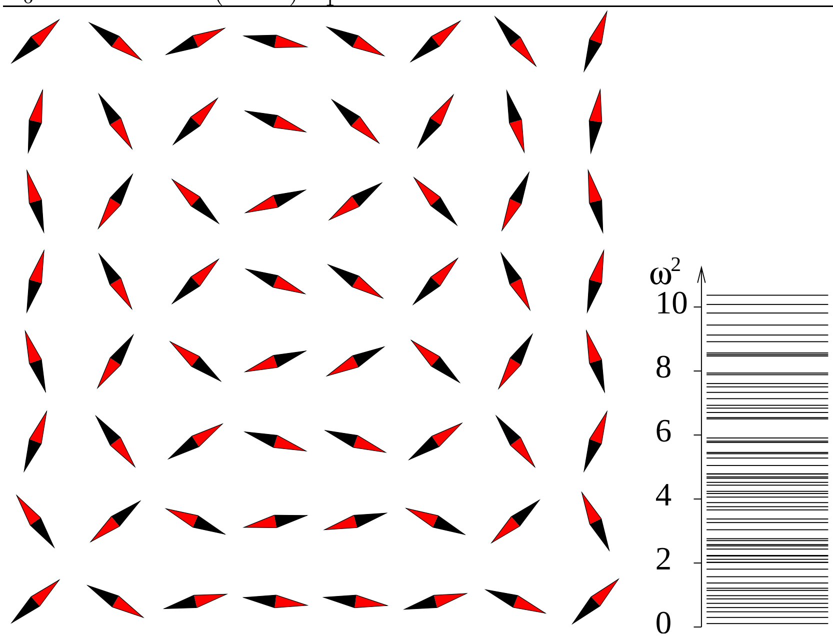
$E_4 = -149.83812$ (91 mal) $\omega_1^2 = 0.03967$



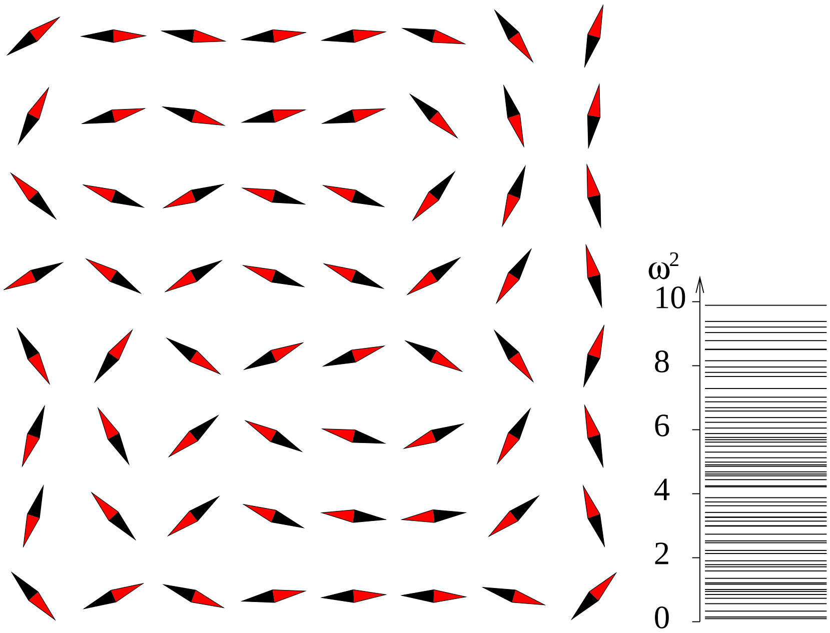
$E_5 = -149.67039$ (115 mal) $\omega_1^2 = 0.15283$



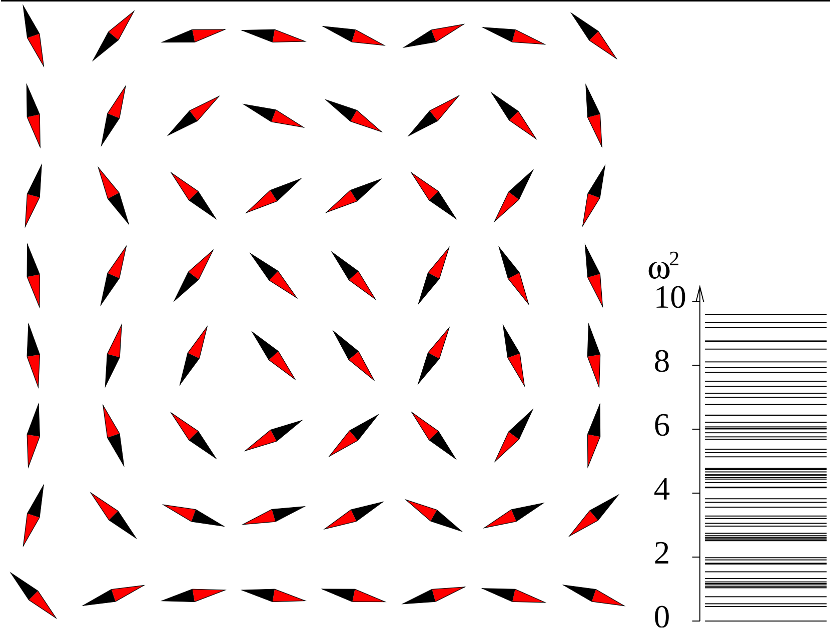
$E_6 = -149.41598$ (7 mal) $\omega_1^2 = 0.02808$



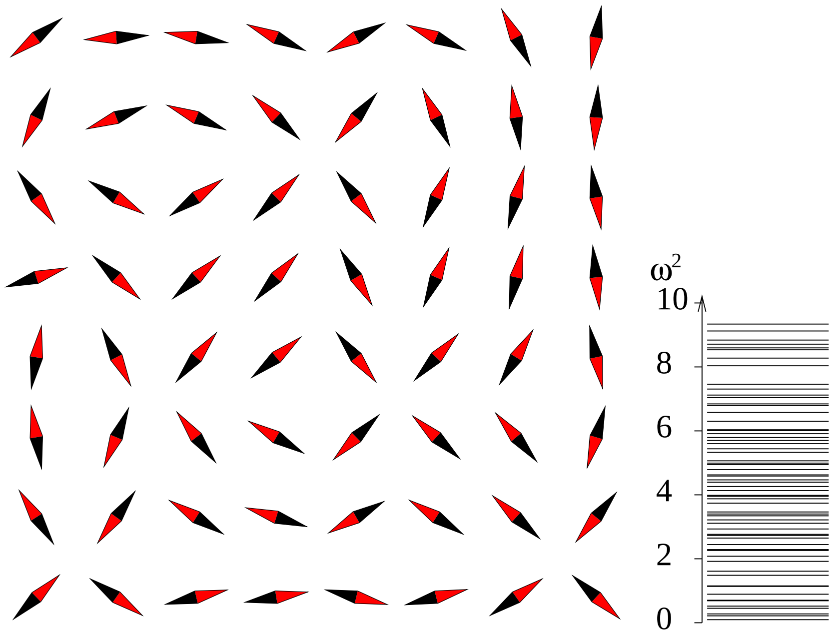
$E_9 = -148.51500$ (41 mal) $\omega_1^2 = 0.10805$



$E_{25} = -143.10130$ (1 mal) $\omega_1^2 = 0.09646$

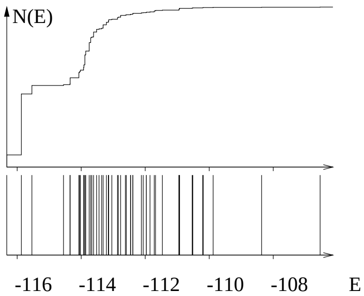


$E_{26} = -142.93864$ (1 mal) $\omega_1^2 = 0.00065$

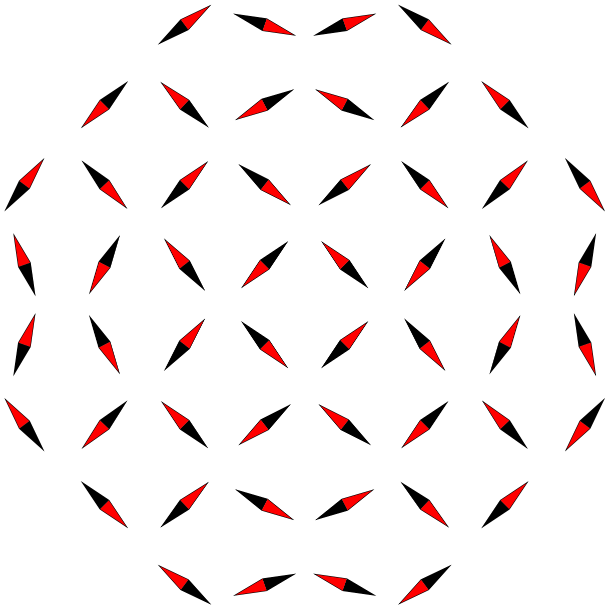


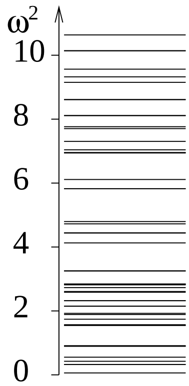
$E_{27} = -140.17146$ (1 mal) $\omega_1^2 = 0.09553$

Quadratisches Gitter (7,7,2)

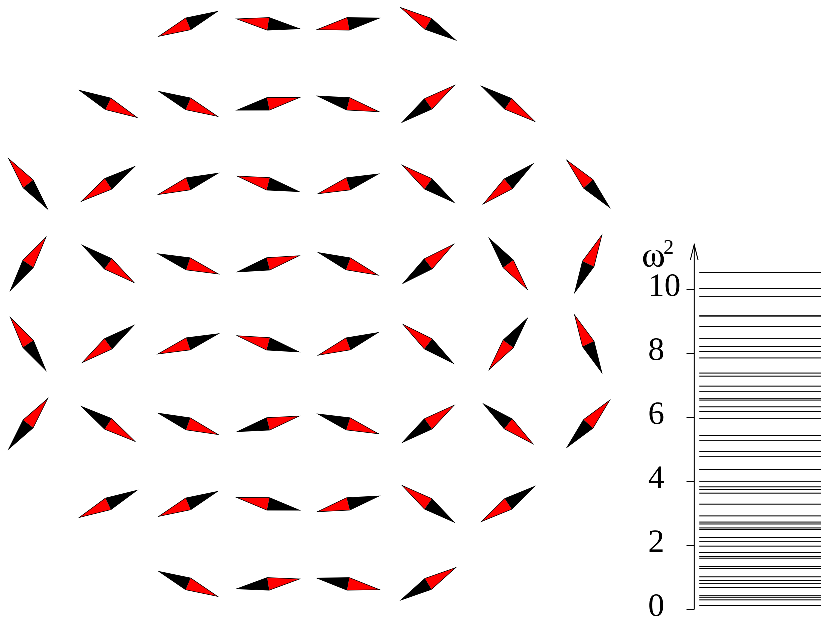


Anzahl Gitterpunkte: 52, Gefundene Energie-Niveaus: 54, Läufe: 1000

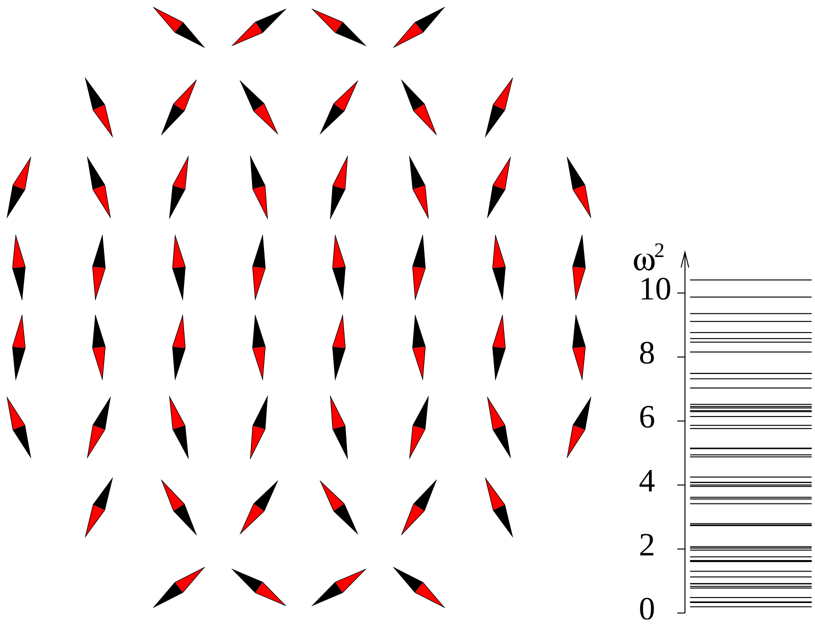




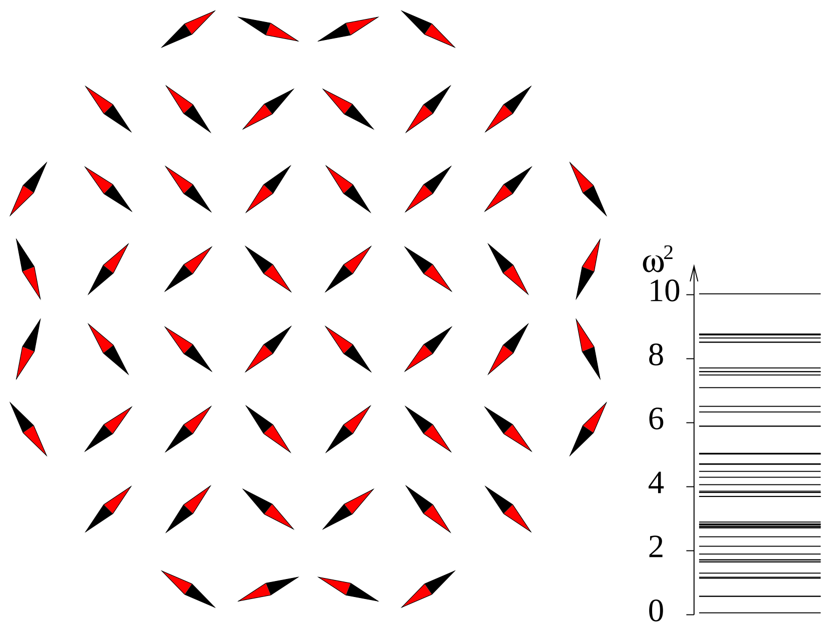
$E_1 = -116.32553$ (76 mal) $\omega_1^2 = 0.06081$



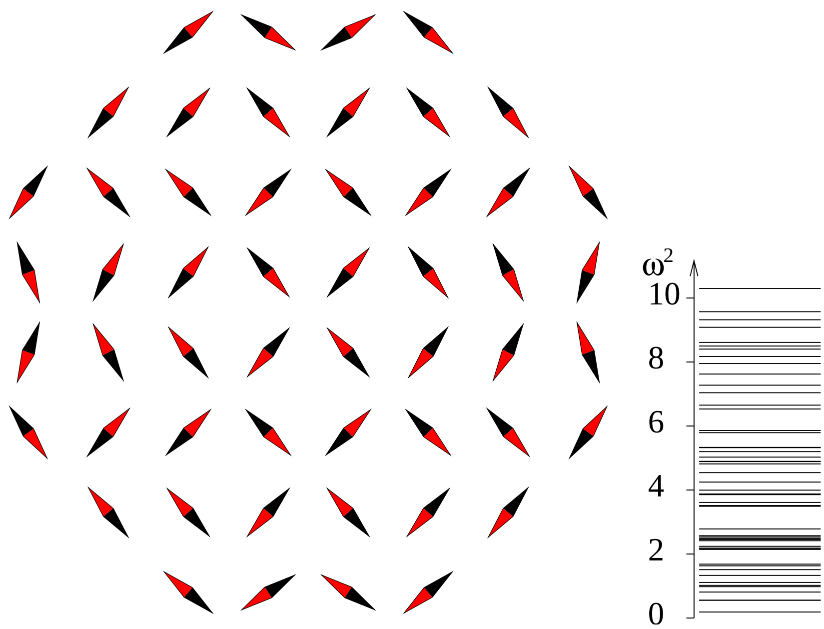
$E_2 = -115.87096$ (381 mal) $\omega_1^2 = 0.12488$



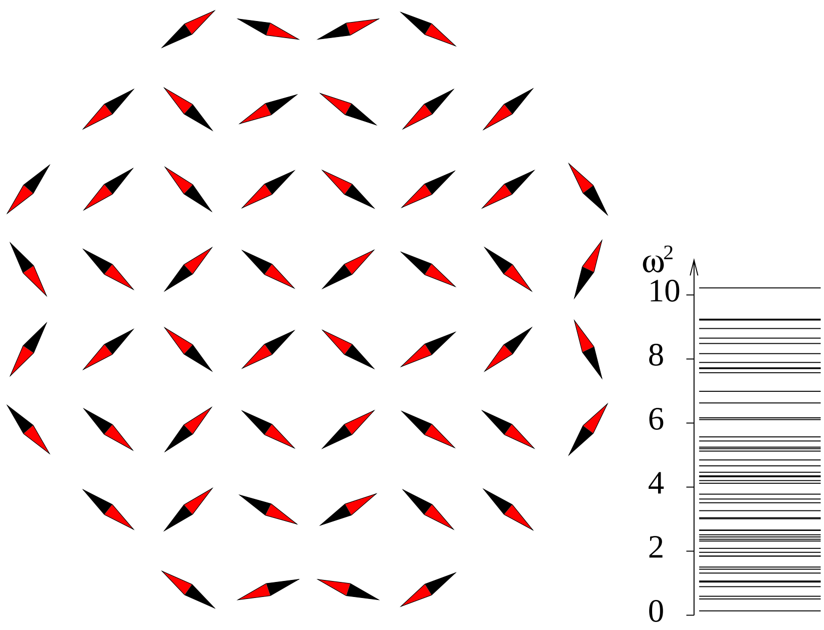
$E_3 = -115.54021$ (53 mal) $\omega_1^2 = 0.19774$



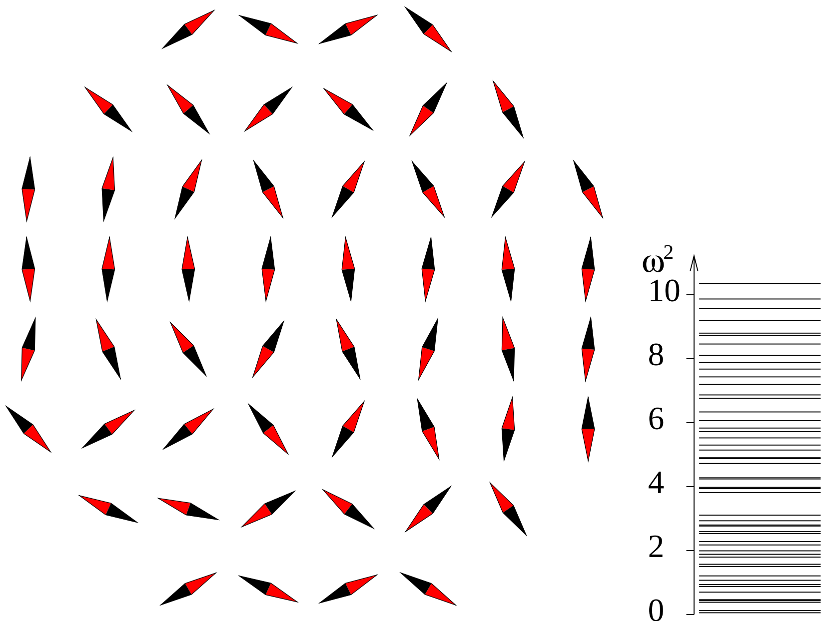
$E_4 = -114.55261$ (5 mal) $\omega_1^2 = 0.06044$



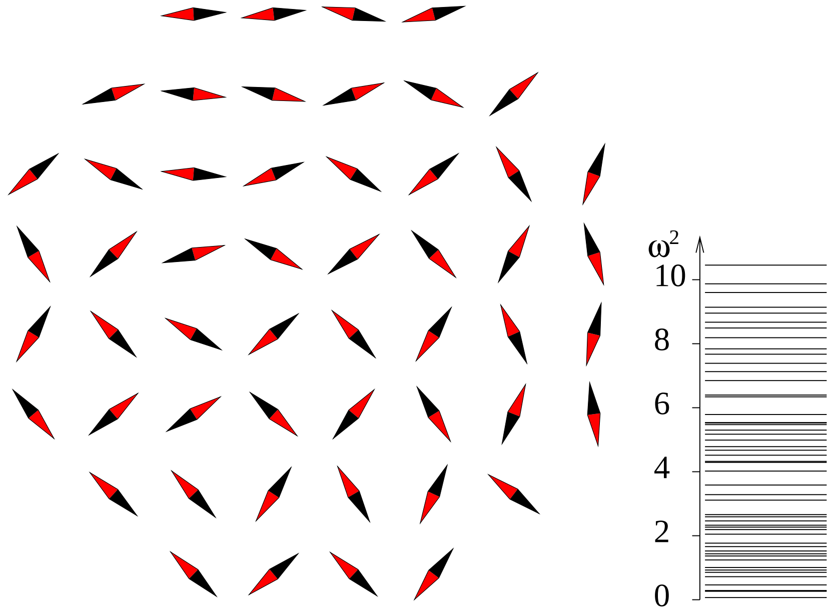
$E_5 = -114.34687$ (7 mal) $\omega_1^2 = 0.18746$



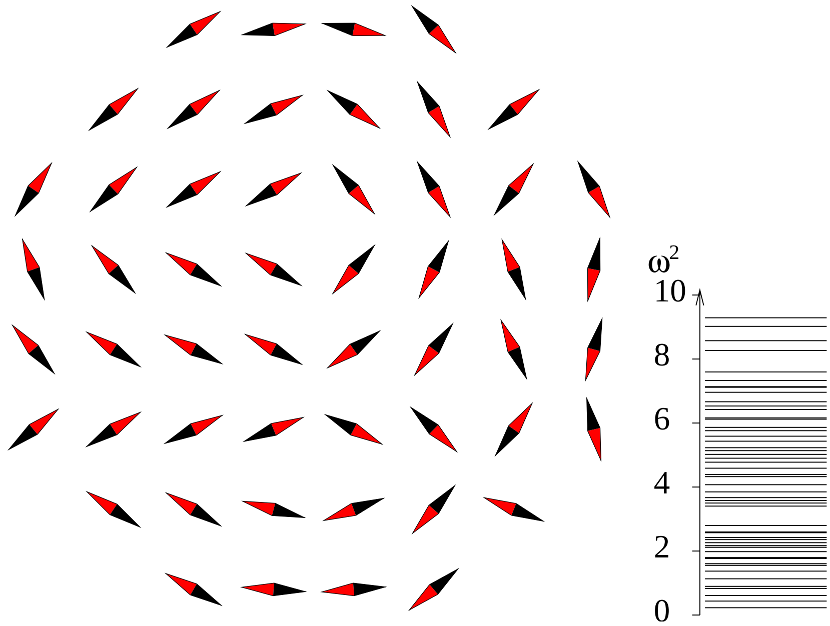
$E_6 = -114.34595$ (36 mal) $\omega_1^2 = 0.13423$



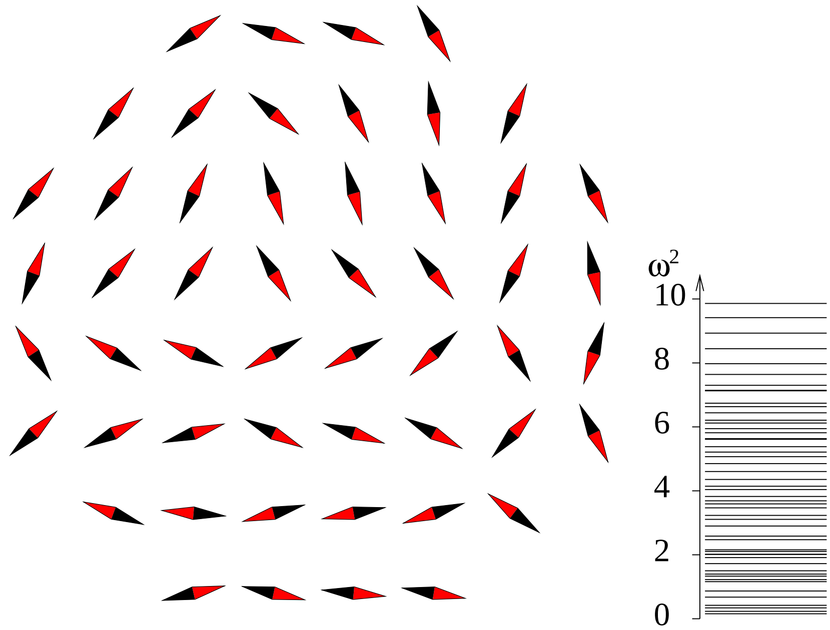
$E_{12} = -113.88624$ (62 mal) $\omega_1^2 = 0.05574$



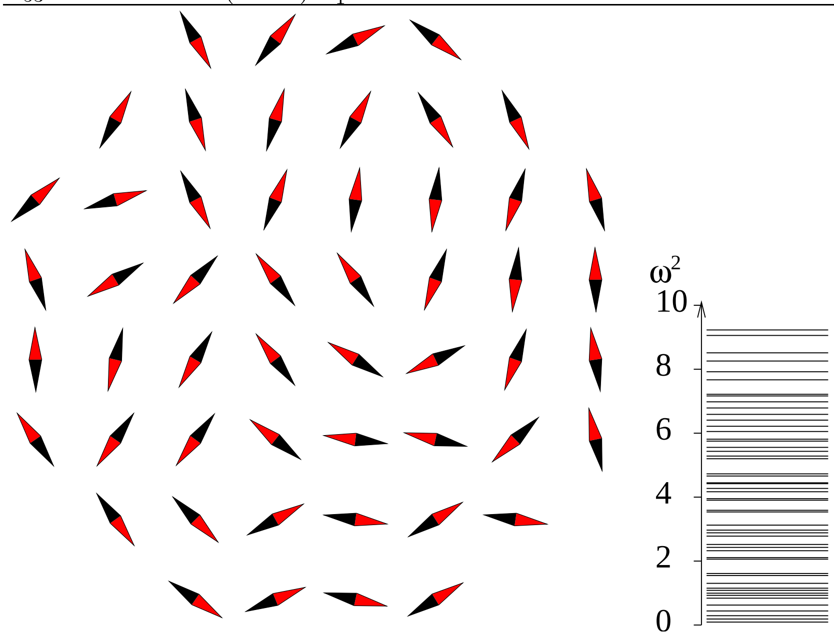
$E_{14} = -113.75137$ (53 mal) $\omega_1^2 = 0.06748$



$E_{52} = -109.87703$ (1 mal) $\omega_1^2 = 0.22725$

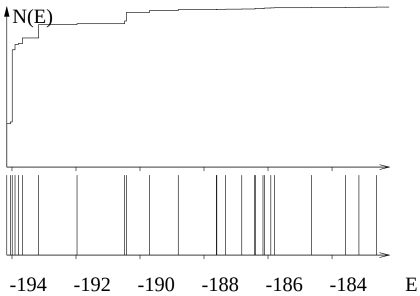


$E_{53} = -108.36311$ (1 mal) $\omega_1^2 = 0.15465$

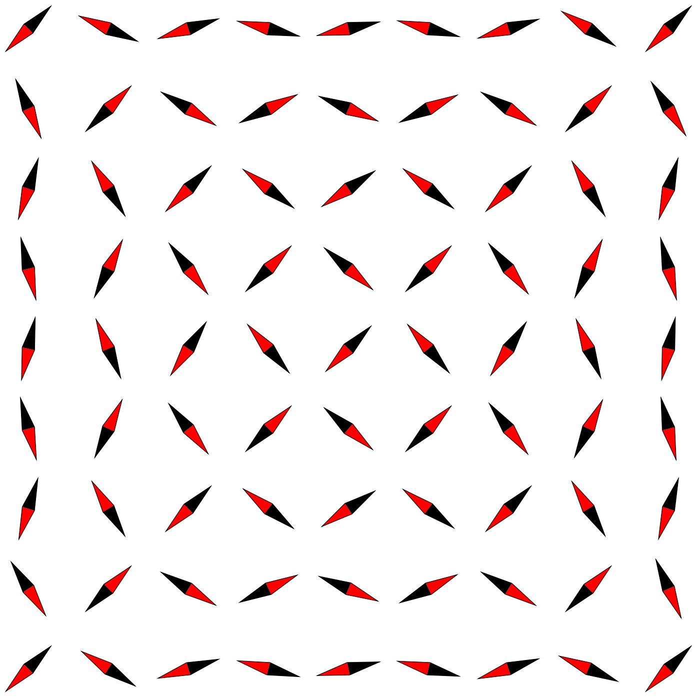


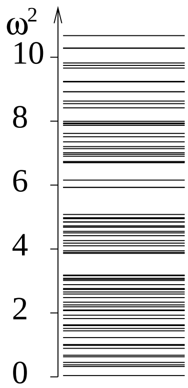
$E_{54} = -106.53592$ (1 mal) $\omega_1^2 = 0.09073$

Quadratisches Gitter (8,8,0)

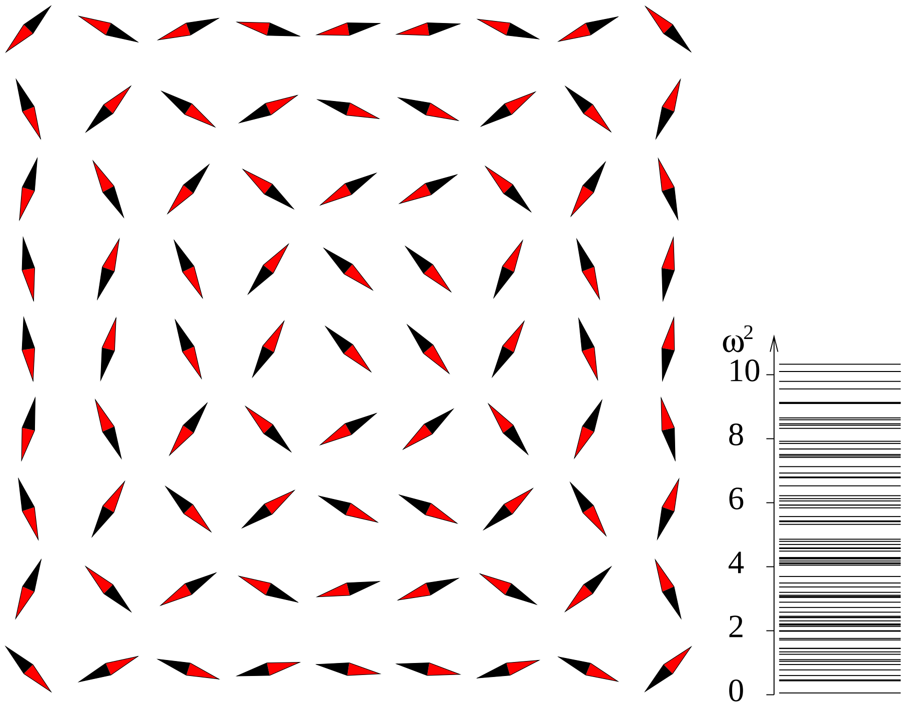


Anzahl Gitterpunkte: 81, Gefundene Energie-Niveaus: 26, Läufe: 1000

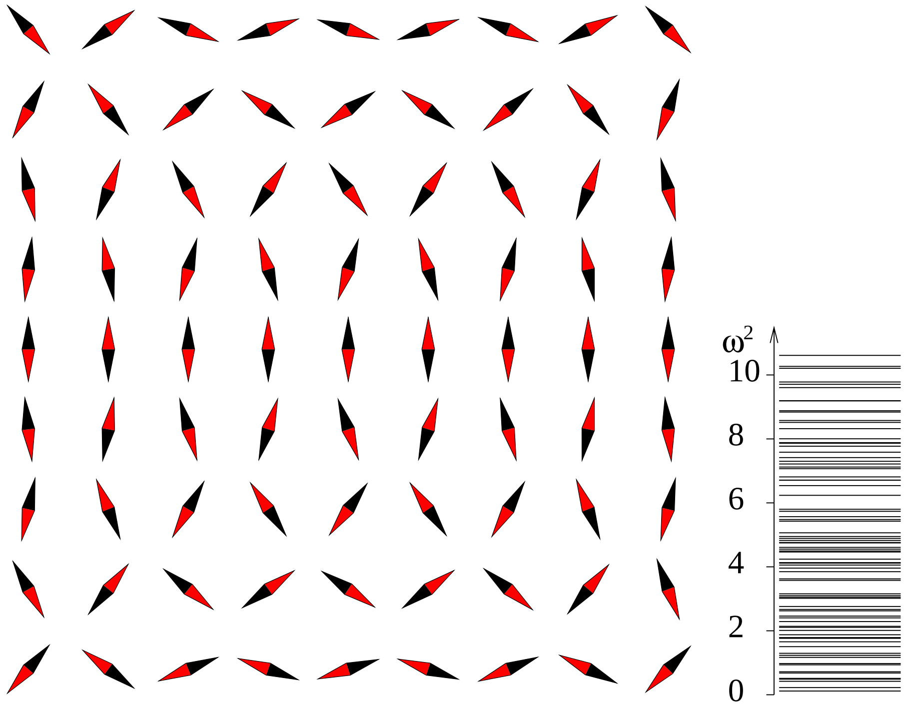




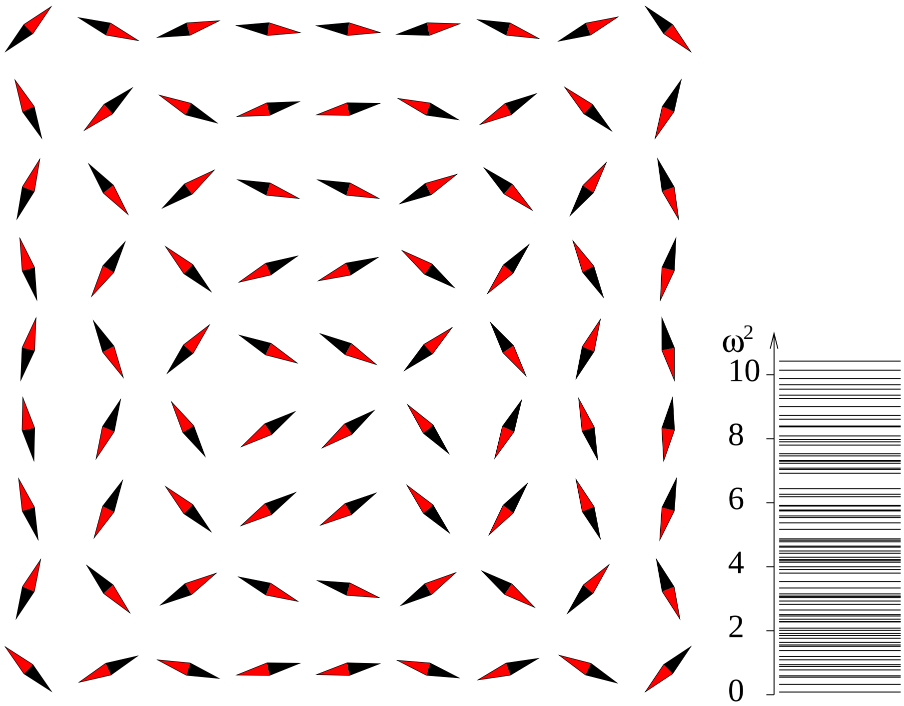
$E_1 = -194.16288$ (271 mal) $\omega_1^2 = 0.03860$



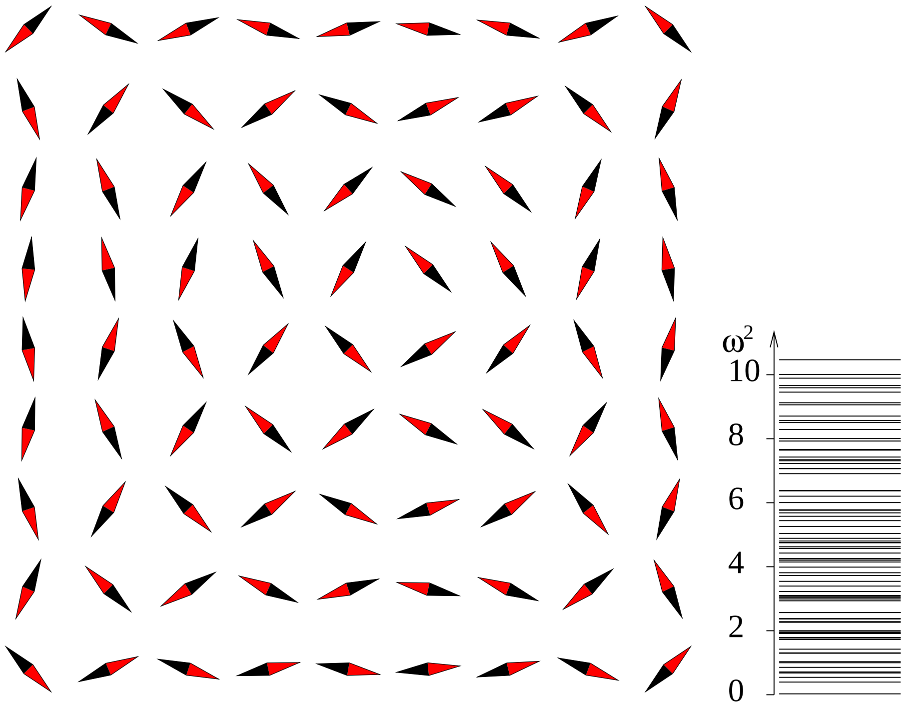
$E_2 = -194.05008$ (11 mal) $\omega_1^2 = 0.05593$



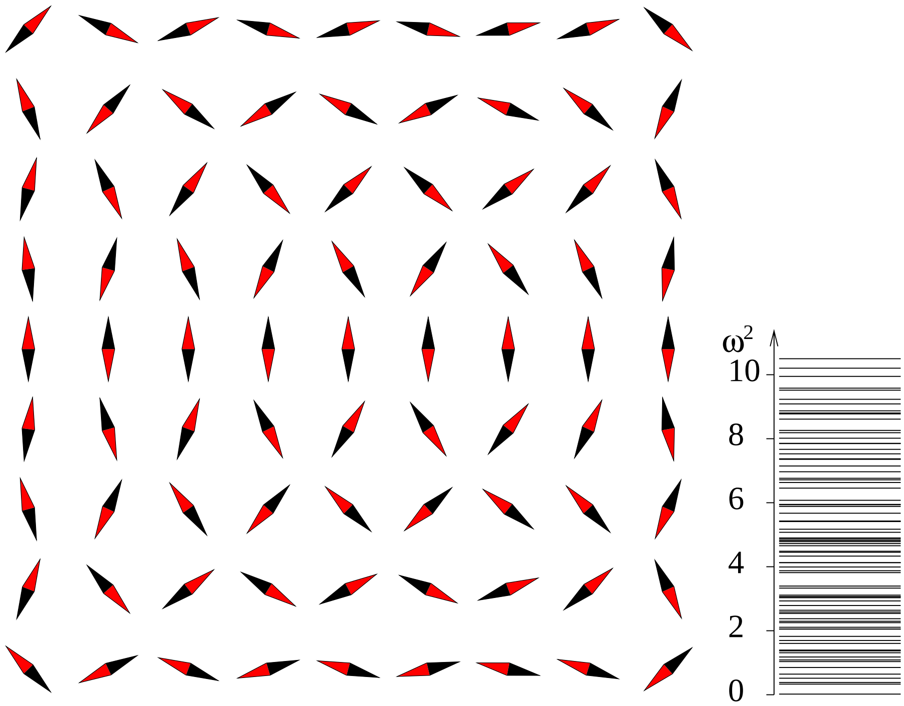
$E_3 = -193.99288$ (451 mal) $\omega_1^2 = 0.11700$



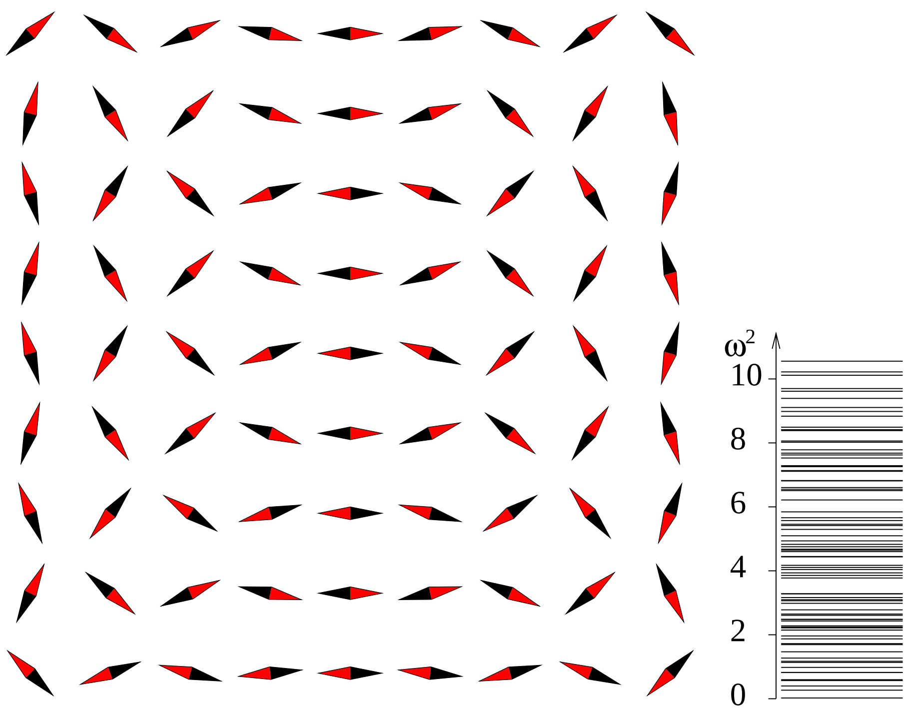
$E_4 = -193.90494$ (33 mal) $\omega_1^2 = 0.08252$



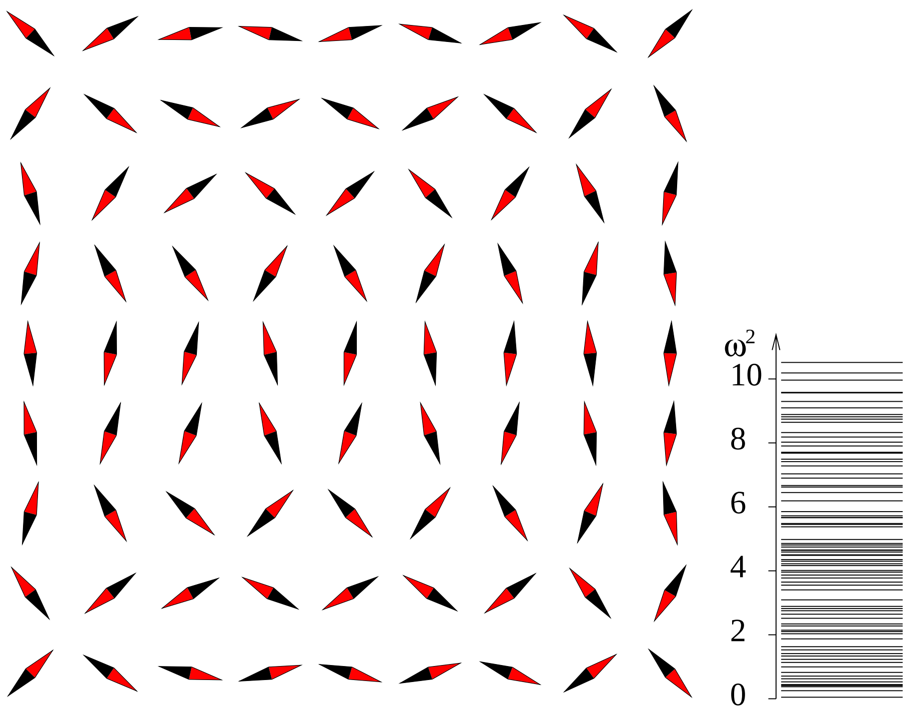
$E_5 = -193.80160$ (6 mal) $\omega_1^2 = 0.02908$



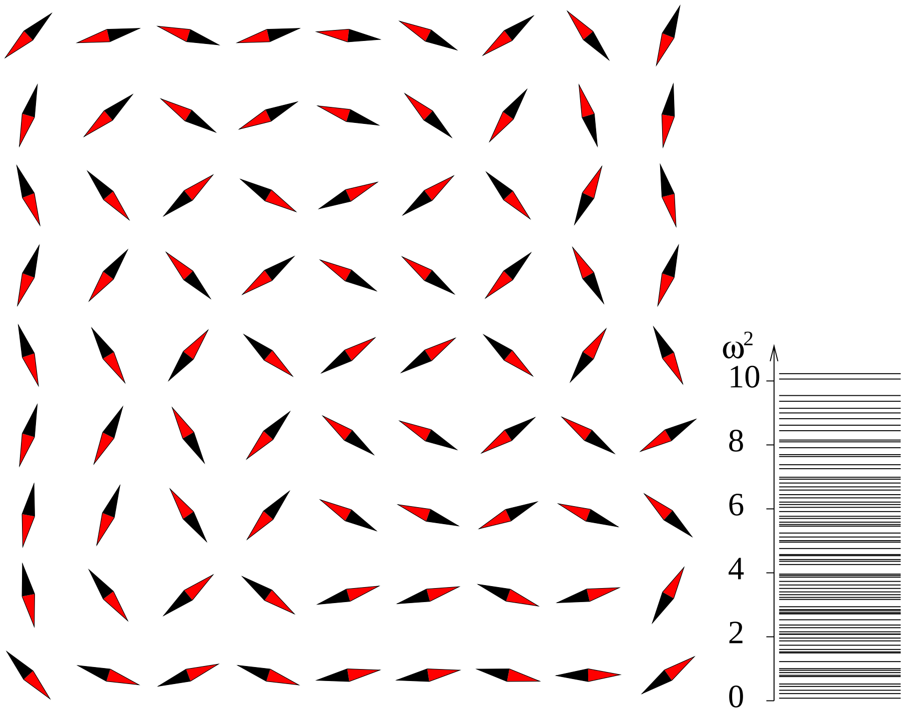
$E_6 = -193.67182$ (35 mal) $\omega_1^2 = 0.01917$



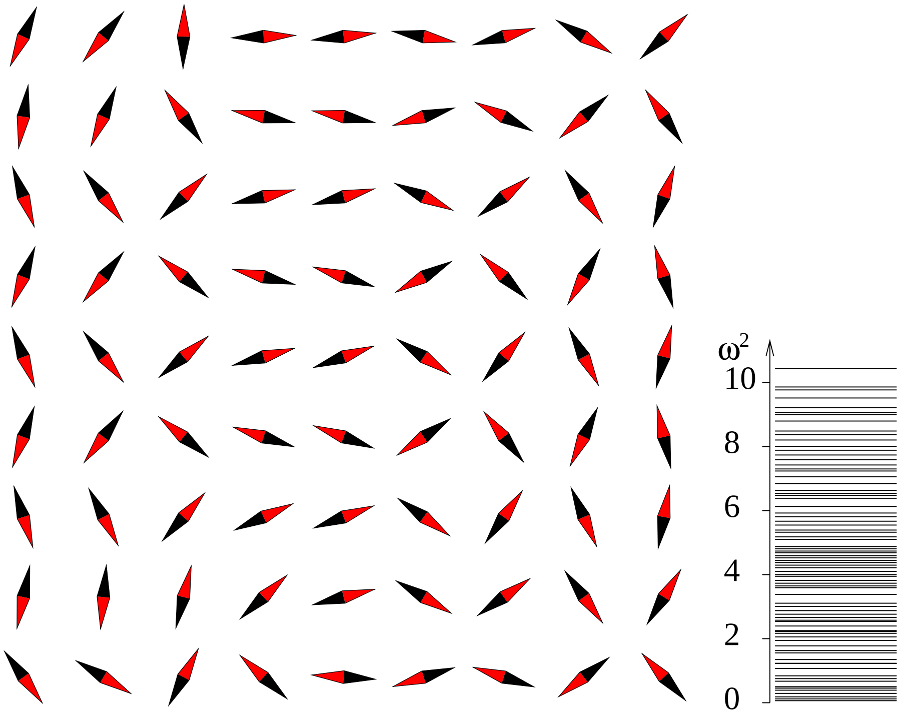
$E_7 = -193.16720$ (84 mal) $\omega_1^2 = 0.02422$



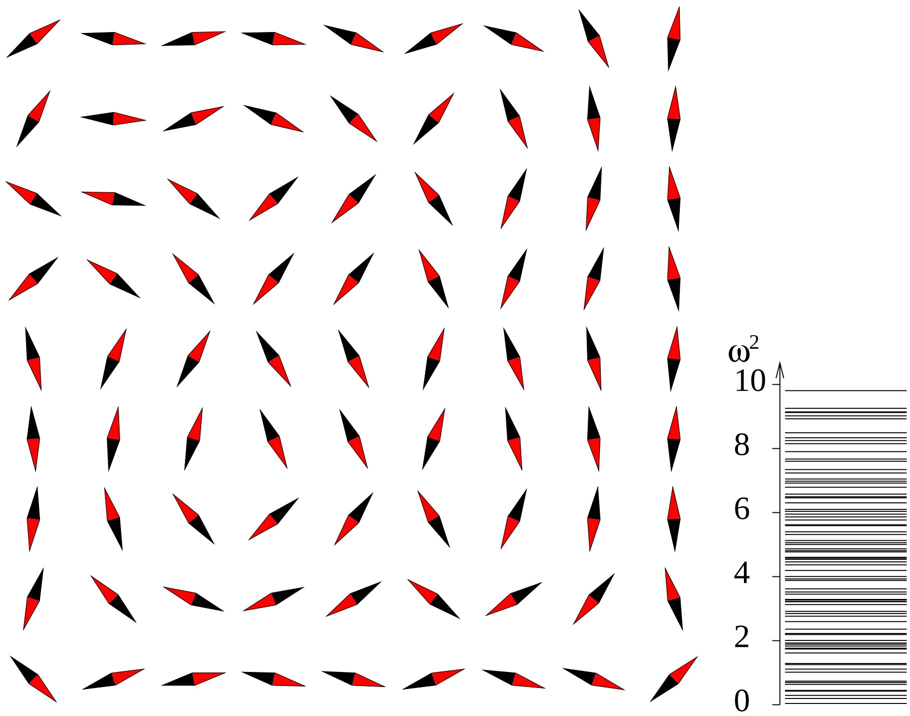
$E_{10} = -190.42498$ (53 mal) $\omega_1^2 = 0.04782$



$E_{24} = -183.58000$ (1 mal) $\omega_1^2 = 0.08050$

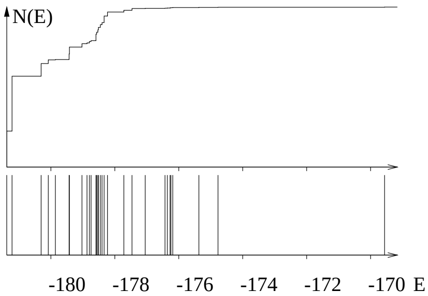


$E_{25} = -183.16121$ (1 mal) $\omega_1^2 = 0.06397$

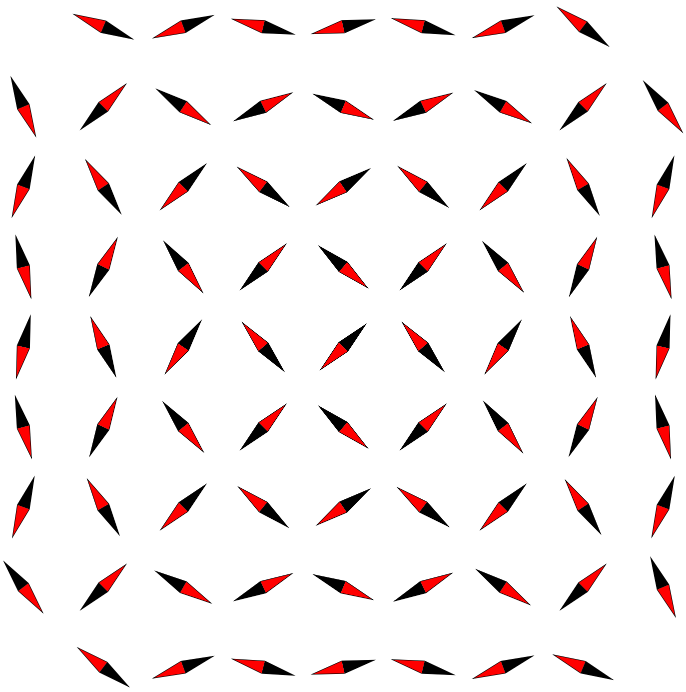


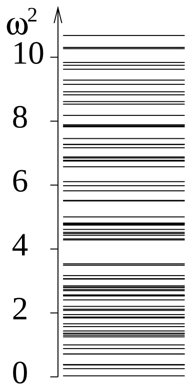
$E_{26} = -182.61562$ (1 mal) $\omega_1^2 = 0.04094$

Quadratisches Gitter (8,8,1)

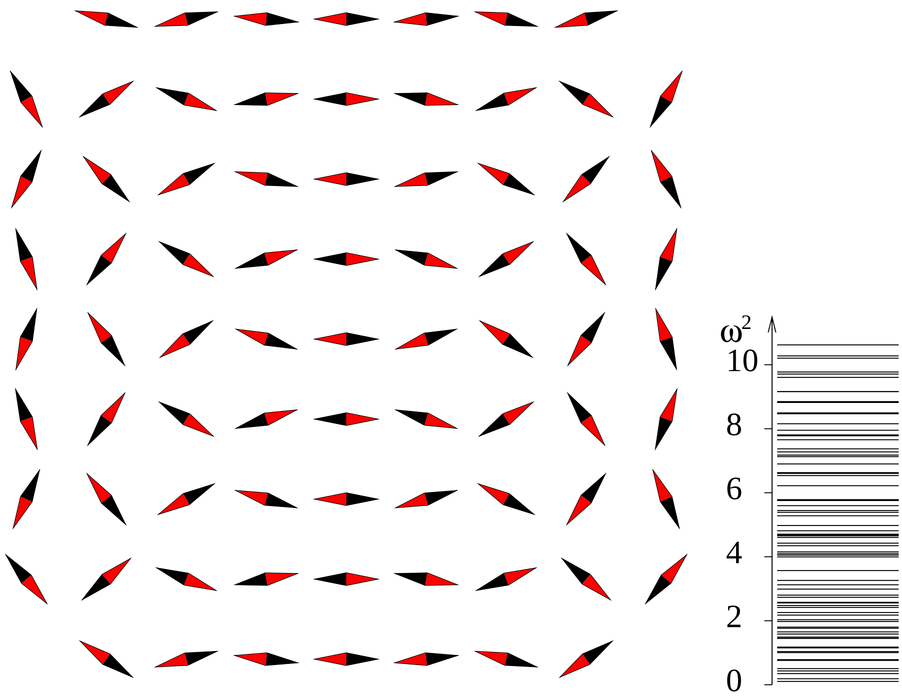


Anzahl Gitterpunkte: 77, Gefundene Energie-Niveaus: 30, Läufe: 1000

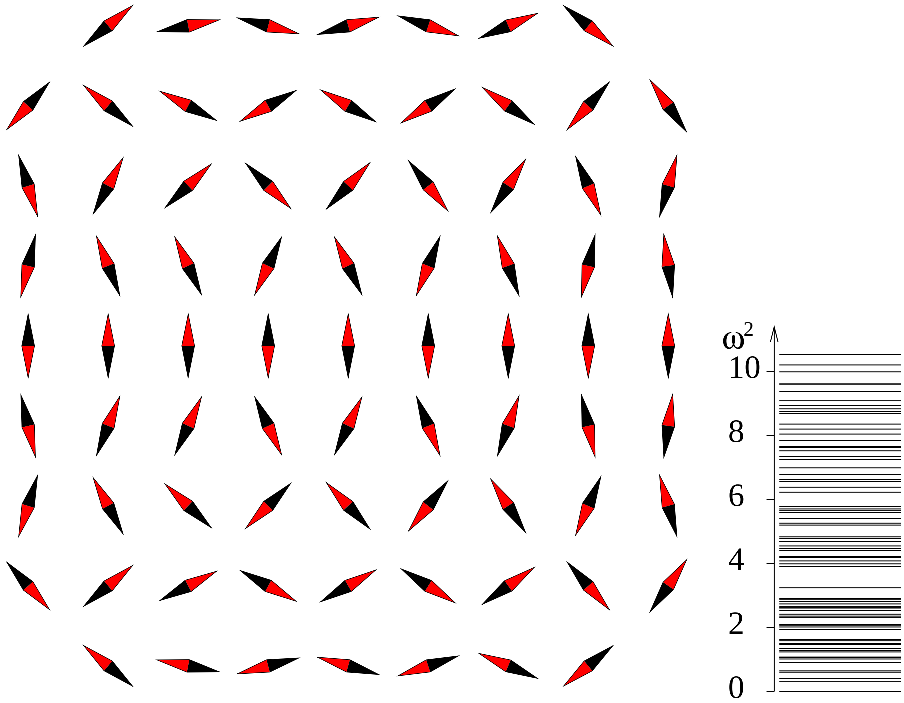




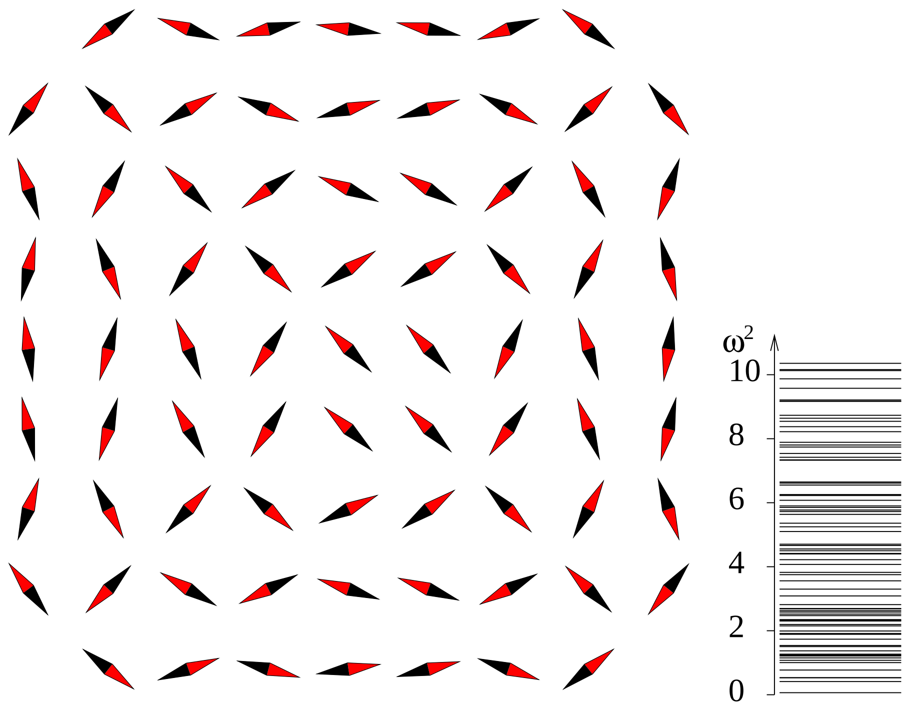
$E_1 = -181.38015$ (225 mal) $\omega_1^2 = 0.03051$



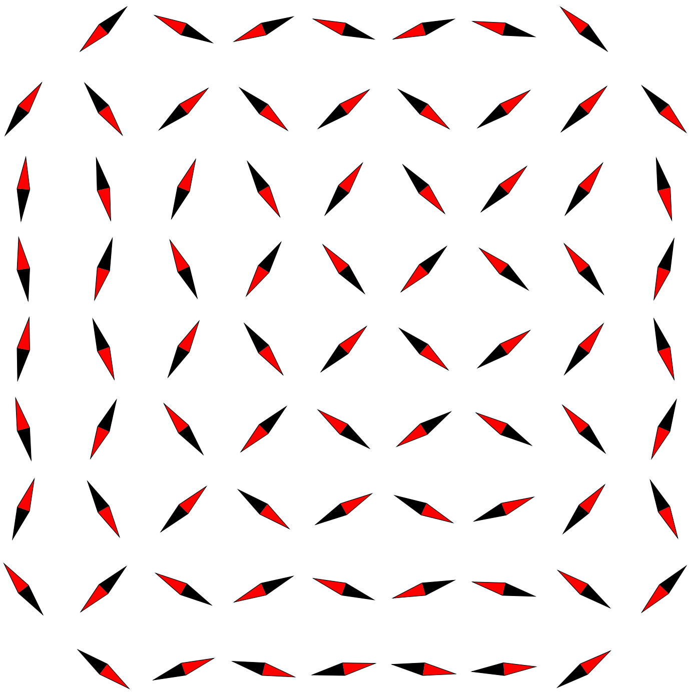
$E_2 = -181.21623$ (343 mal) $\omega_1^2 = 0.10598$

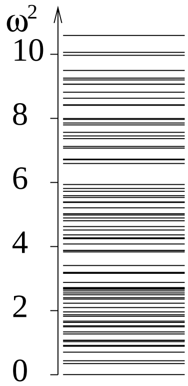


$E_3 = -180.30411$ (79 mal) $\omega_1^2 = 0.00466$

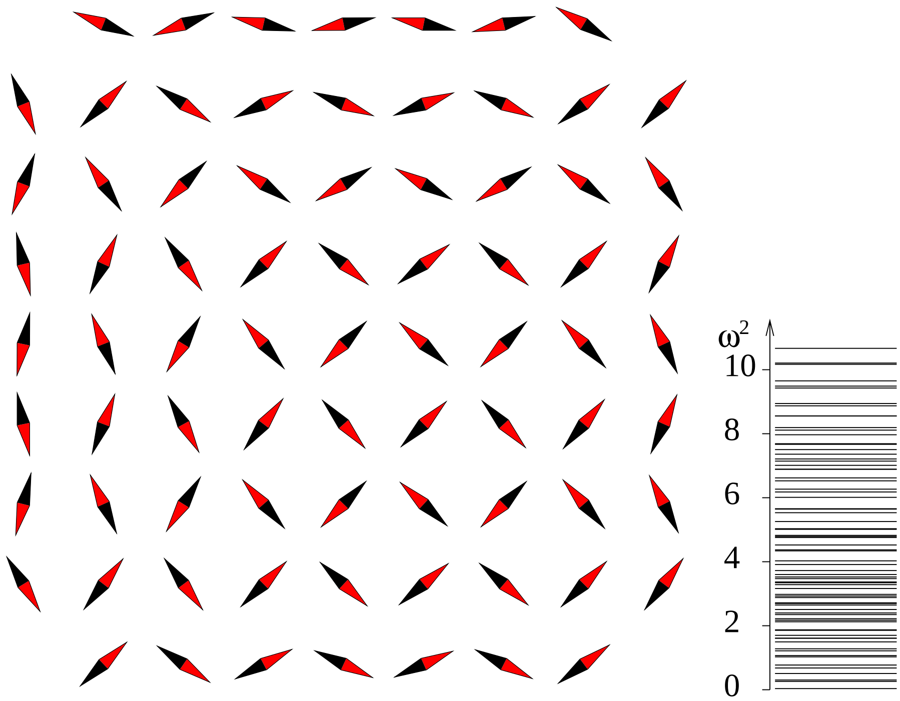


$E_4 = -180.08217$ (23 mal) $\omega_1^2 = 0.06410$

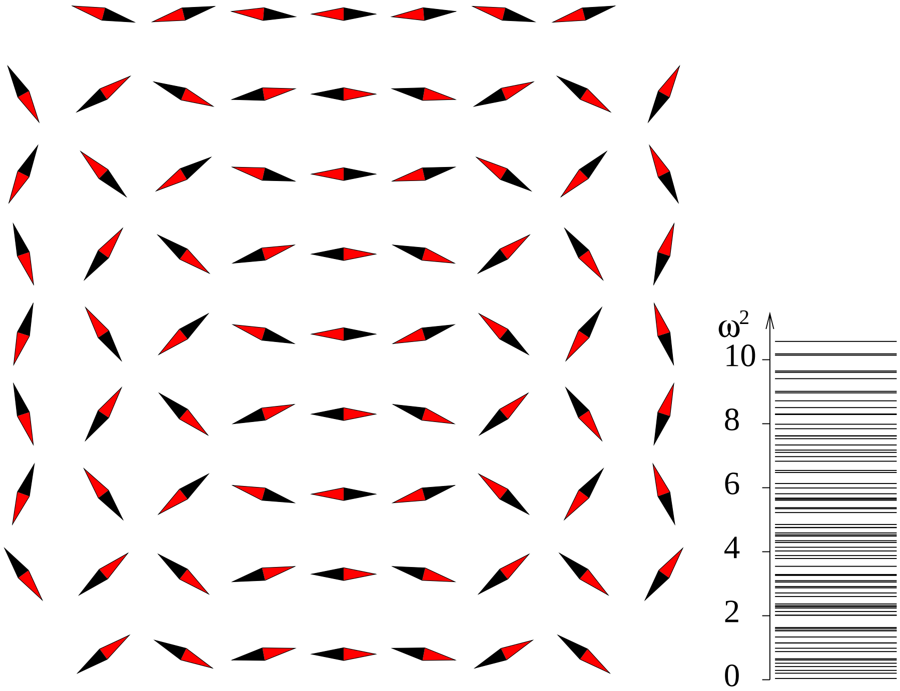




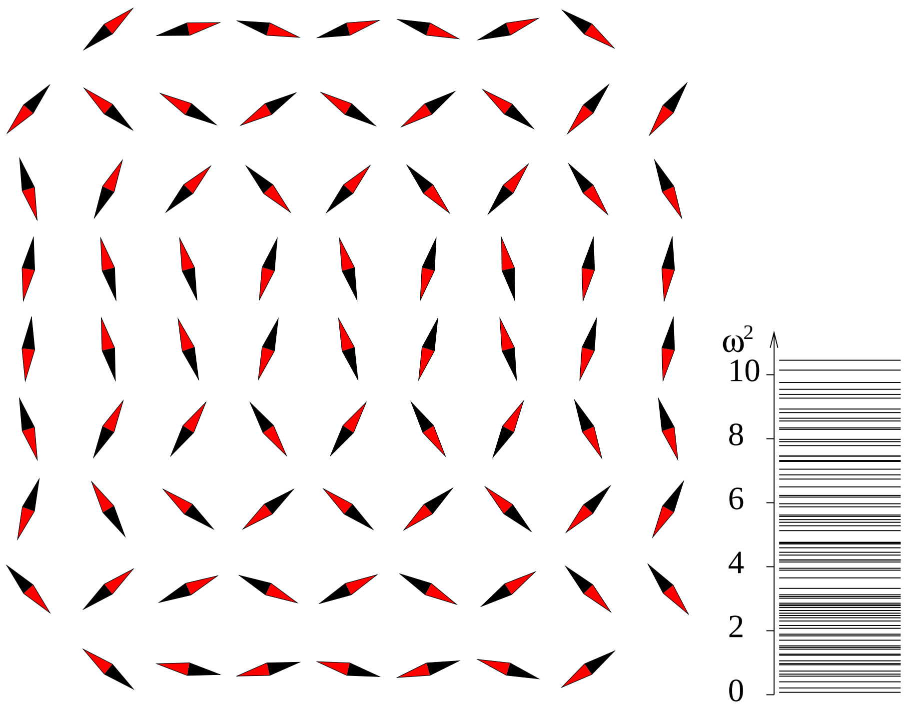
$E_5 = -179.85927$ (2 mal) $\omega_1^2 = 0.00405$



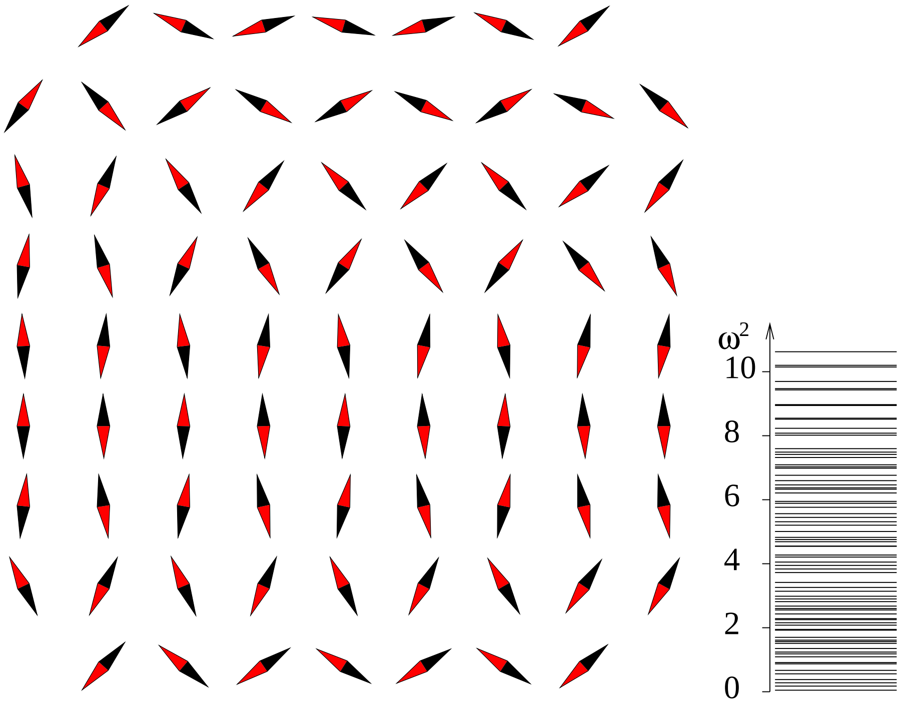
$E_6 = -179.43102$ (35 mal) $\omega_1^2 = 0.03547$



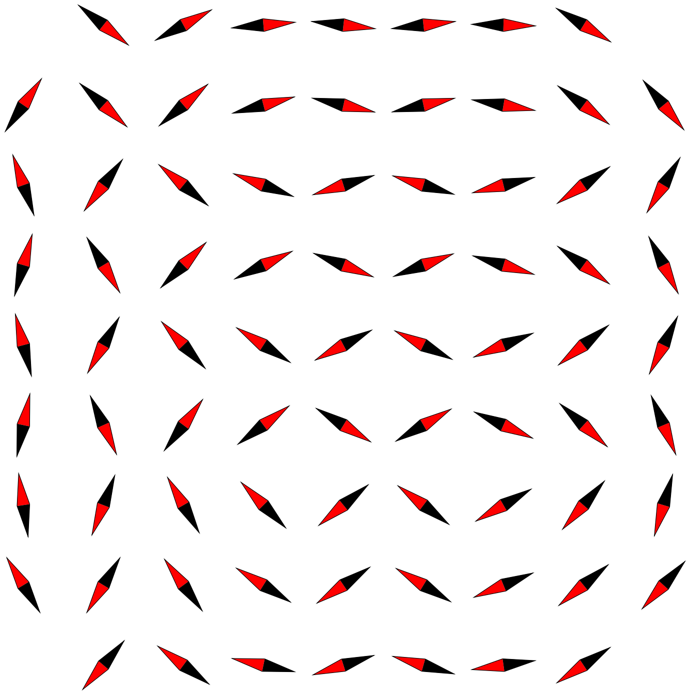
$E_7 = -179.42045$ (43 mal) $\omega_1^2 = 0.03865$

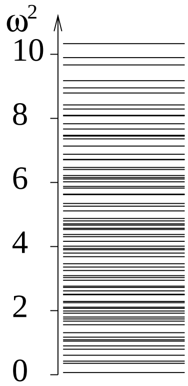


$E_{12} = -178.59011$ (41 mal) $\omega_1^2 = 0.07421$

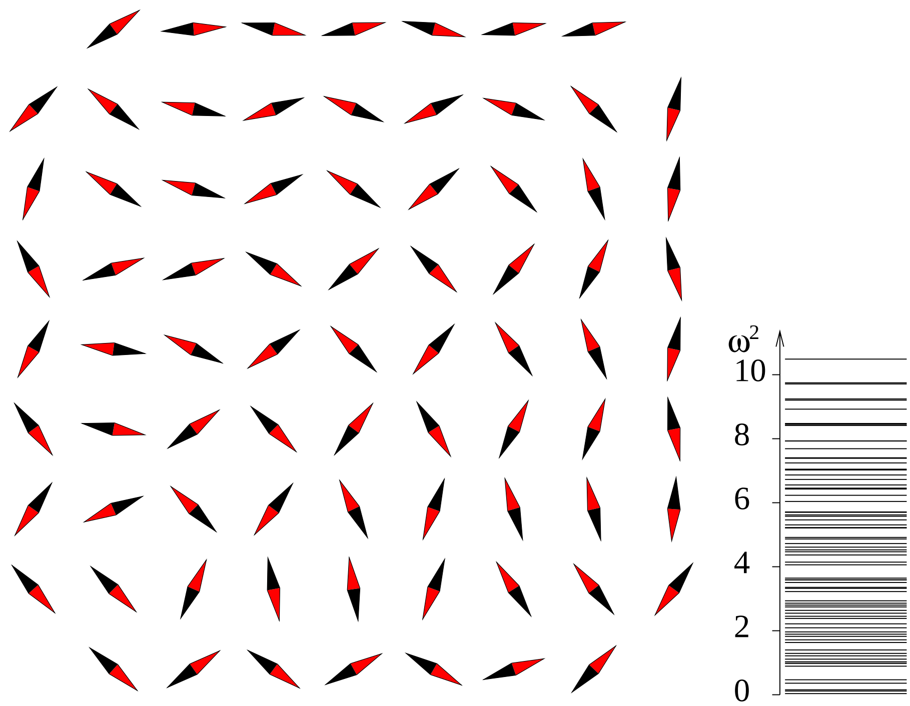


$E_{18} = -178.33413$ (41 mal) $\omega_1^2 = 0.04790$

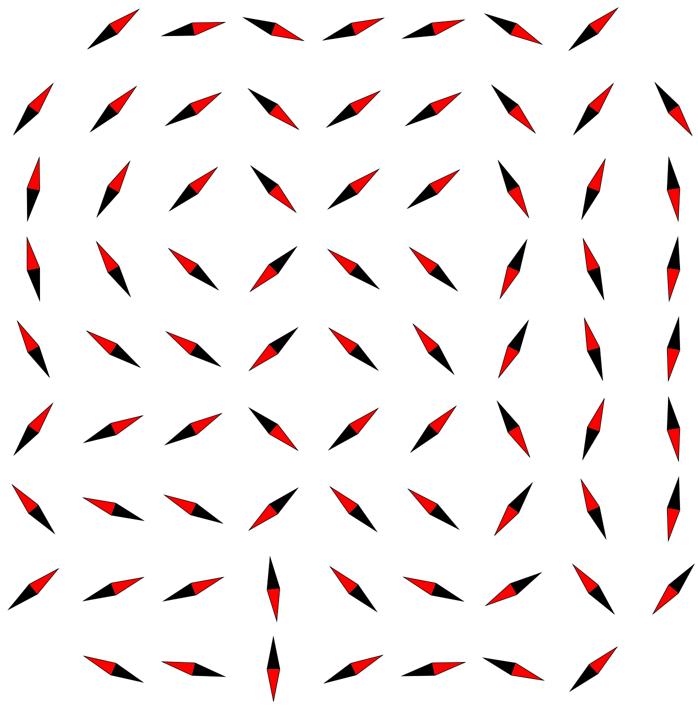


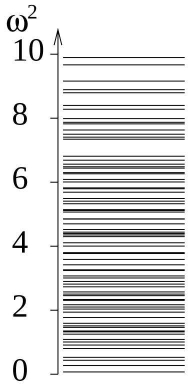


$E_{28} = -175.36954$ (1 mal) $\omega_1^2 = 0.06779$



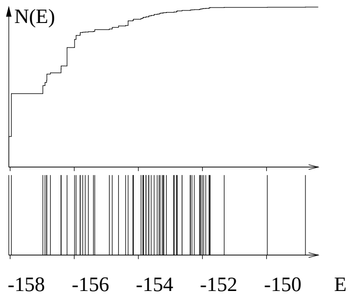
$E_{29} = -174.77299$ (1 mal) $\omega_1^2 = 0.03548$



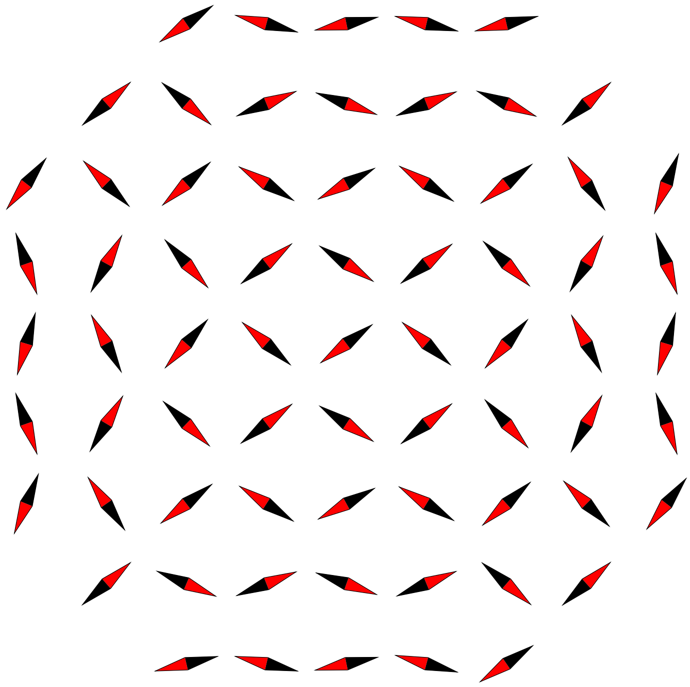


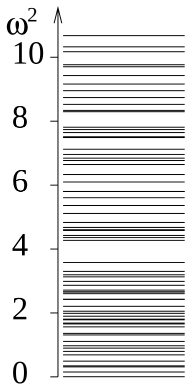
$E_{30} = -169.56200$ (1 mal) $\omega_1^2 = 0.07335$

Quadratisches Gitter (8,8,2)

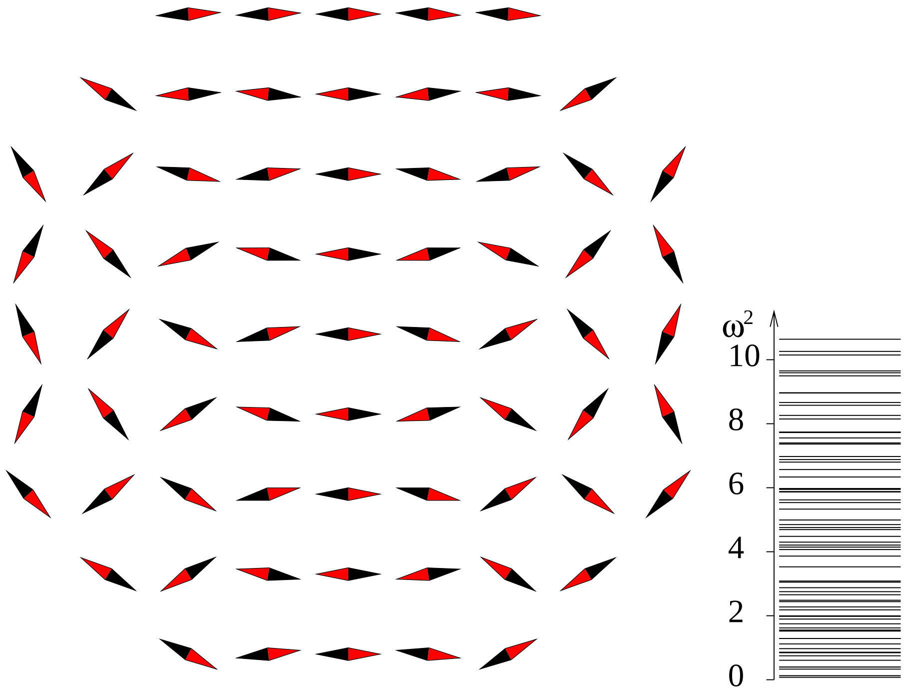


Anzahl Gitterpunkte: 69, Gefundene Energie-Niveaus: 68, Läufe: 1000

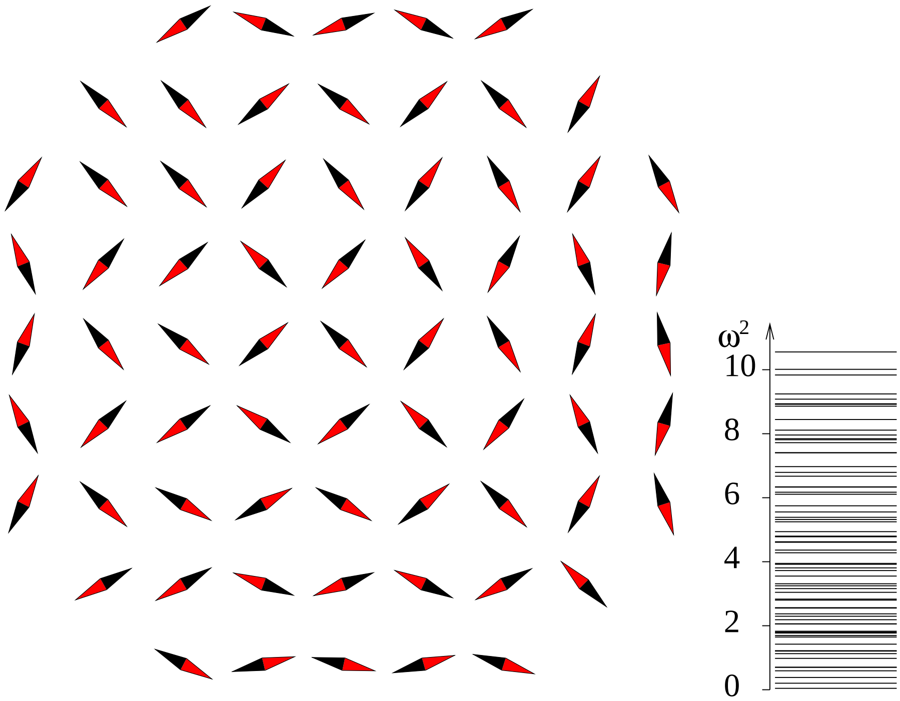




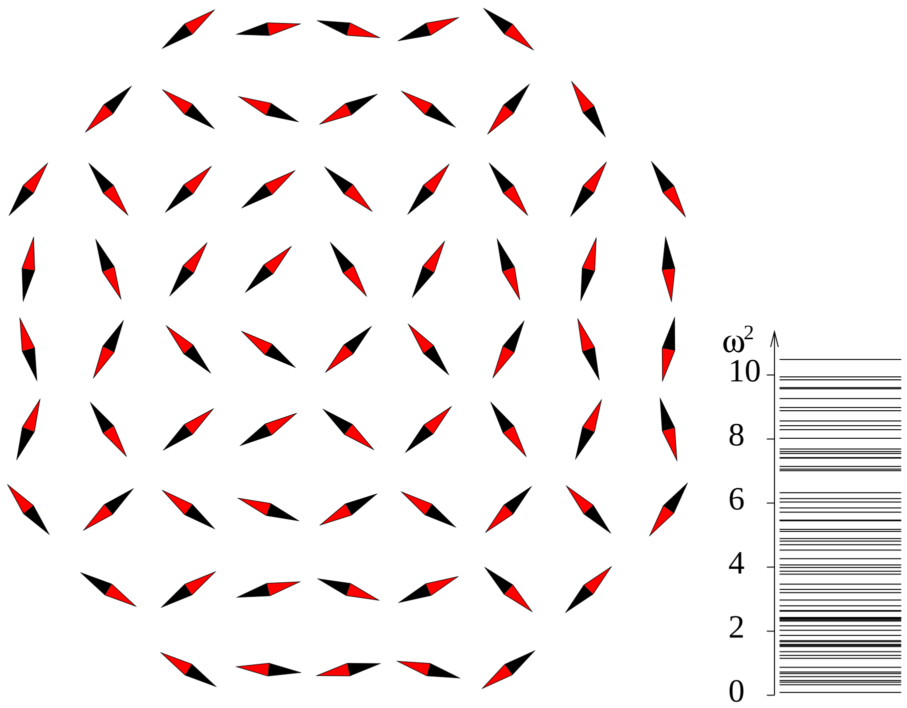
$E_1 = -158.04163$ (191 mal) $\omega_1^2 = 0.00232$



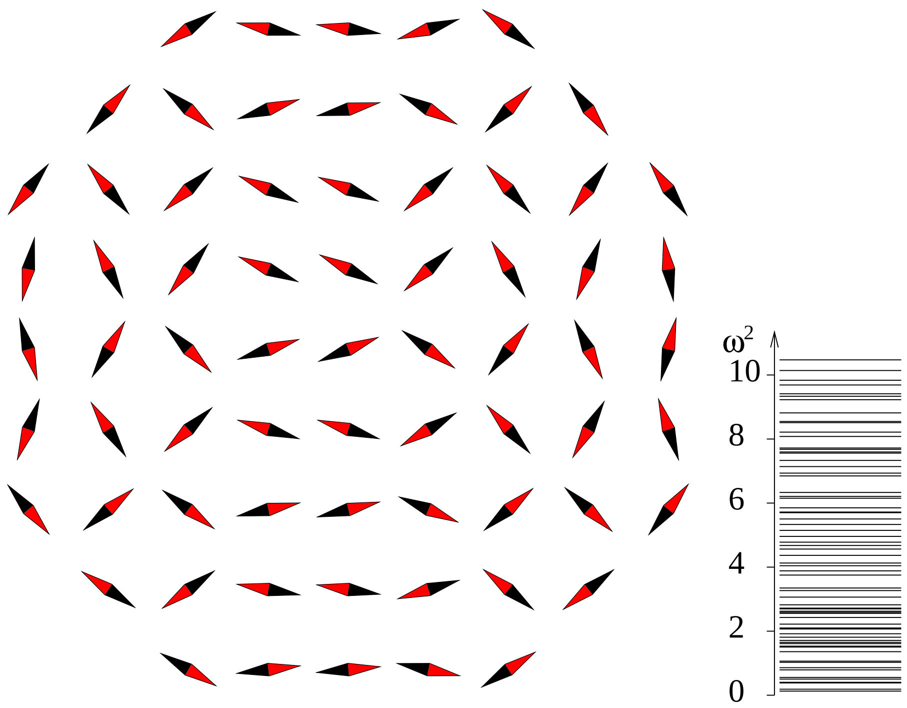
$E_2 = -157.96191$ (268 mal) $\omega_1^2 = 0.07689$



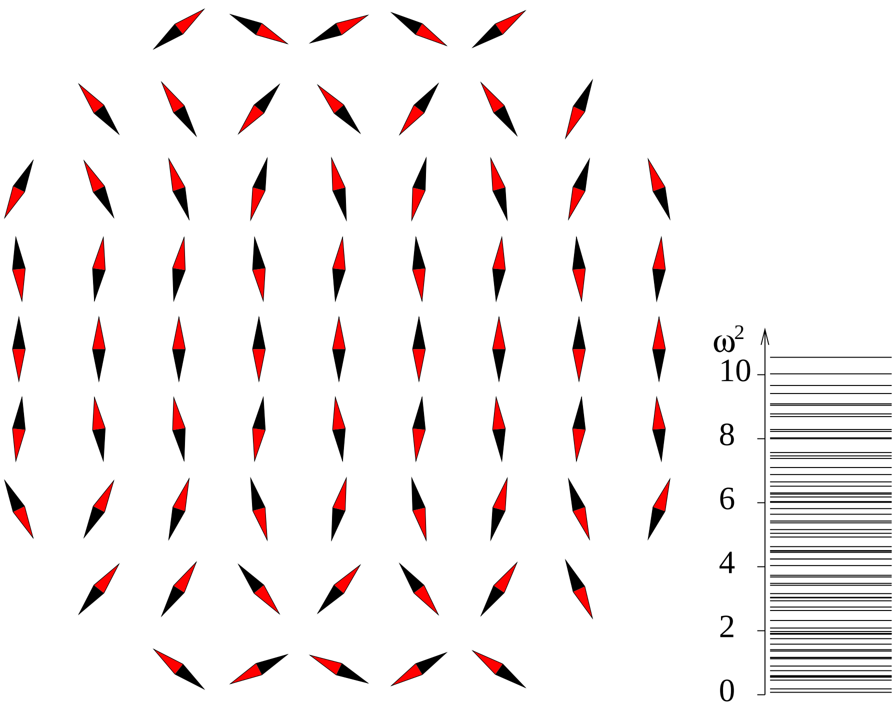
$E_3 = -156.97896$ (50 mal) $\omega_1^2 = 0.04344$



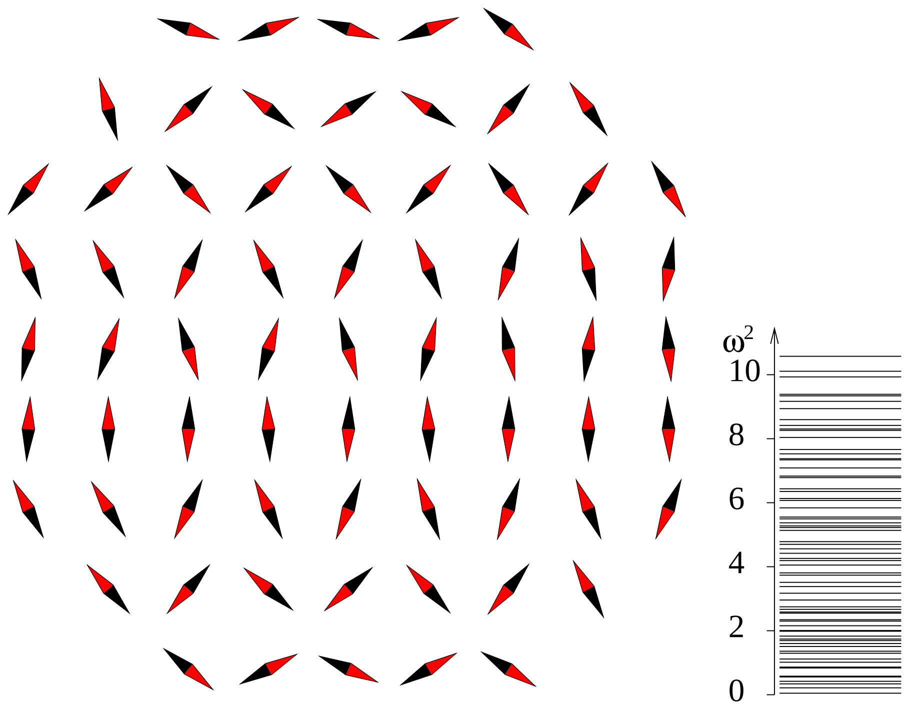
$E_4 = -156.91183$ (20 mal) $\omega_1^2 = 0.08808$



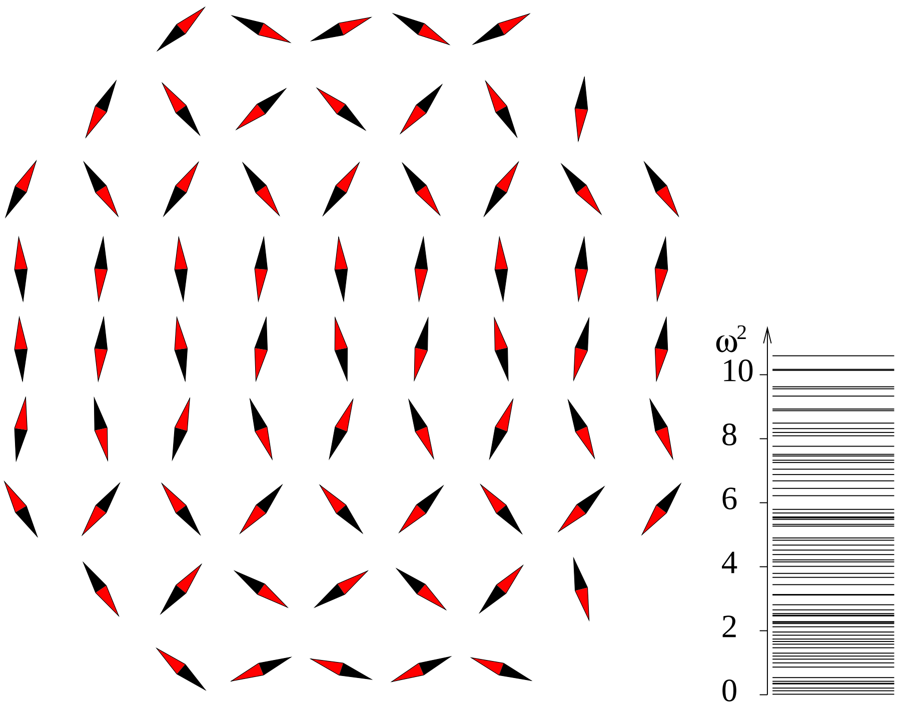
$E_5 = -156.86198$ (13 mal) $\omega_1^2 = 0.12984$



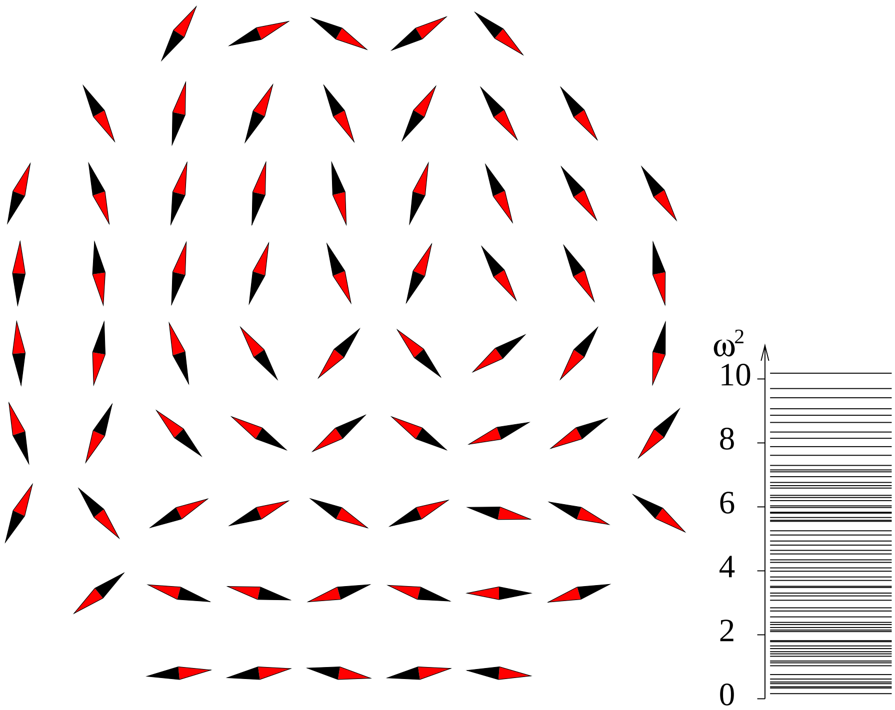
$E_6 = -156.85373$ (39 mal) $\omega_1^2 = 0.07441$



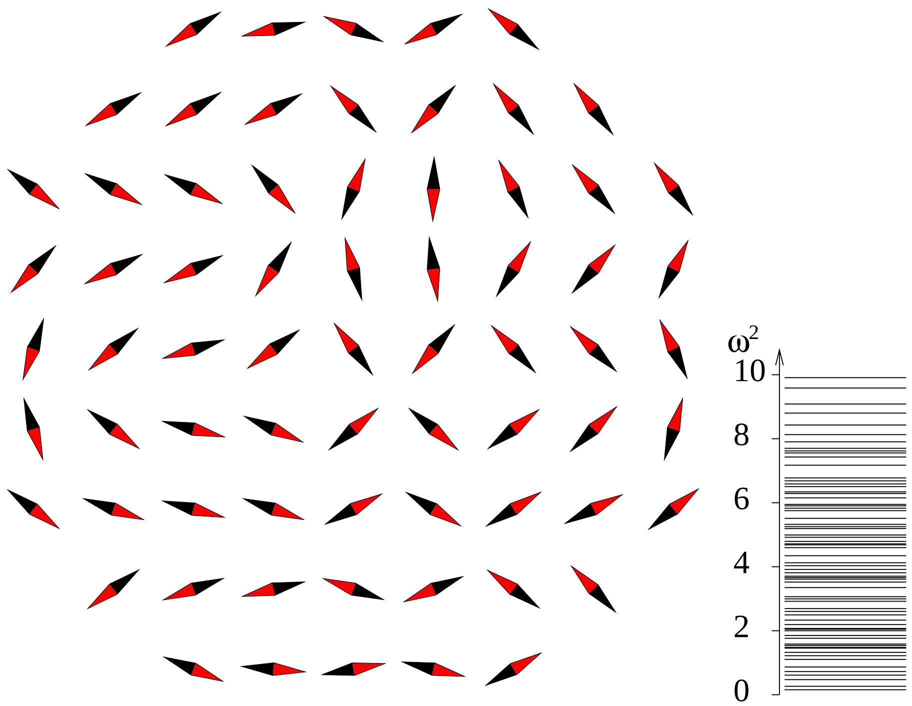
$E_{10} = -156.22304$ (115 mal) $\omega_1^2 = 0.04917$



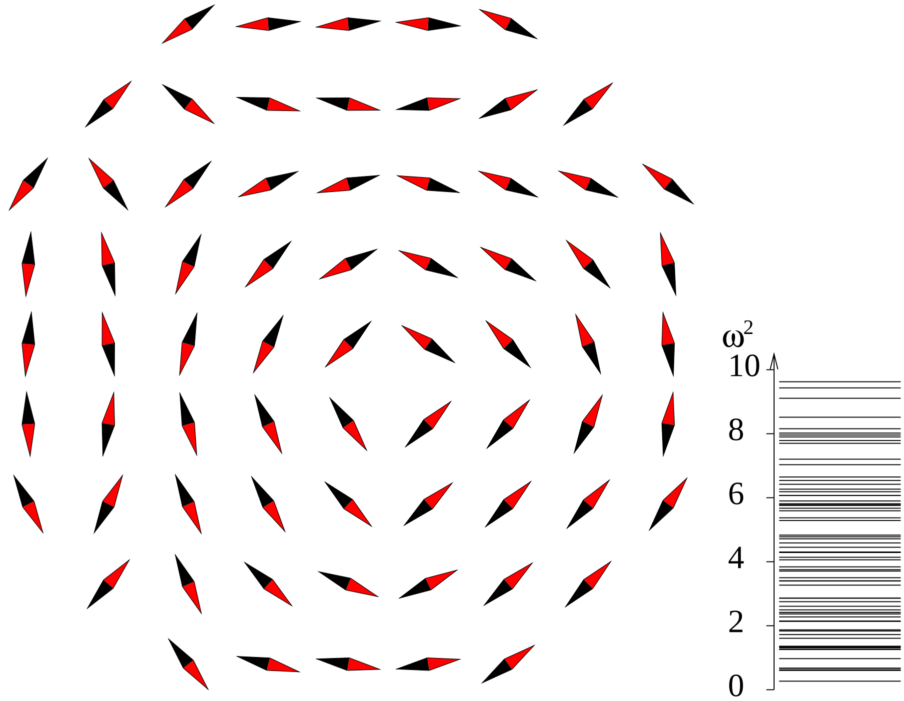
$E_{11} = -155.98825$ (51 mal) $\omega_1^2 = 0.01589$



$E_{66} = -151.32260$ (1 mal) $\omega_1^2 = 0.15833$

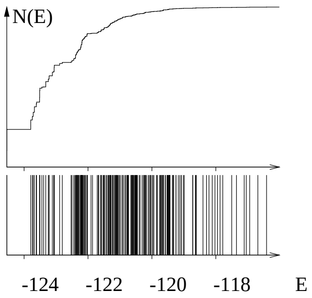


$E_{67} = -149.97628$ (1 mal) $\omega_1^2 = 0.15478$

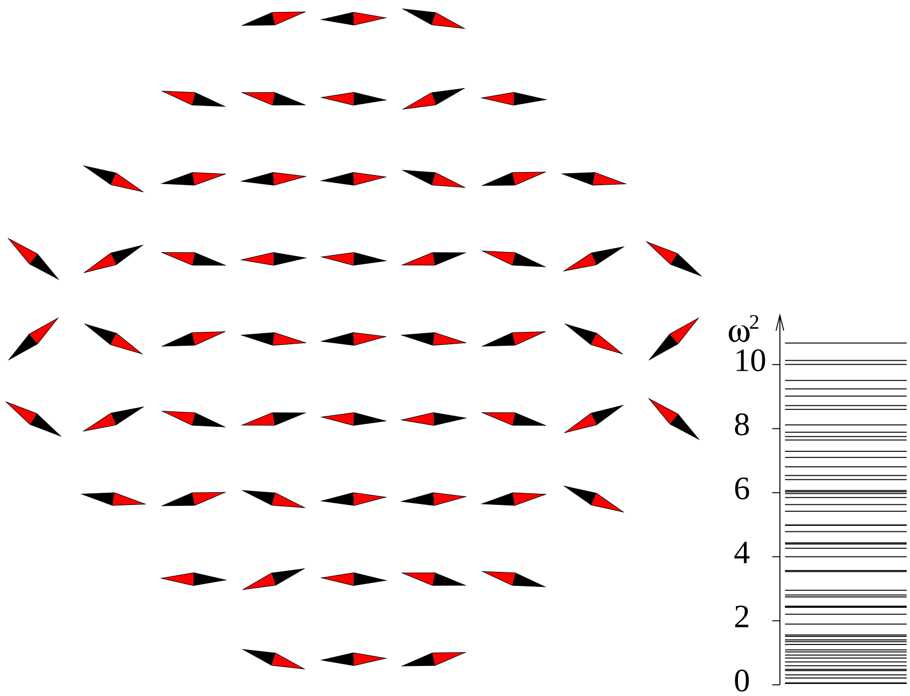


$E_{68} = -148.78709$ (1 mal) $\omega_1^2 = 0.26969$

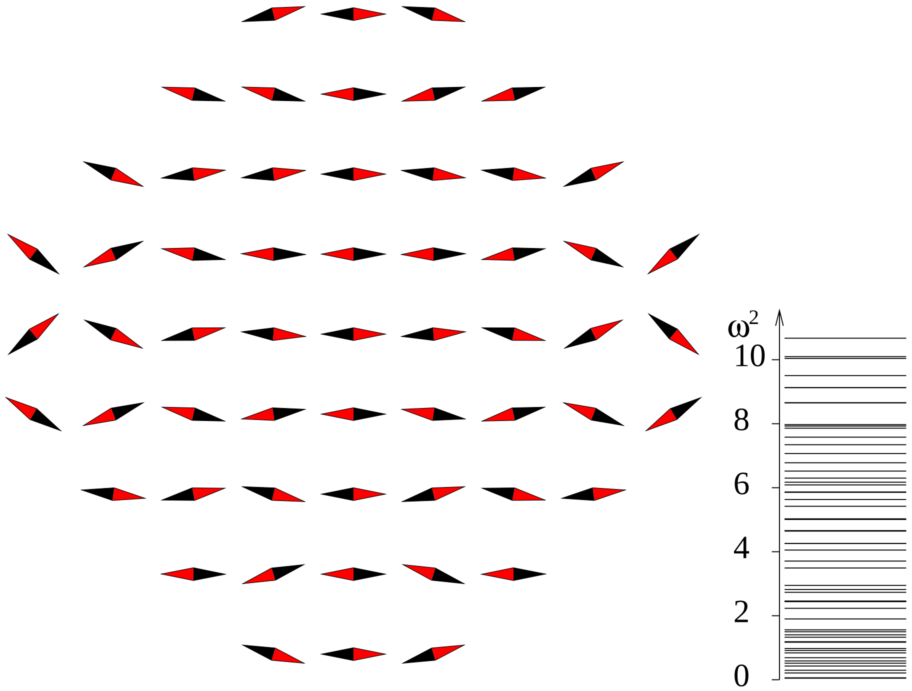
Quadratisches Gitter (8,8,3)



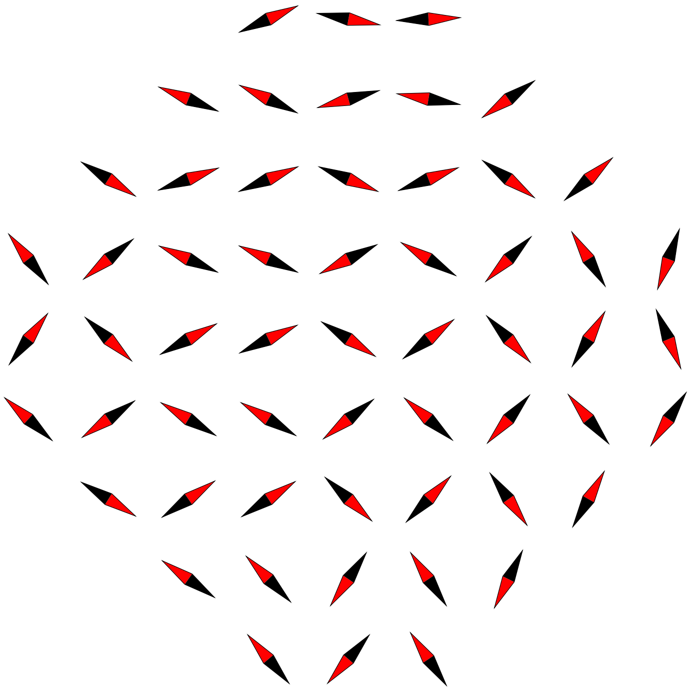
Anzahl Gitterpunkte: 57, Gefundene Energie-Niveaus: 205, Läufe: 3000

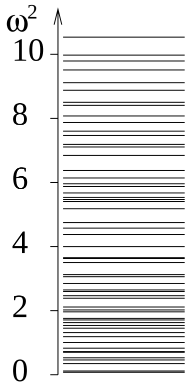


$E_1 = -124.54288$ (312 mal) $\omega_1^2 = 0.04407$

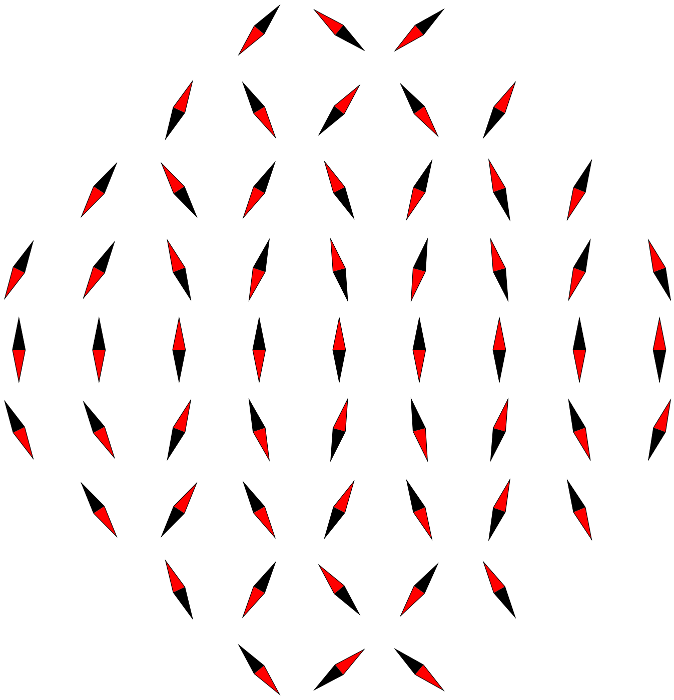


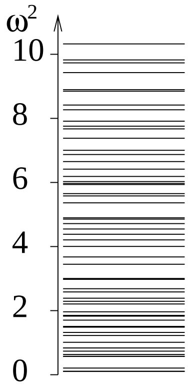
$E_2 = -124.53973$ (394 mal) $\omega_1^2 = 0.04727$



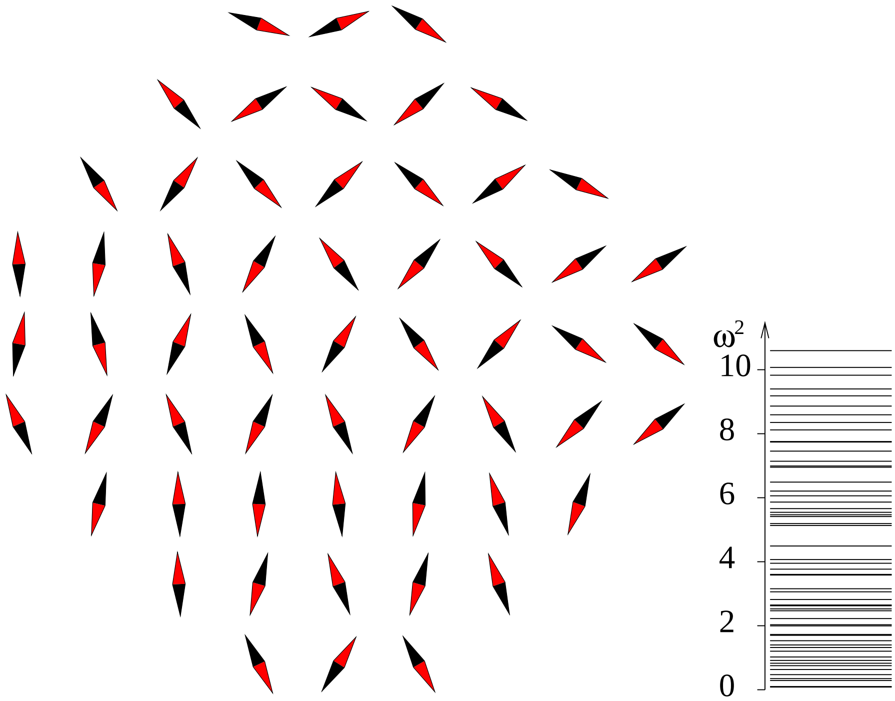


$E_3 = -123.79331$ (177 mal) $\omega_1^2 = 0.07765$

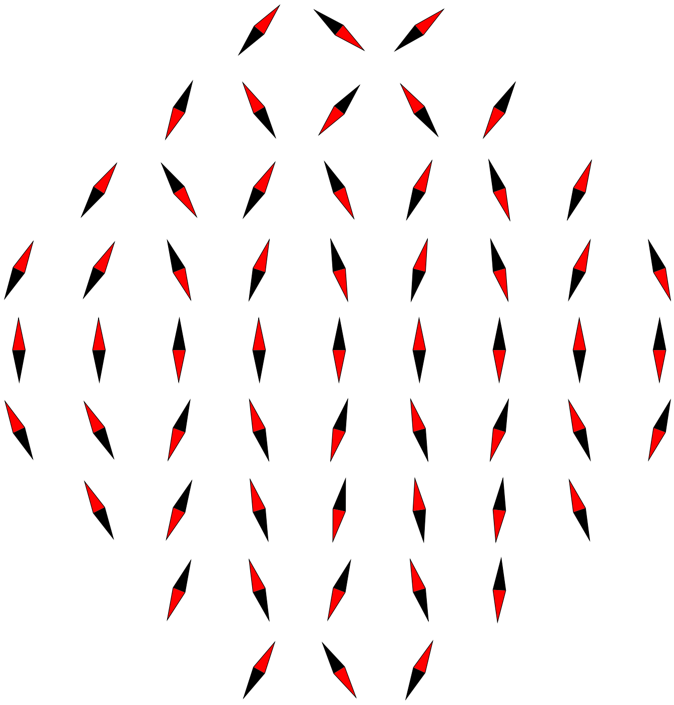


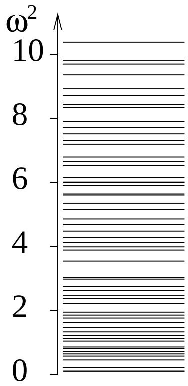


$E_4 = -123.74354$ (66 mal) $\omega_1^2 = 0.10488$

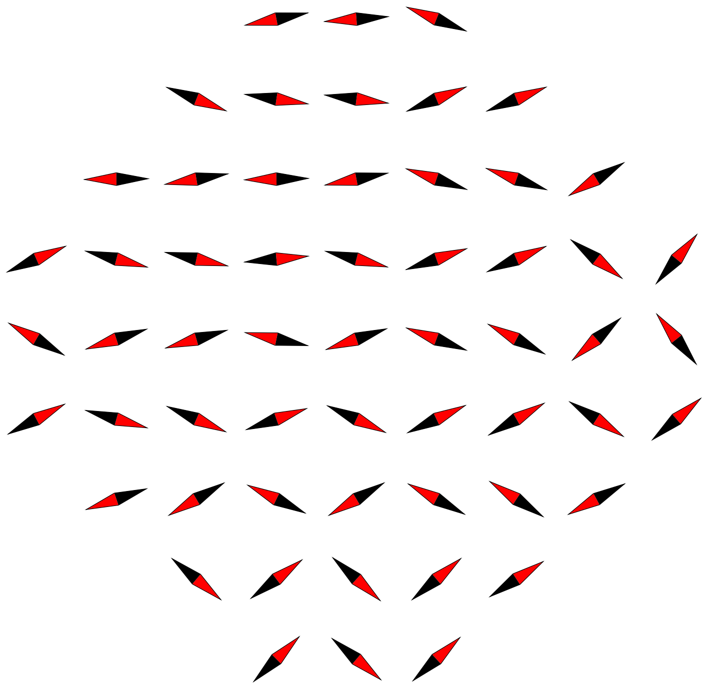


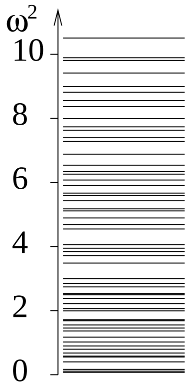
$E_5 = -123.71601$ (79 mal) $\omega_1^2 = 0.08419$



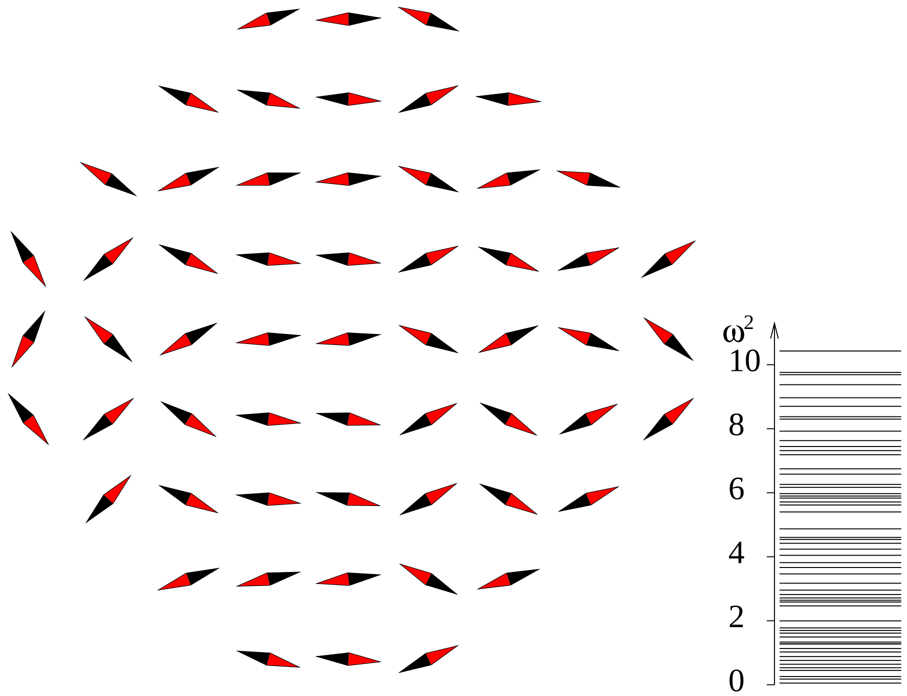


$E_6 = -123.67713$ (103 mal) $\omega_1^2 = 0.10576$

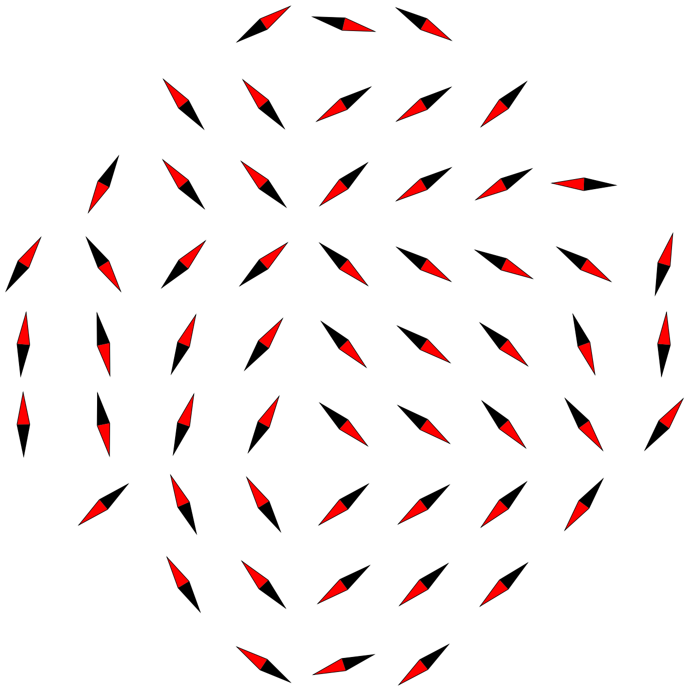


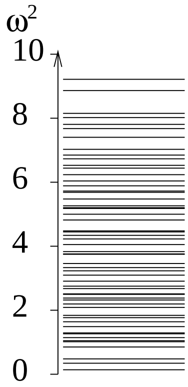


$E_9 = -123.51604$ (84 mal) $\omega_1^2 = 0.07495$

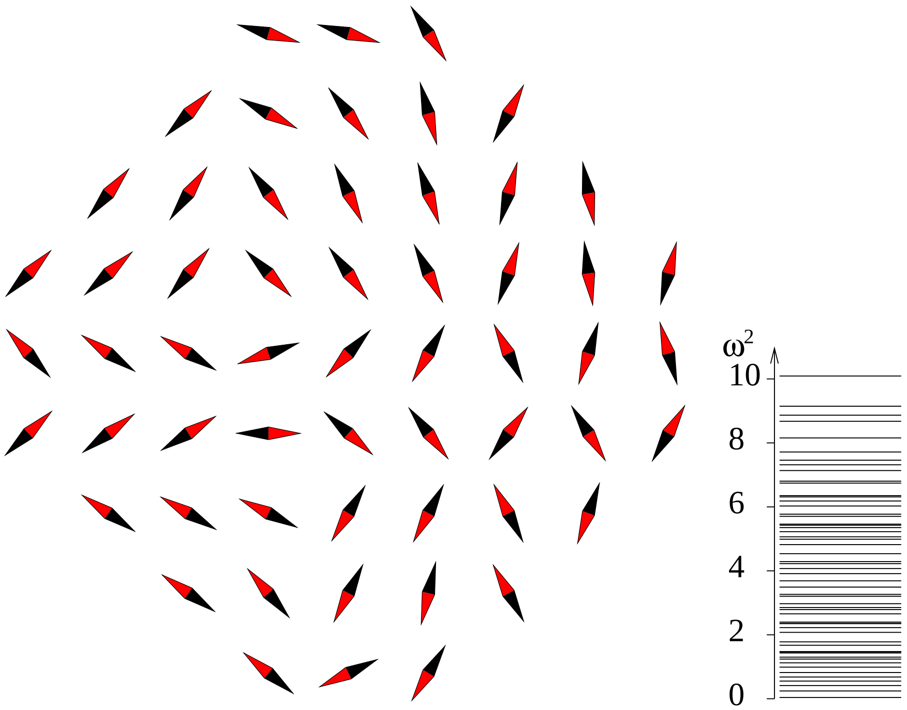


$E_{15} = -123.32173$ (99 mal) $\omega_1^2 = 0.05149$

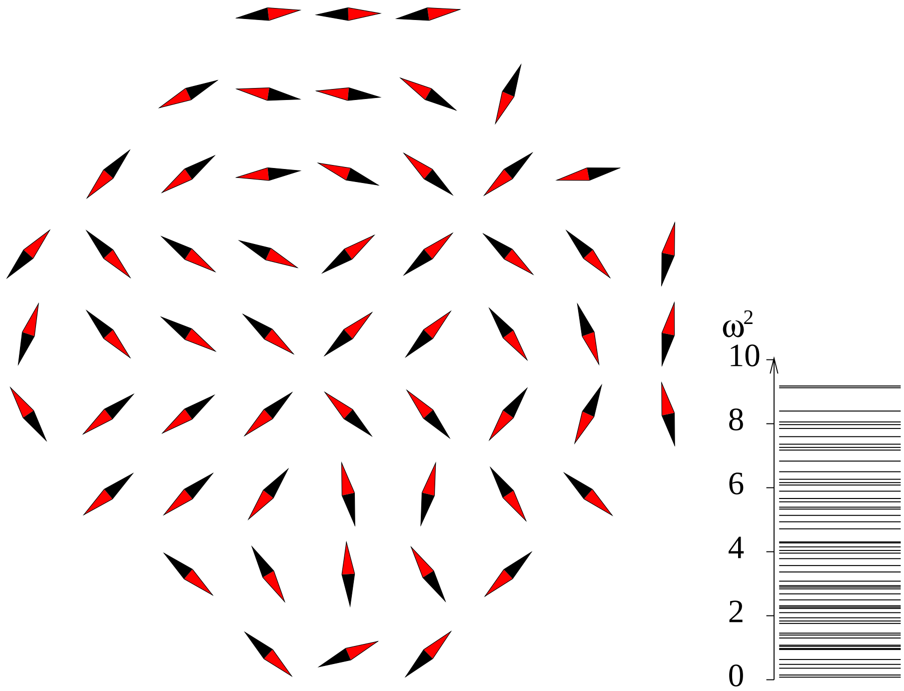




$E_{203} = -116.94072$ (1 mal) $\omega_1^2 = 0.14079$

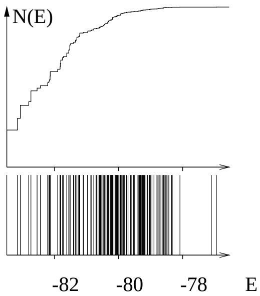


$E_{204} = -116.68478$ (1 mal) $\omega_1^2 = 0.03908$

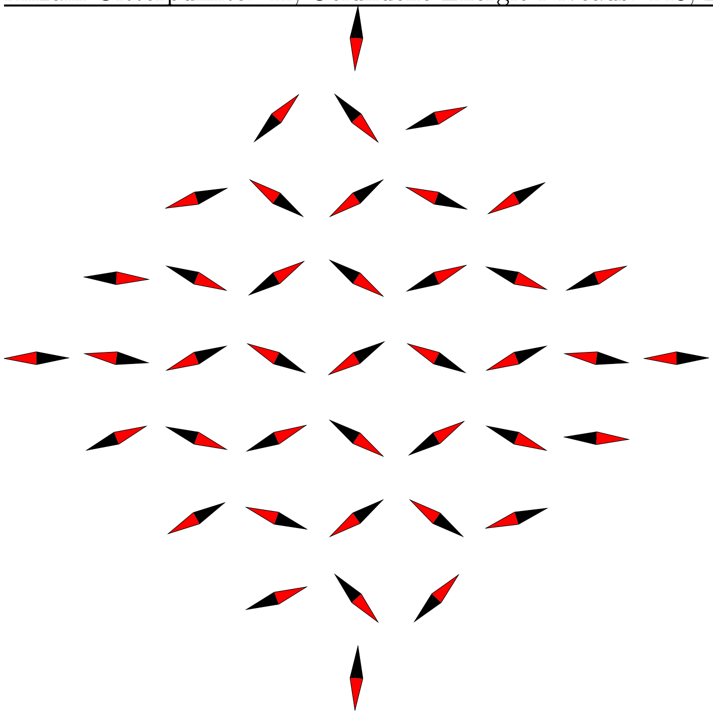


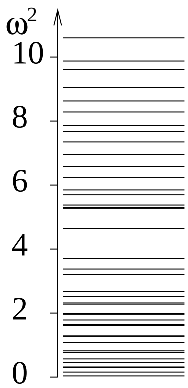
$E_{205} = -116.41339$ (1 mal) $\omega_1^2 = 0.08170$

Quadratisches Gitter (8,8,4)

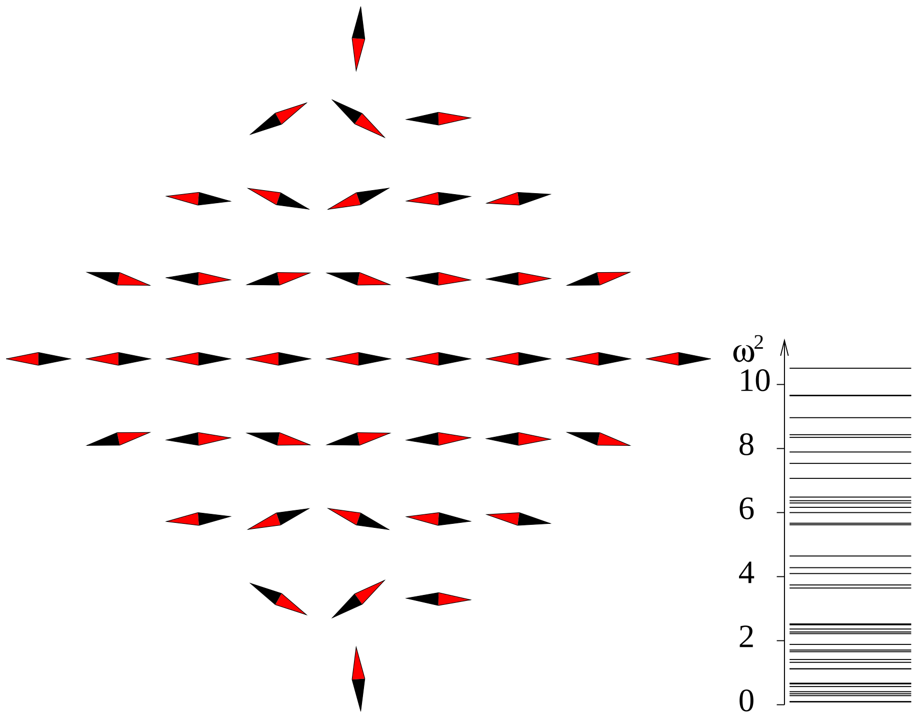


Anzahl Gitterpunkte: 41, Gefundene Energie-Niveaus: 143, Läufe: 3000

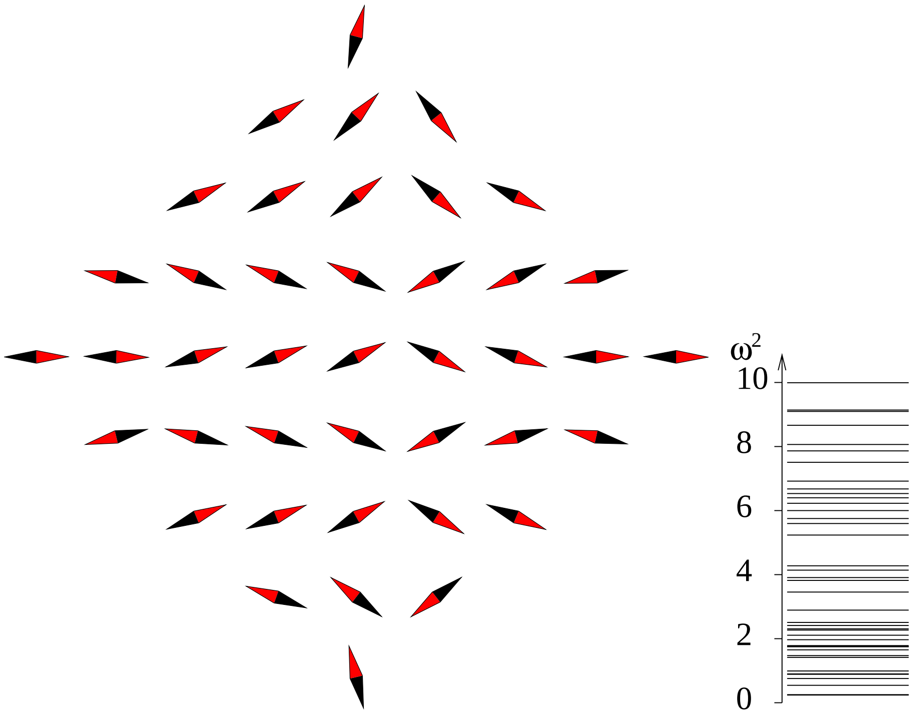




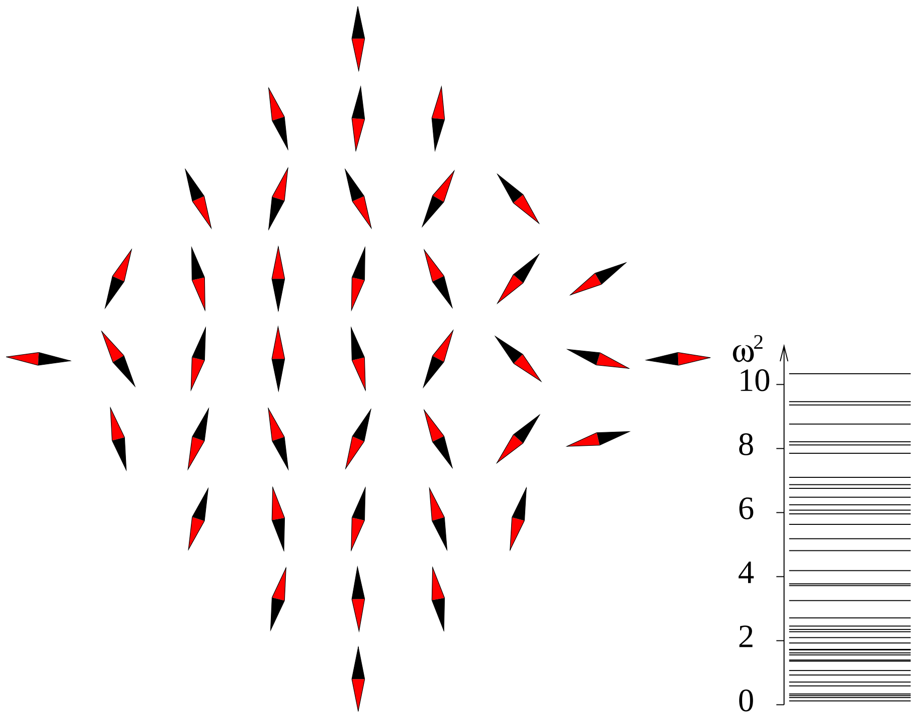
$E_1 = -83.48510$ (694 mal) $\omega_1^2 = 0.03625$



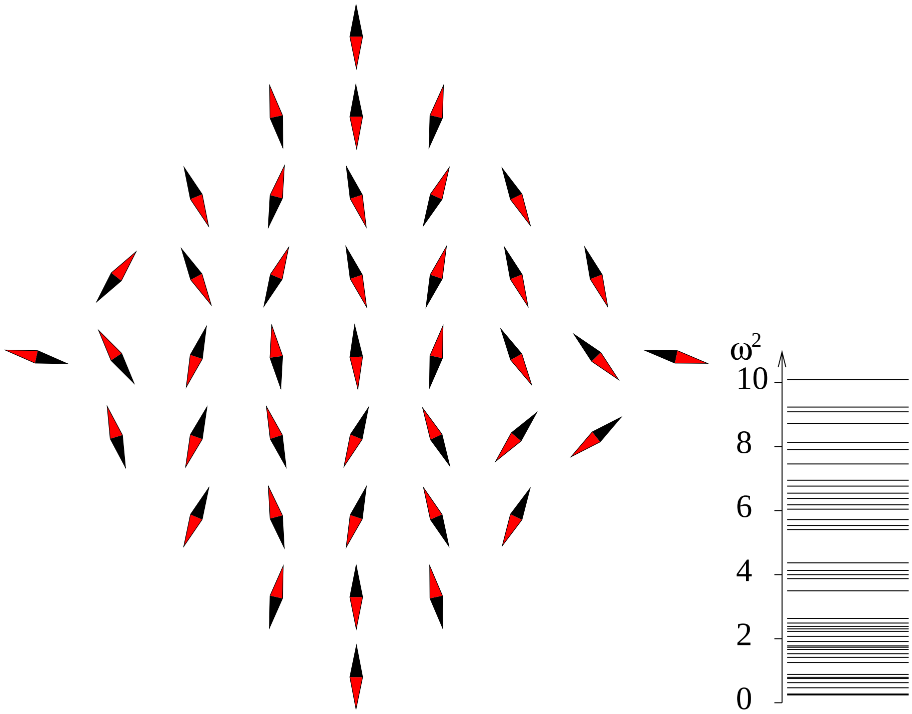
$E_2 = -83.15162$ (219 mal) $\omega_1^2 = 0.08740$



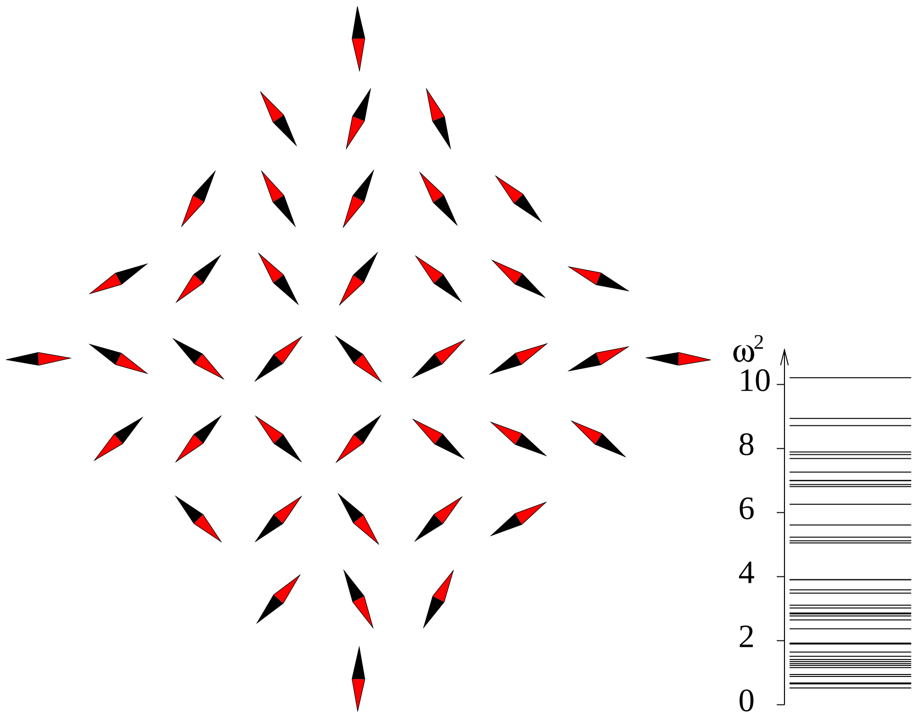
$E_3 = -83.06219$ (245 mal) $\omega_1^2 = 0.24040$



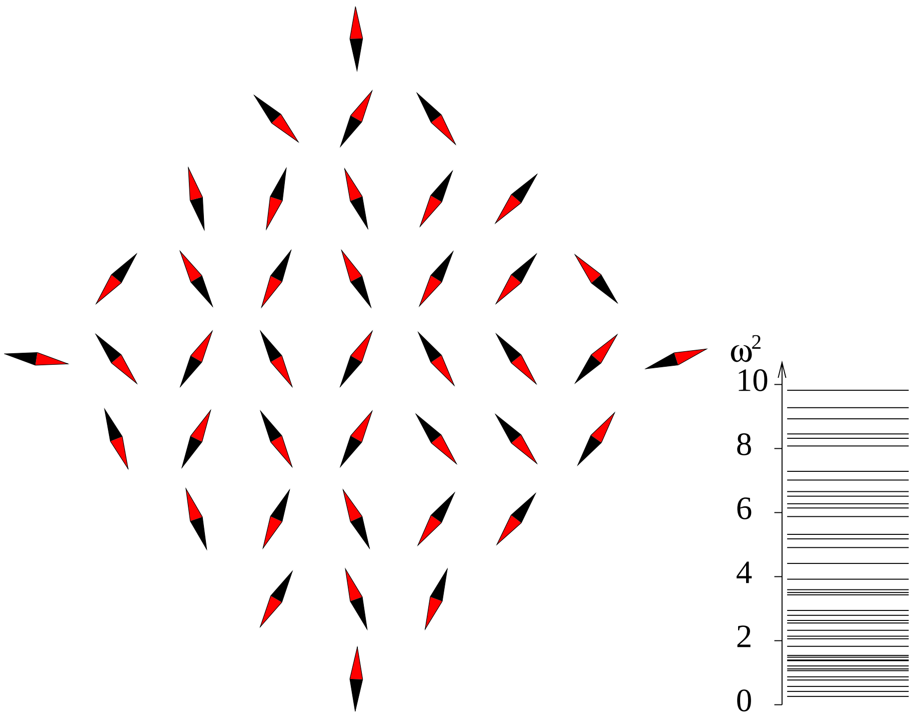
$E_4 = -82.80051$ (69 mal) $\omega_1^2 = 0.12085$



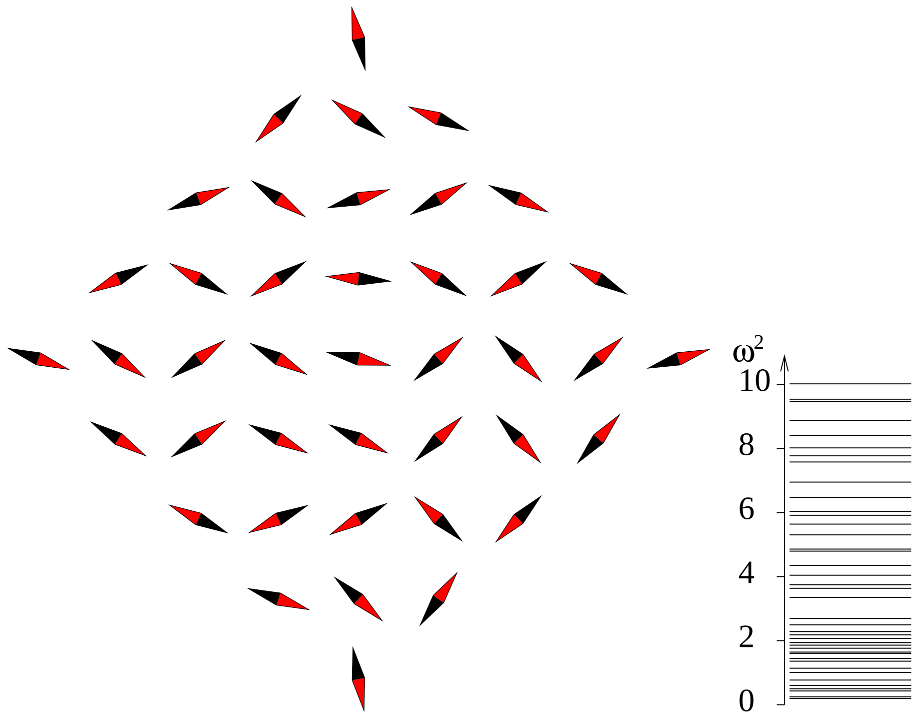
$E_5 = -82.73373$ (203 mal) $\omega_1^2 = 0.24556$



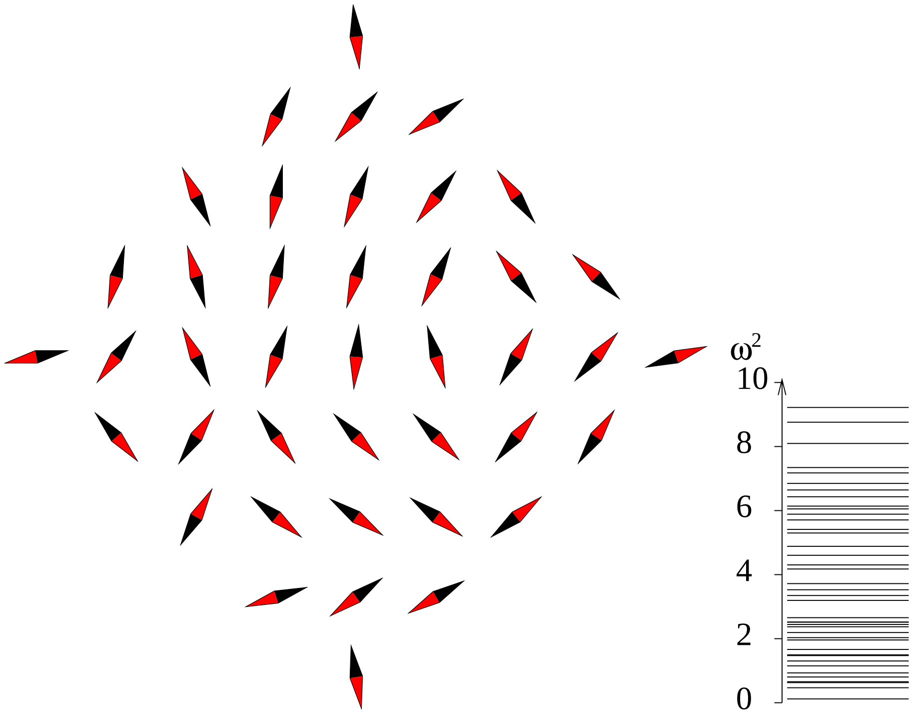
$E_6 = -82.53906$ (50 mal) $\omega_1^2 = 0.52591$



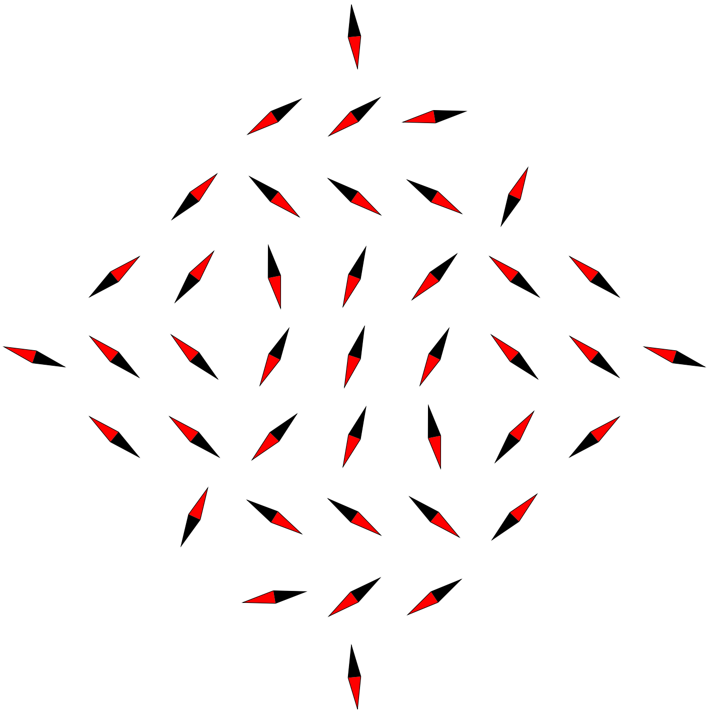
$E_{12} = -82.13098$ (85 mal) $\omega_1^2 = 0.25870$

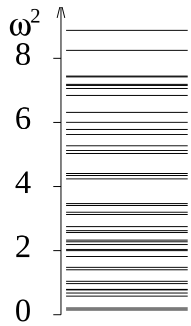


$E_{22} = -81.51889$ (95 mal) $\omega_1^2 = 0.19259$

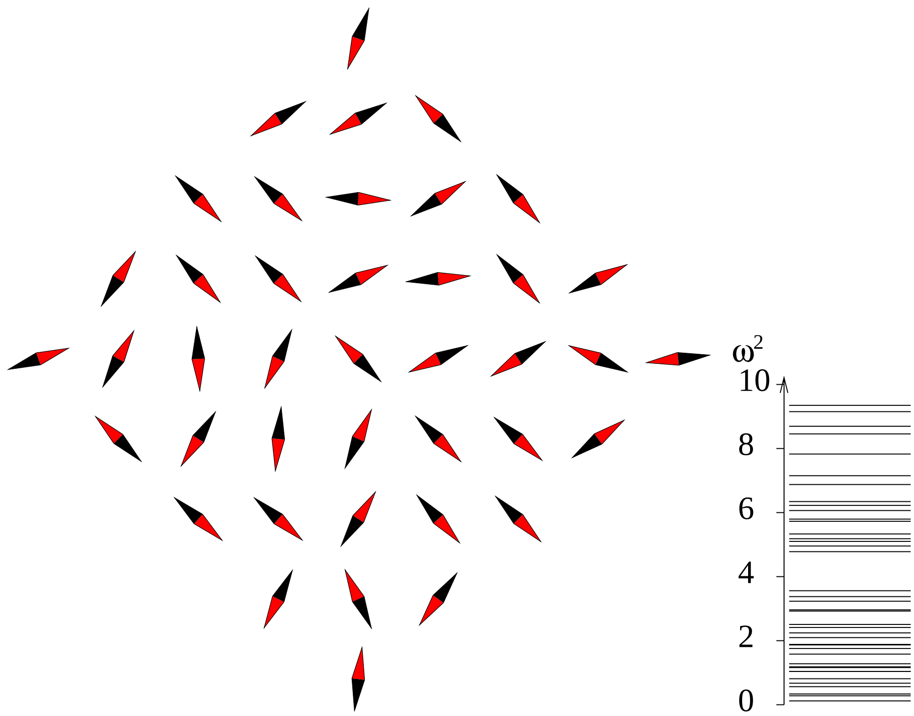


$E_{141} = -78.08548$ (1 mal) $\omega_1^2 = 0.12136$



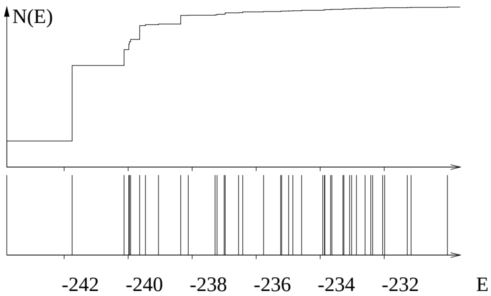


$E_{142} = -77.10850$ (1 mal) $\omega_1^2 = 0.14984$

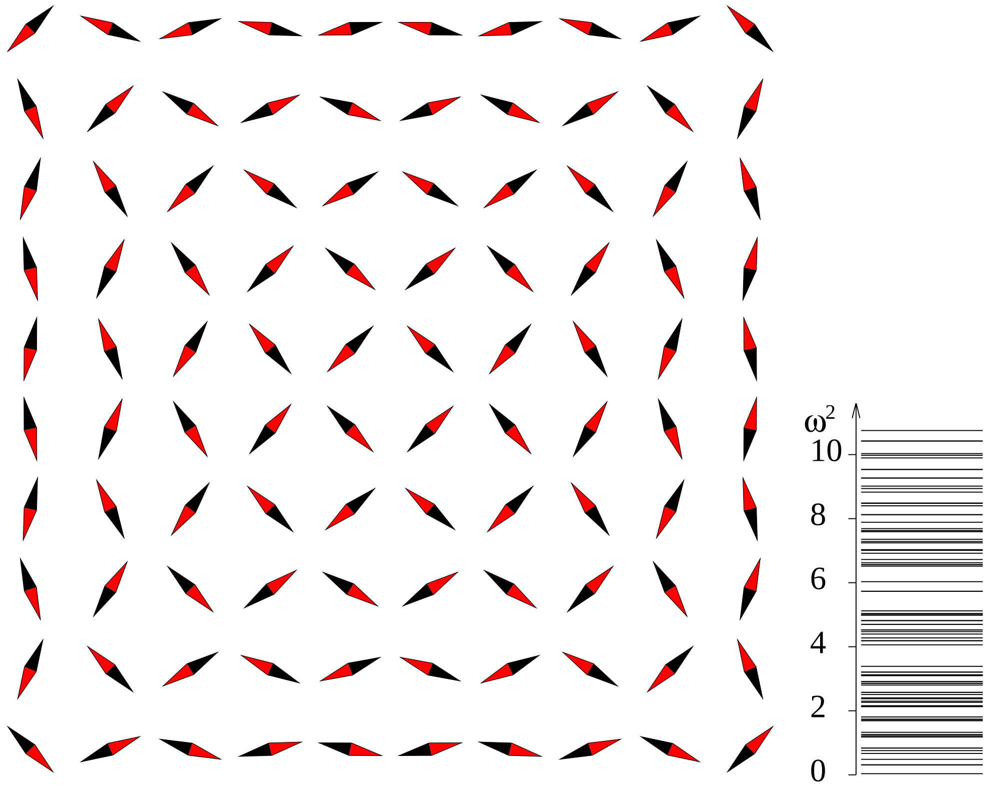


$E_{143} = -76.95102$ (1 mal) $\omega_1^2 = 0.11967$

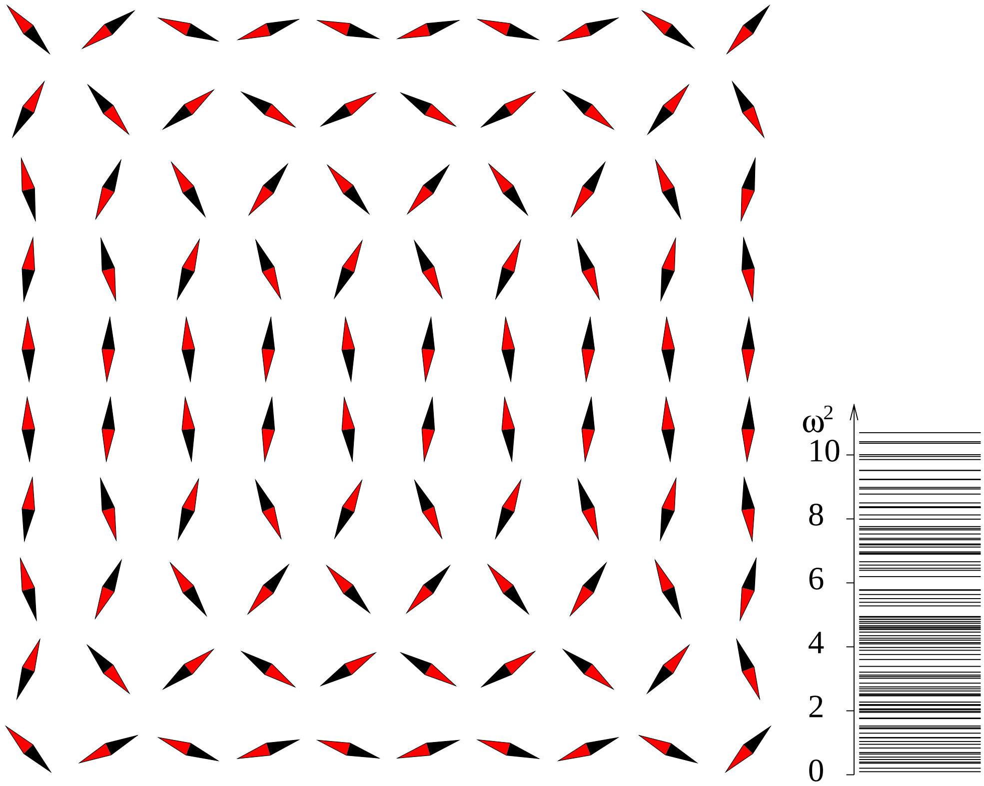
Quadratisches Gitter (9,9,0)



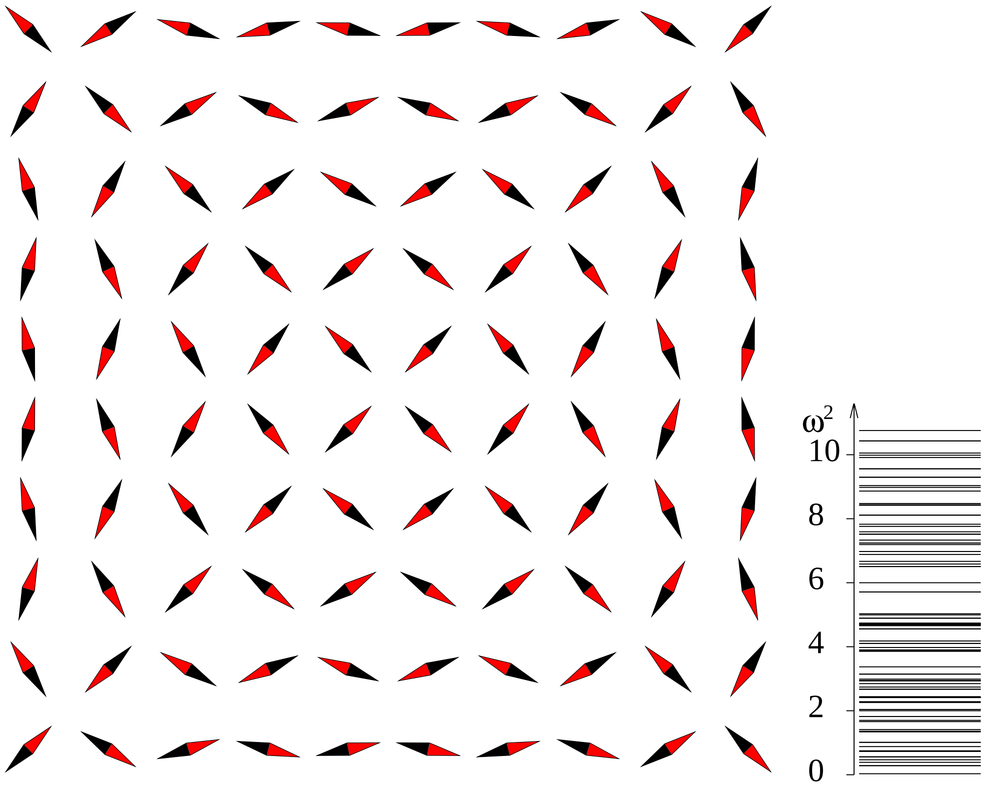
Anzahl Gitterpunkte: 100, Gefundene Energie-Niveaus: 41, Läufe: 1000



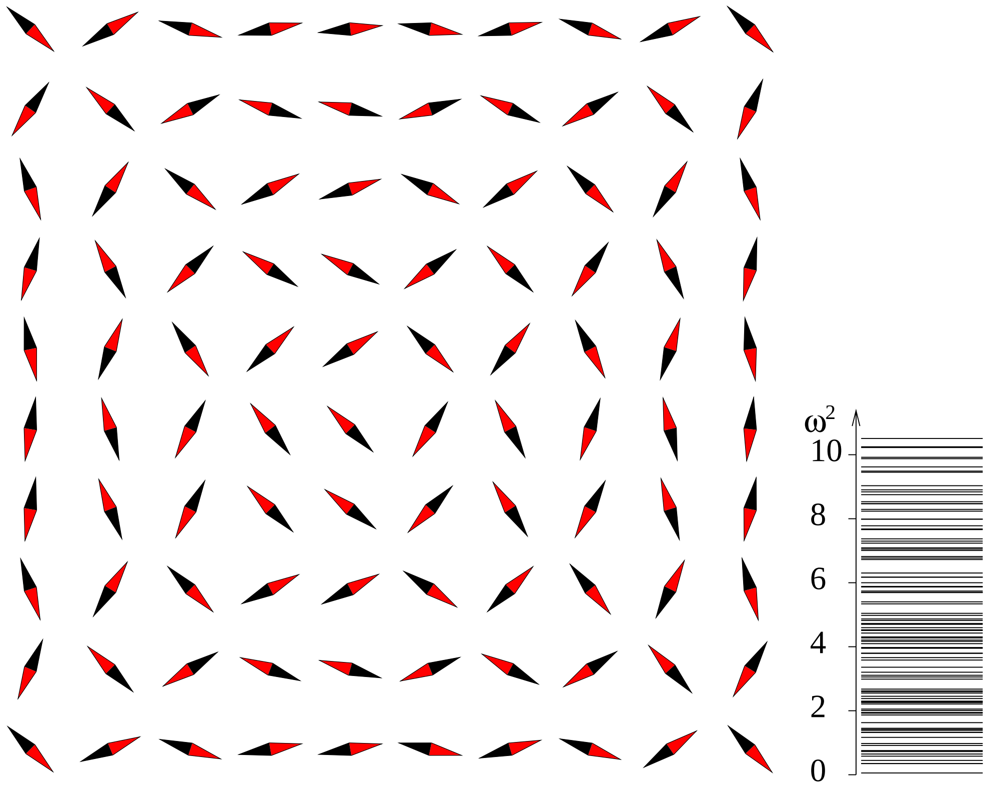
$E_1 = -243.79343$ (163 mal) $\omega_1^2 = 0.03469$



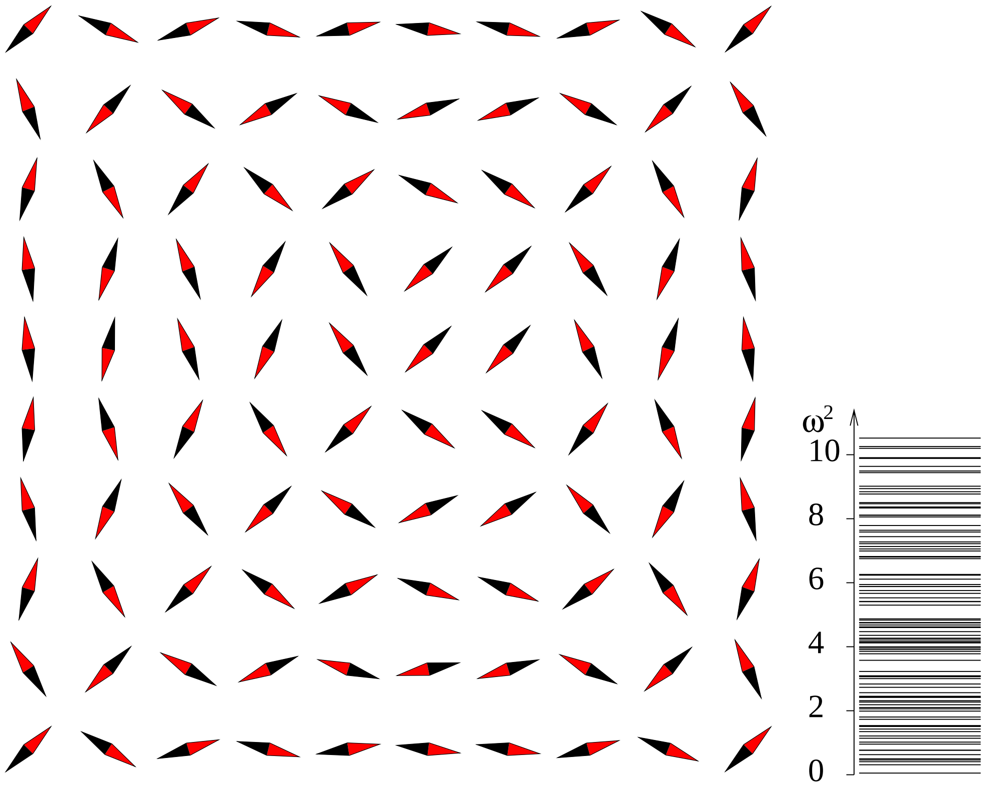
$E_2 = -241.75185$ (472 mal) $\omega_1^2 = 0.09438$



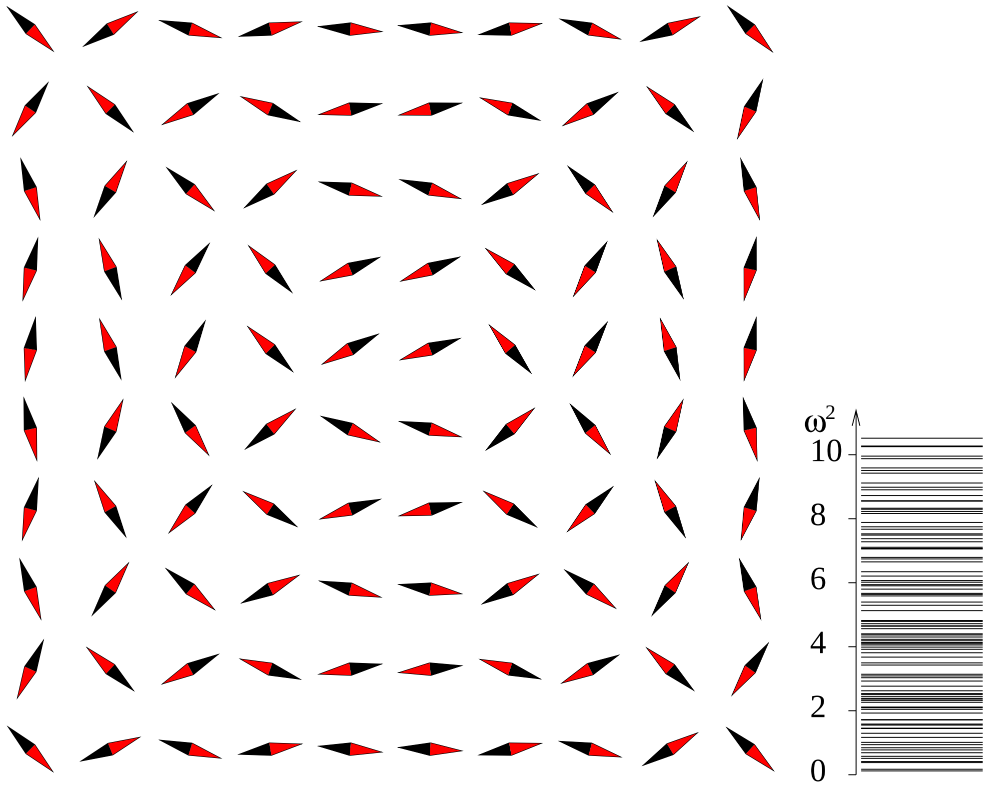
$E_3 = -240.12753$ (99 mal) $\omega_1^2 = 0.03038$



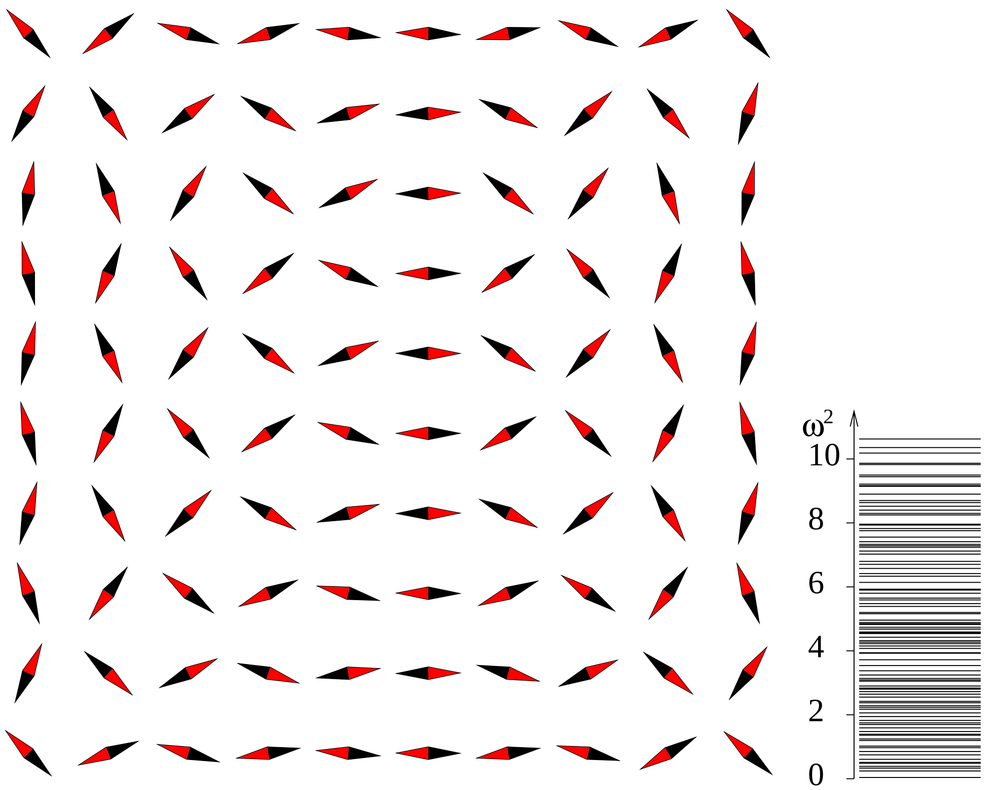
$E_4 = -239.98182$ (33 mal) $\omega_1^2 = 0.05629$



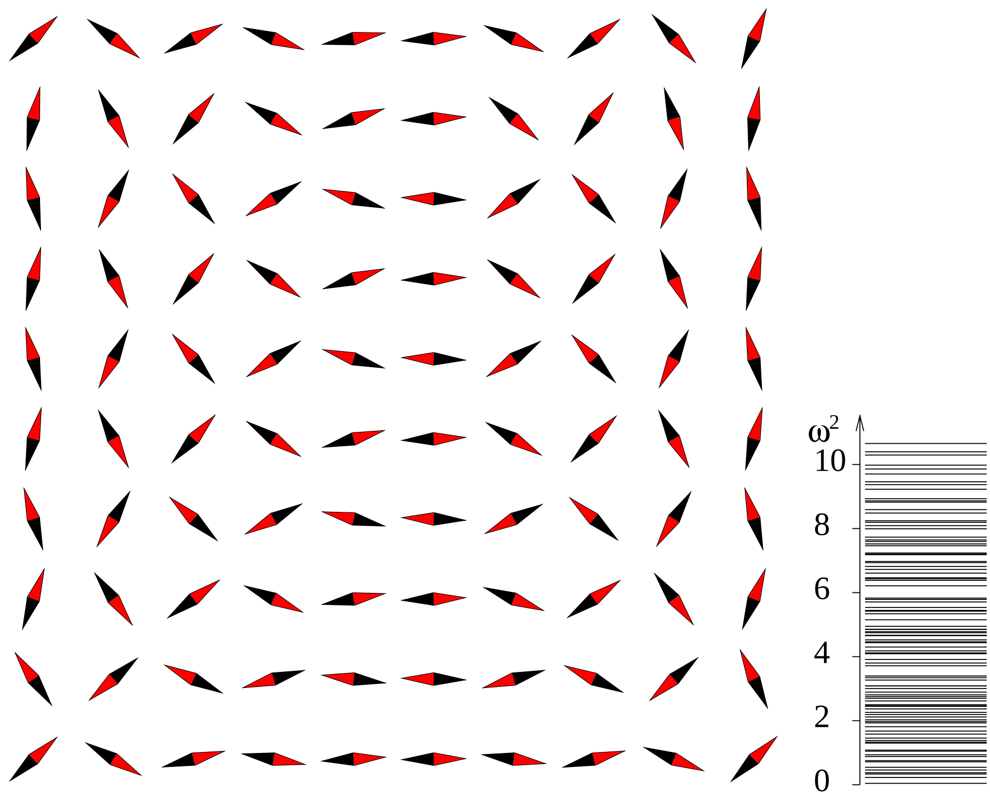
$E_5 = -239.96256$ (16 mal) $\omega_1^2 = 0.05254$



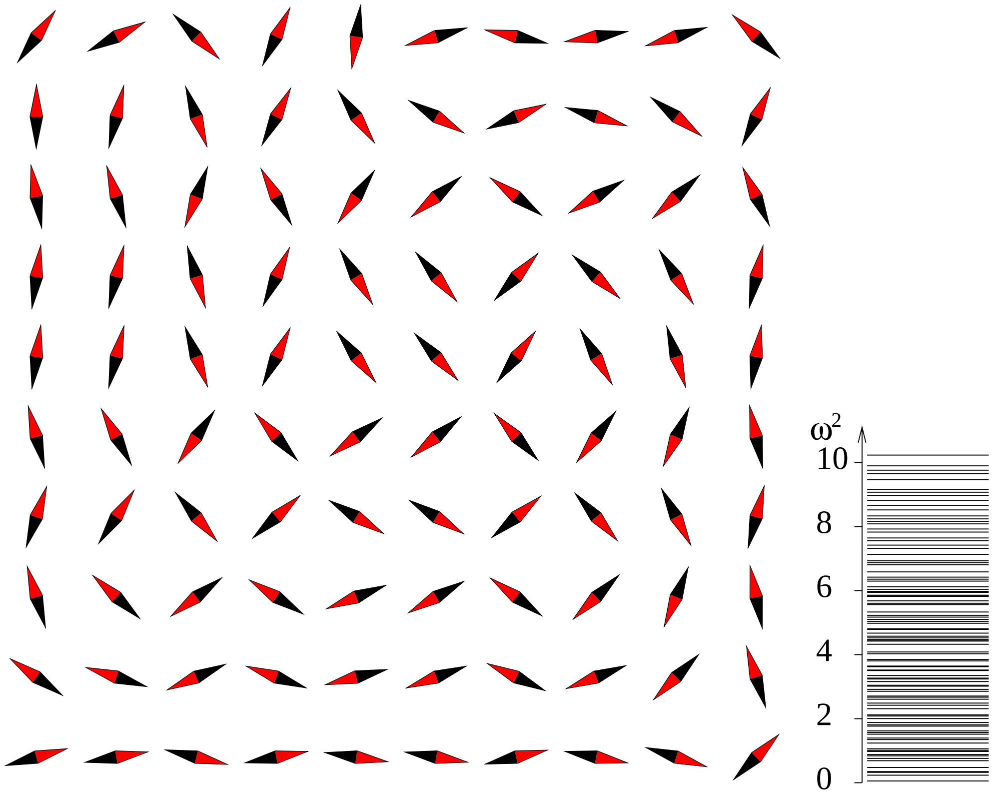
$E_6 = -239.92429$ (15 mal) $\omega_1^2 = 0.12098$



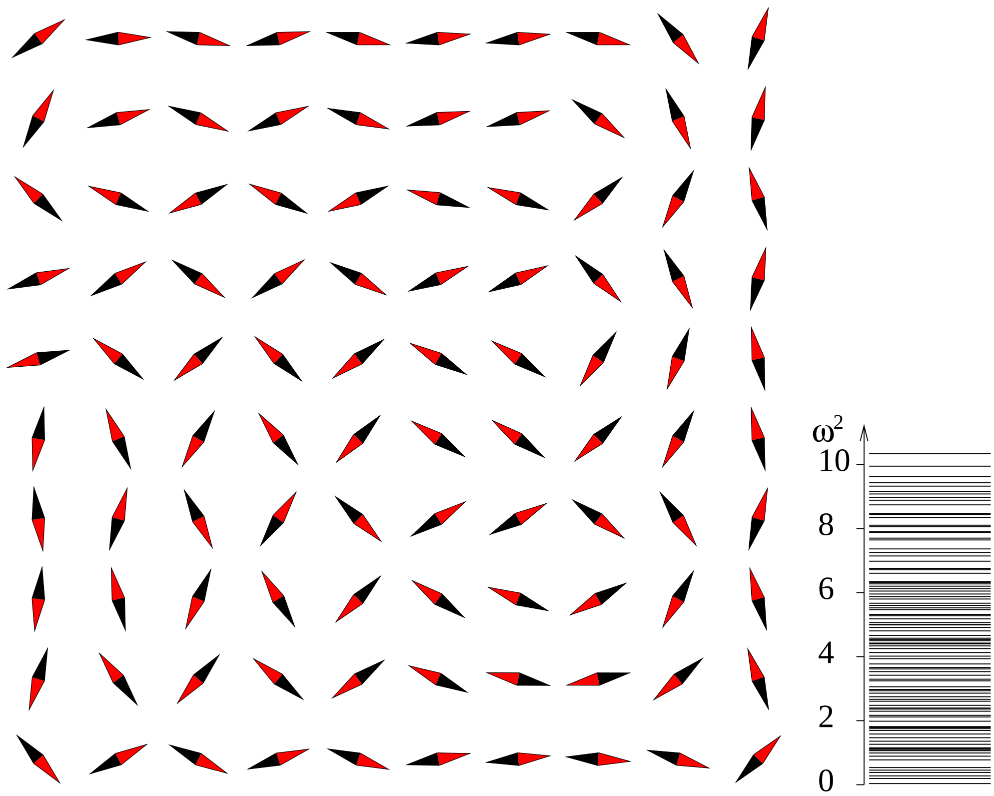
$E_7 = -239.64016$ (86 mal) $\omega_1^2 = 0.03860$



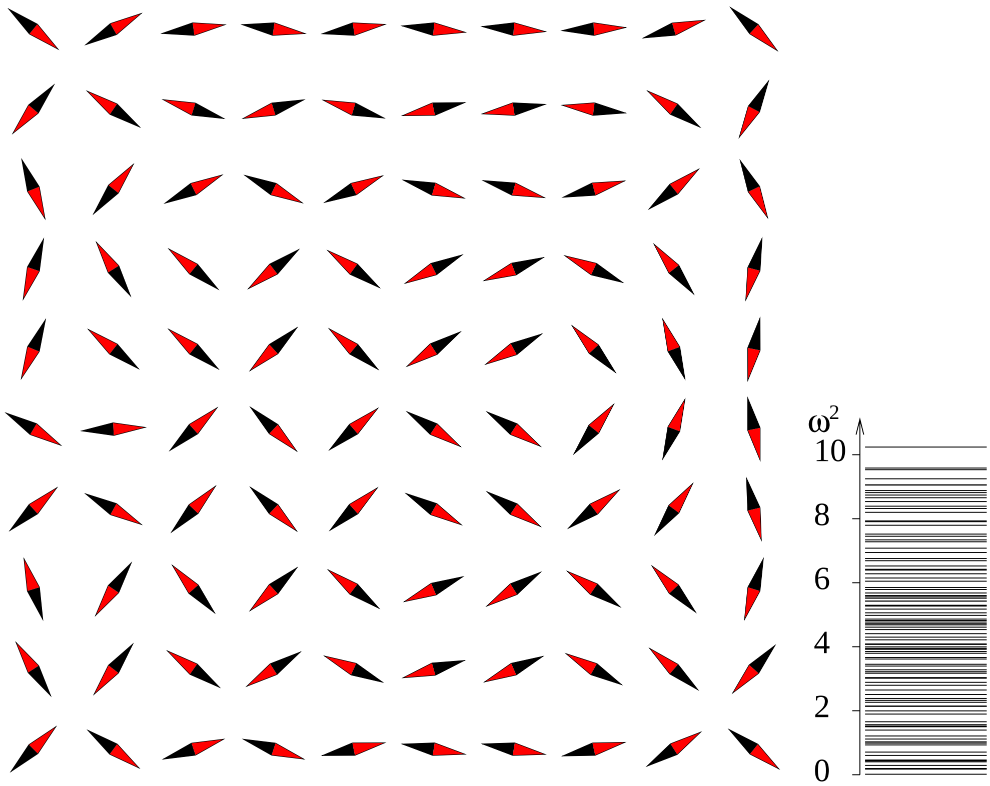
$E_{10} = -238.35931$ (54 mal) $\omega_1^2 = 0.04332$



$E_{39} = -231.28218$ (1 mal) $\omega_1^2 = 0.05433$

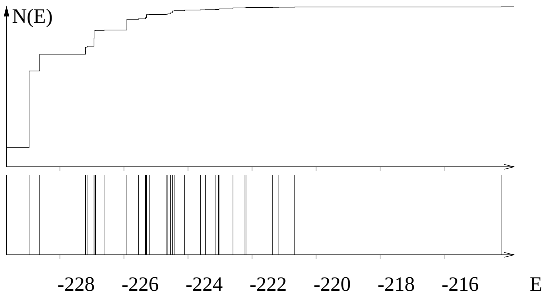


$E_{40} = -231.16190$ (1 mal) $\omega_1^2 = 0.03544$

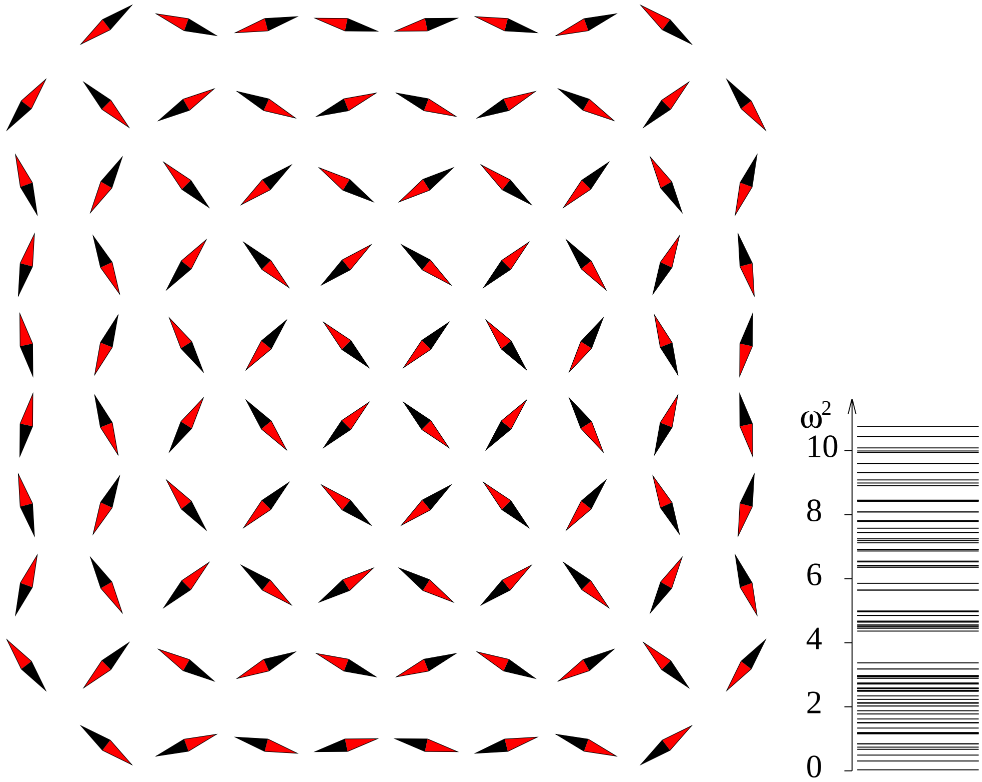


$E_{41} = -230.02521$ (2 mal) $\omega_1^2 = 0.01535$

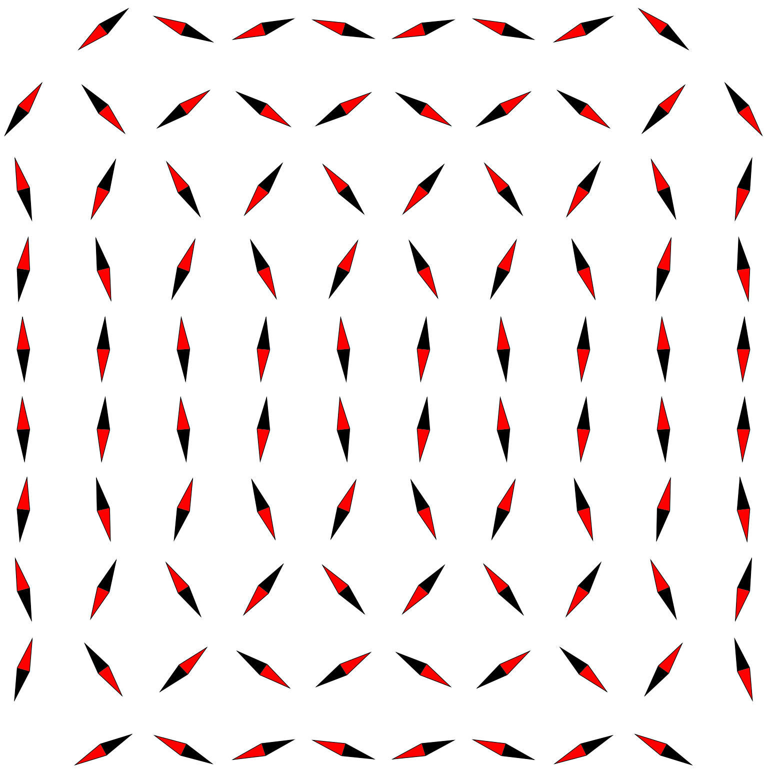
Quadratisches Gitter (9,9,1)

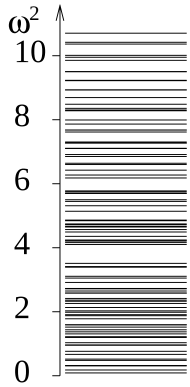


Anzahl Gitterpunkte: 96, Gefundene Energie-Niveaus: 36, Läufe: 1000

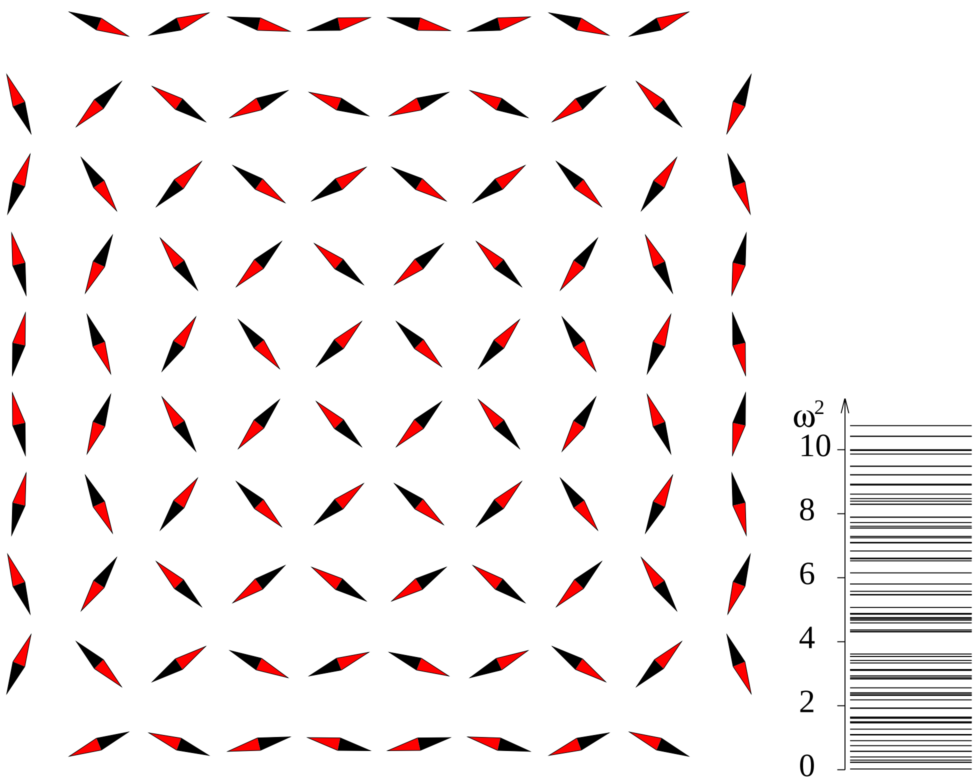


$E_1 = -229.66985$ (120 mal) $\omega_1^2 = 0.03034$

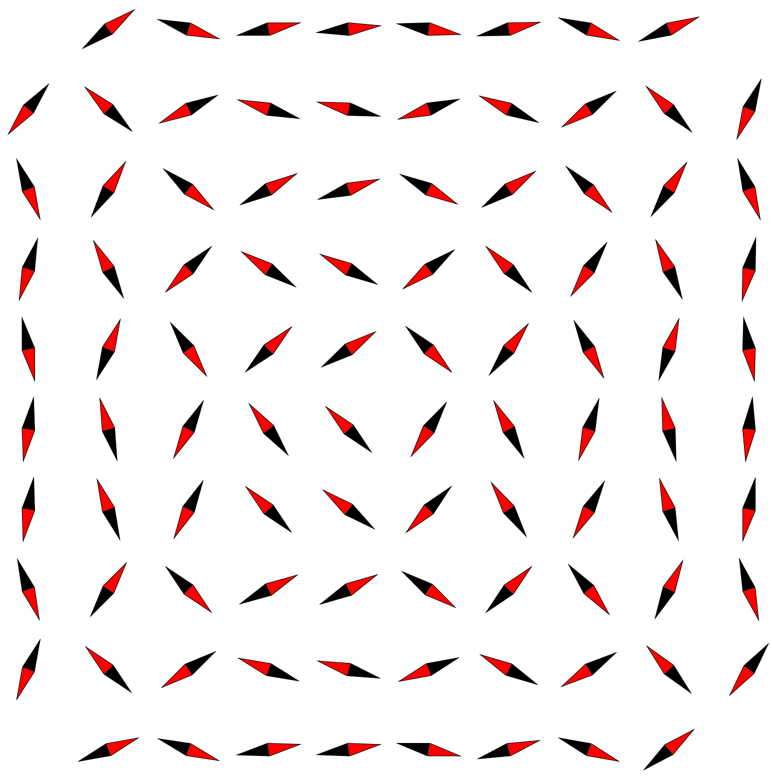


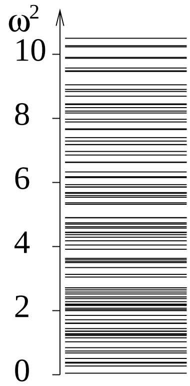


$E_2 = -228.96550$ (479 mal) $\omega_1^2 = 0.08772$

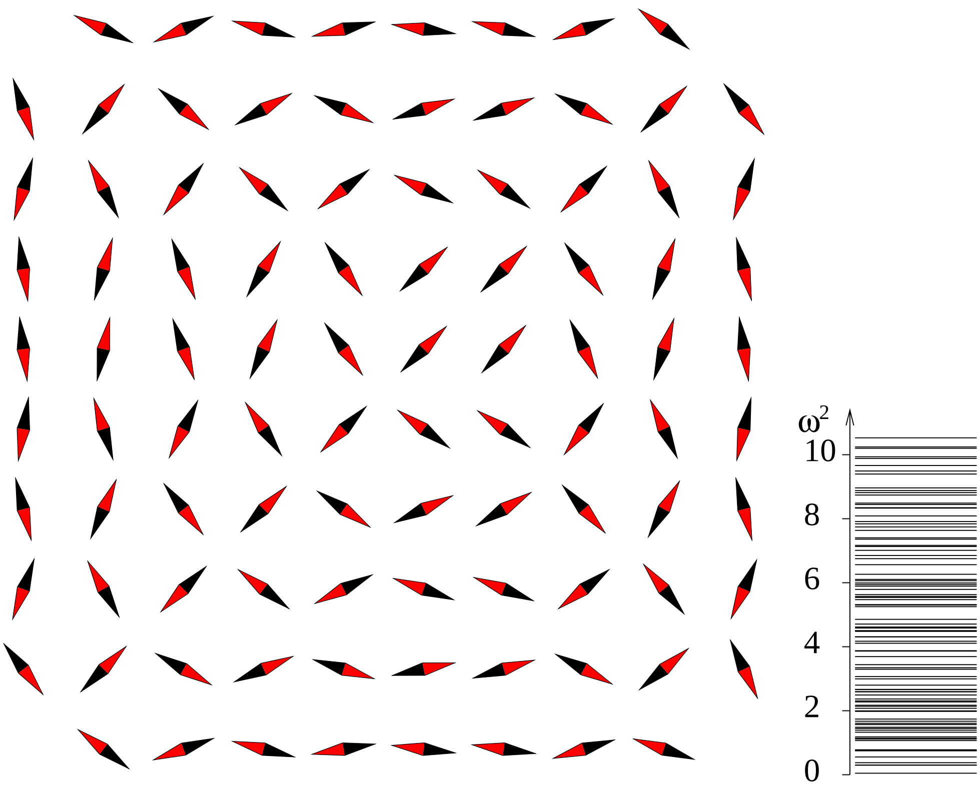


$E_3 = -228.63354$ (105 mal) $\omega_1^2 = 0.02315$

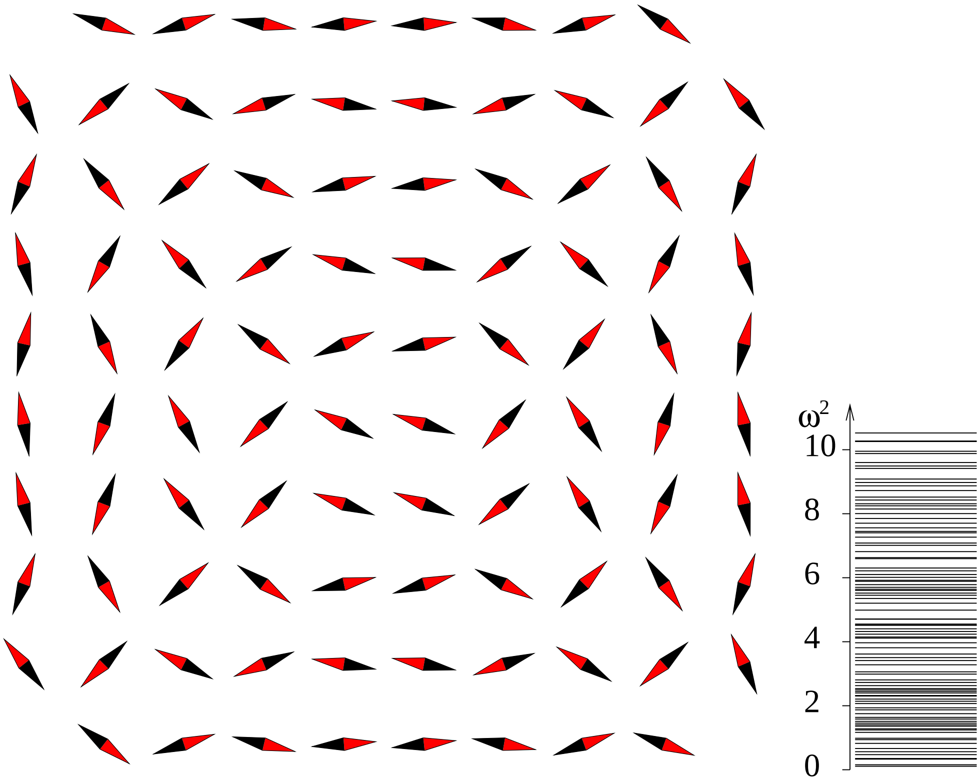




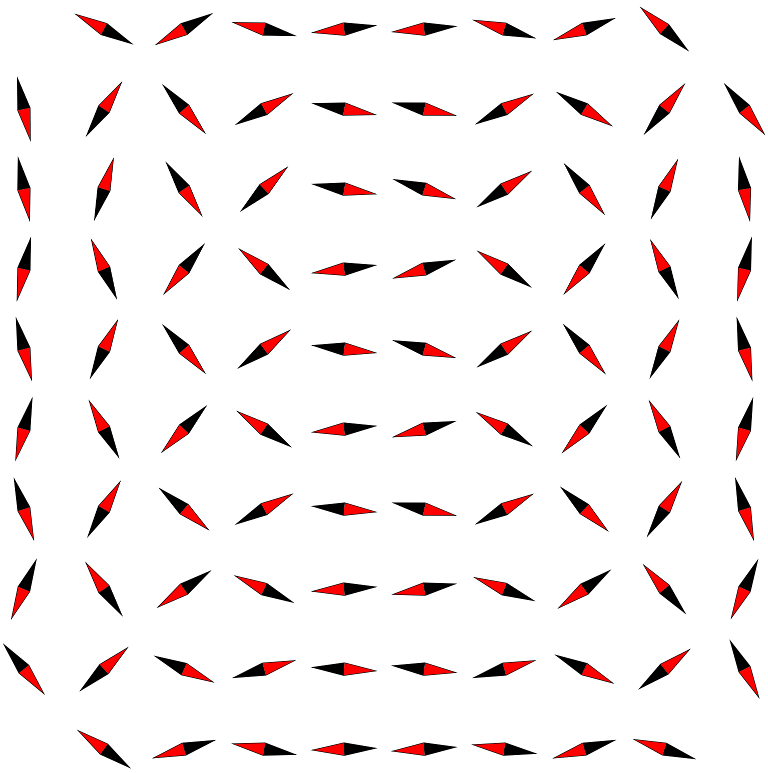
$E_4 = -227.20527$ (19 mal) $\omega_1^2 = 0.04692$

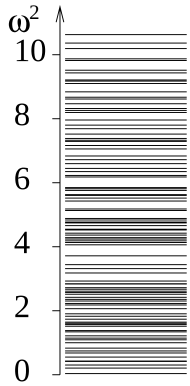


$E_5 = -227.20100$ (25 mal) $\omega_1^2 = 0.04776$

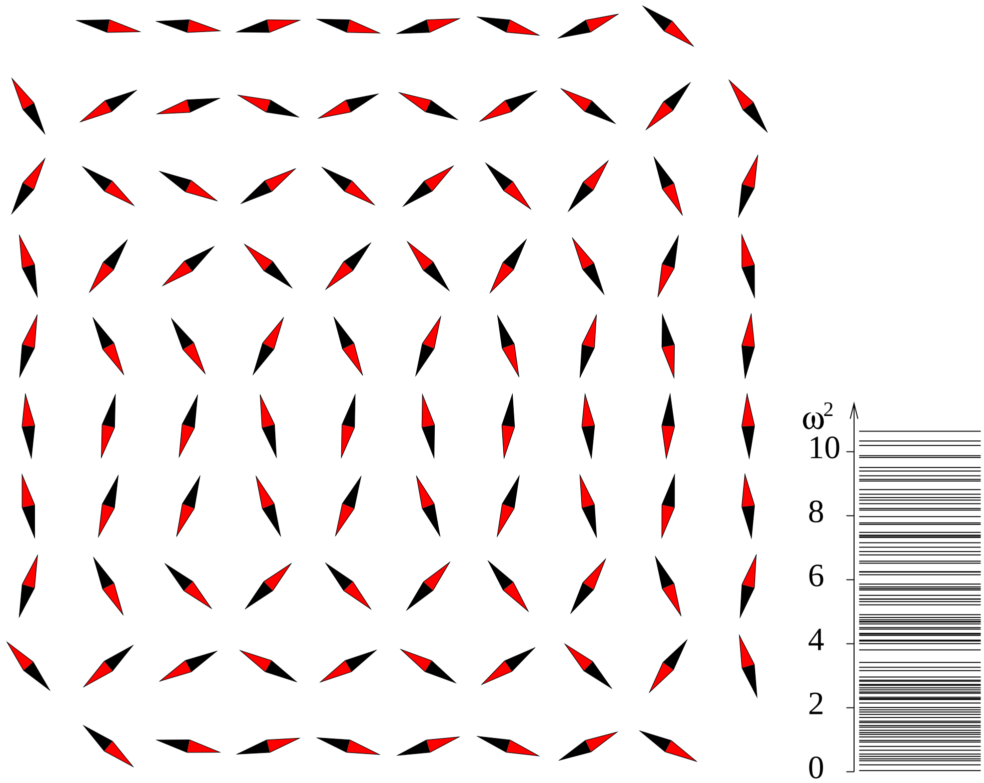


$E_6 = -227.15152$ (6 mal) $\omega_1^2 = 0.10779$

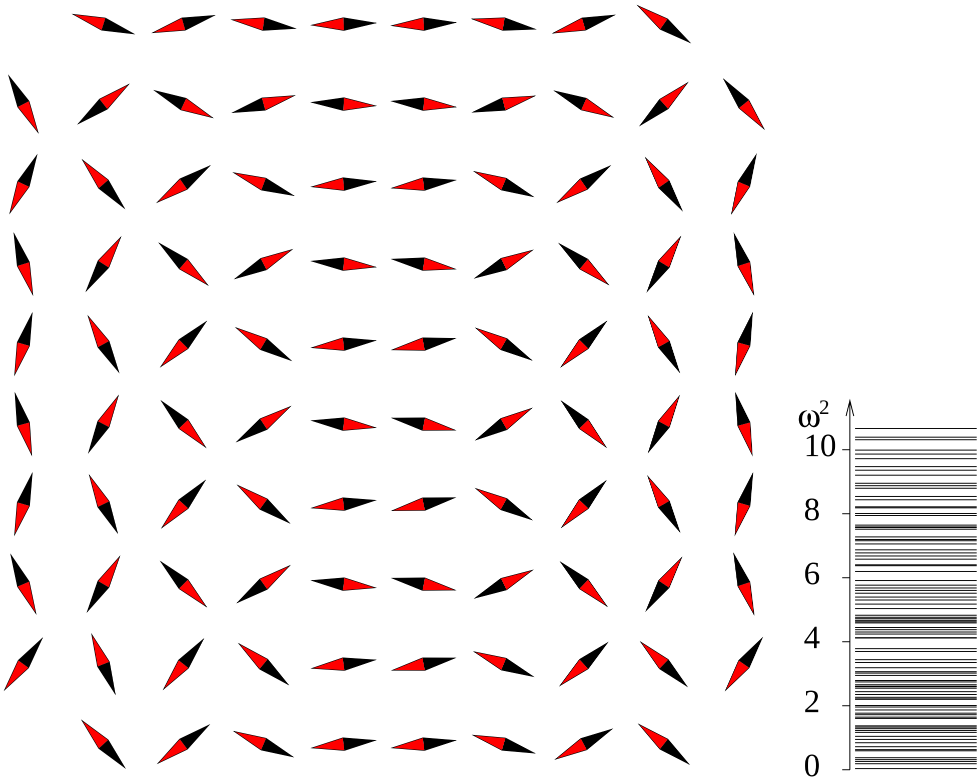




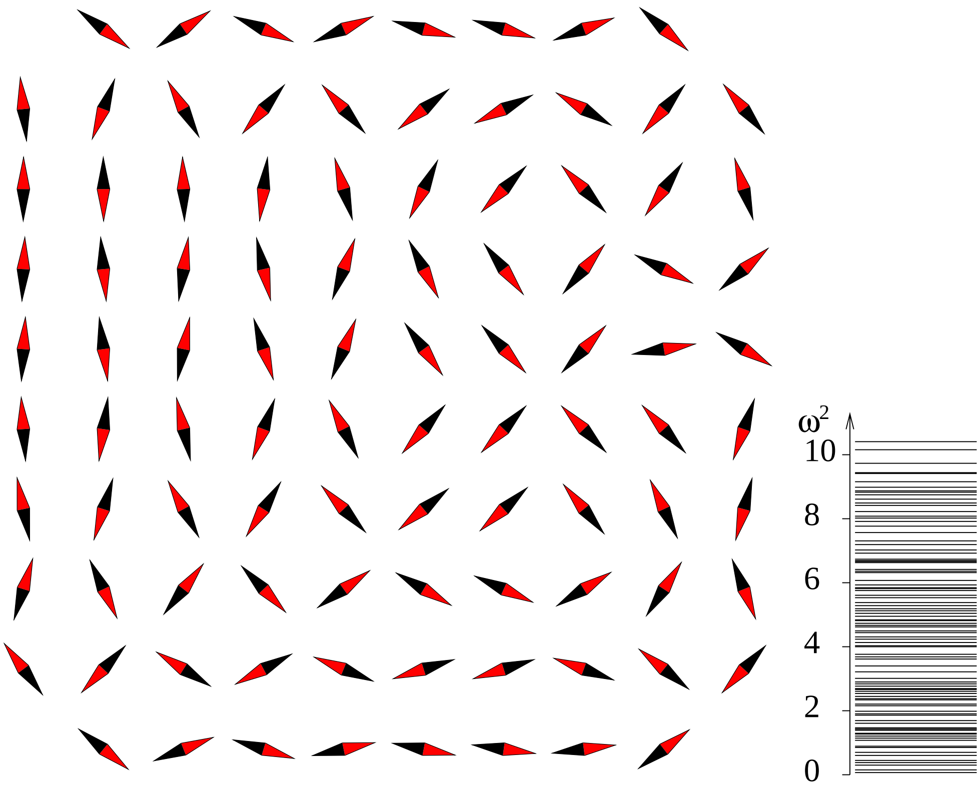
$E_7 = -226.93836$ (50 mal) $\omega_1^2 = 0.03434$



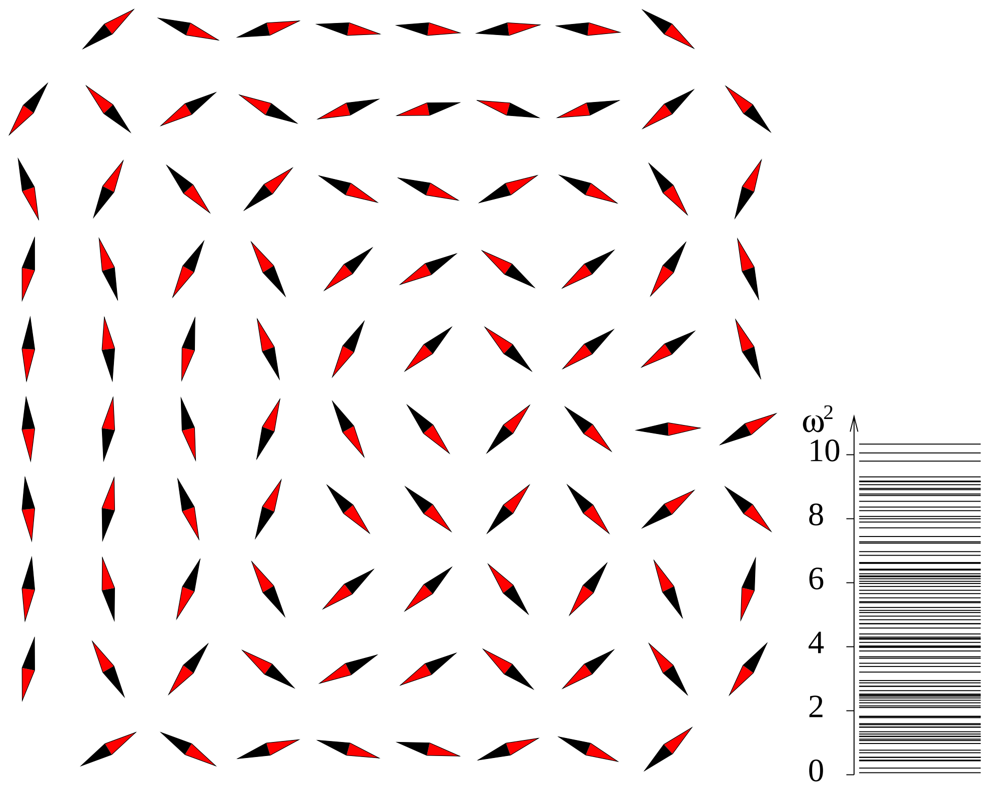
$E_8 = -226.93427$ (46 mal) $\omega_1^2 = 0.03760$



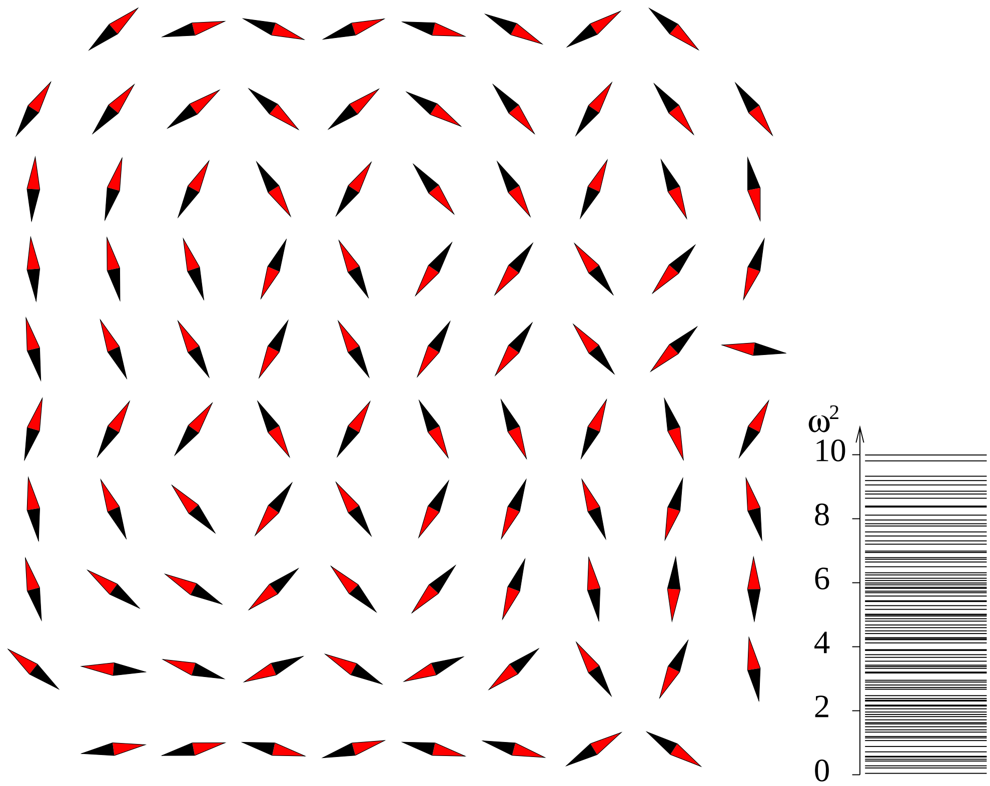
$E_{11} = -225.90957$ (67 mal) $\omega_1^2 = 0.03603$



$E_{34} = -221.15876$ (1 mal) $\omega_1^2 = 0.06959$

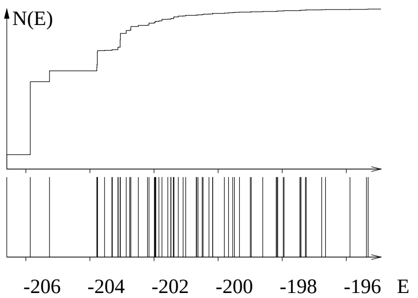


$E_{35} = -220.66409$ (1 mal) $\omega_1^2 = 0.06345$

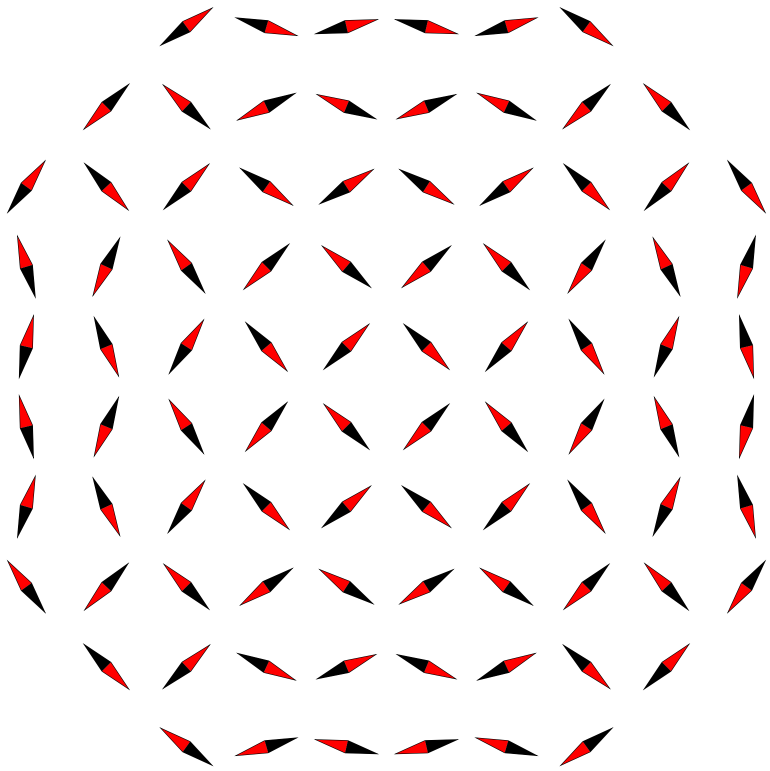


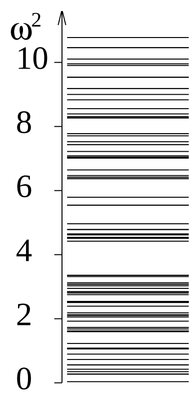
$E_{36} = -214.21803$ (1 mal) $\omega_1^2 = 0.04568$

Quadratisches Gitter (9,9,2)

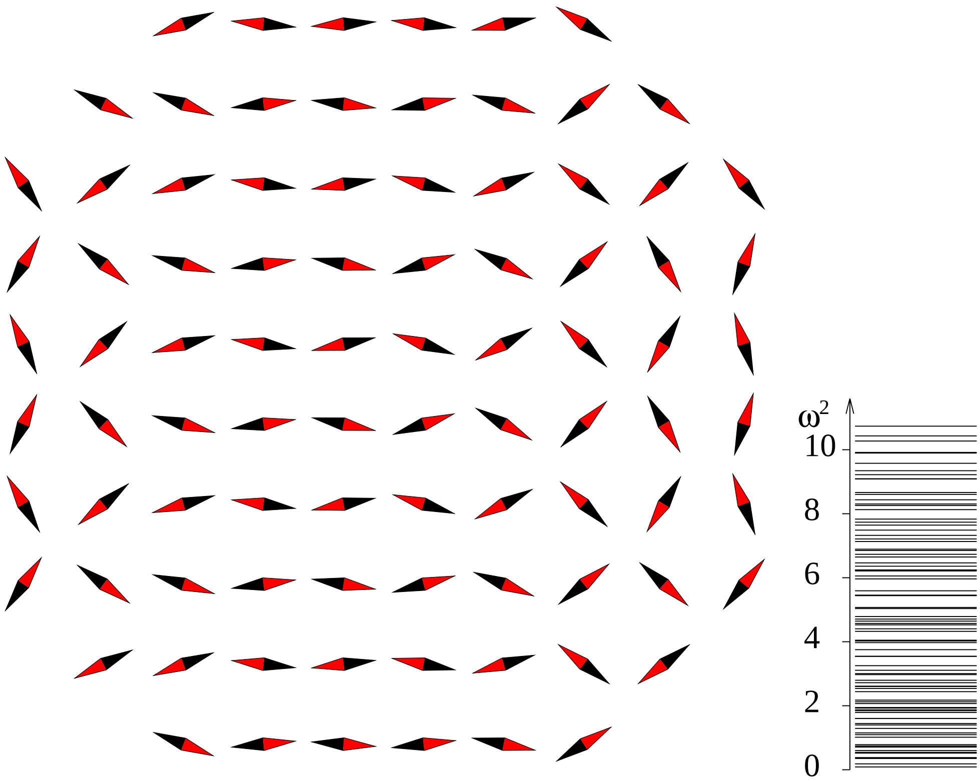


Anzahl Gitterpunkte: 88, Gefundene Energie-Niveaus: 67, Läufe: 1000

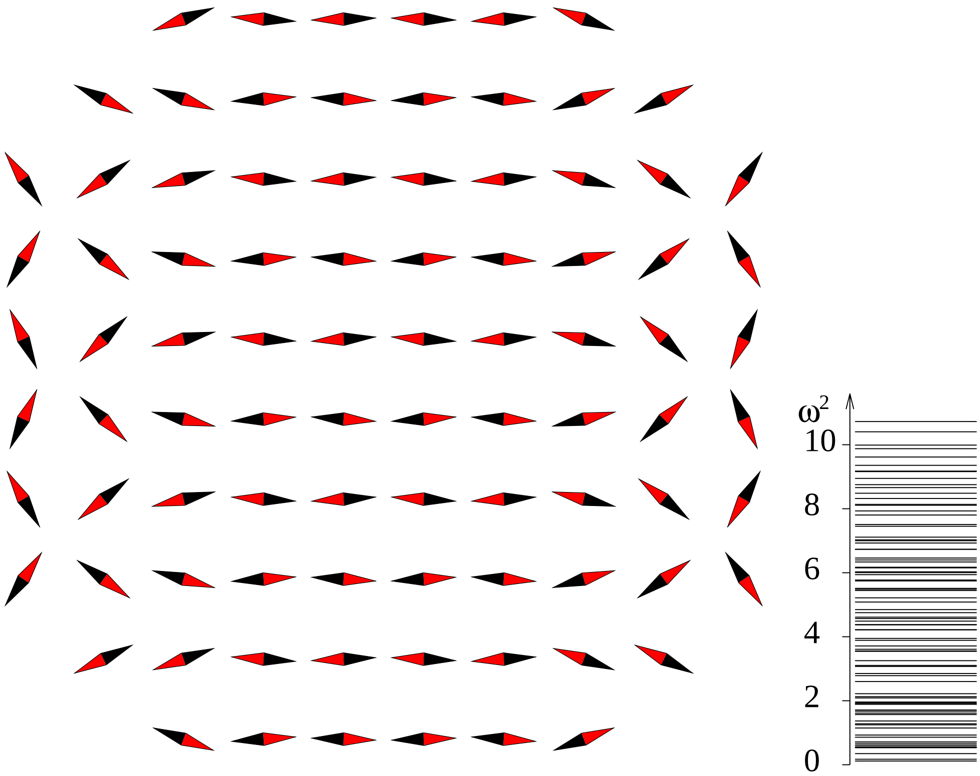




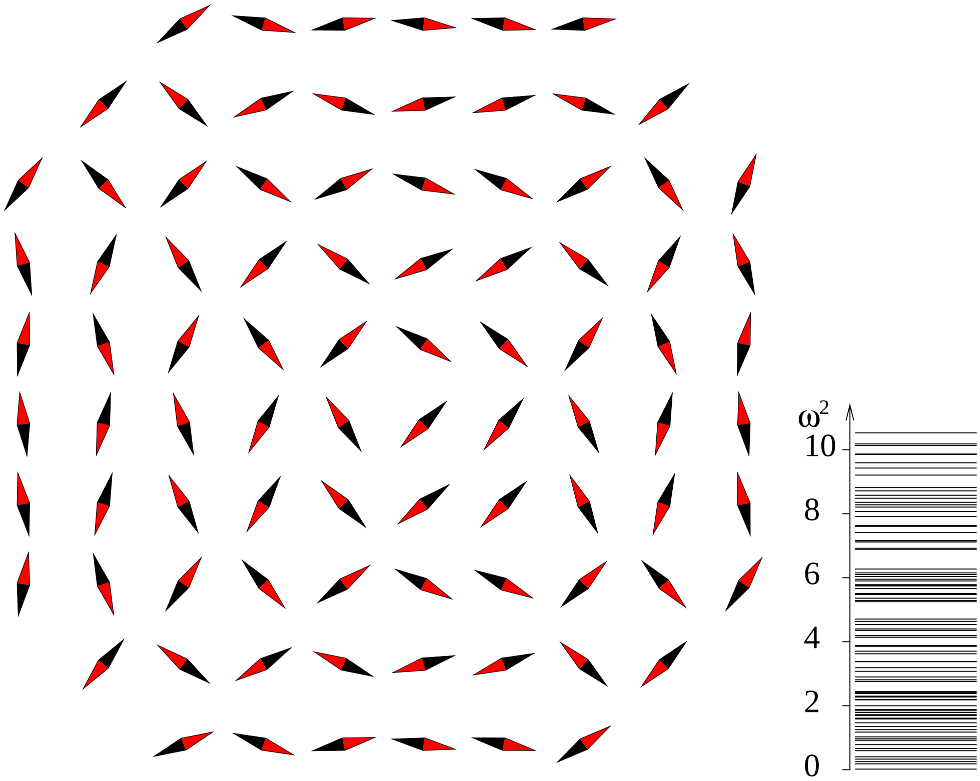
$E_1 = -206.59601$ (90 mal) $\omega_1^2 = 0.03767$



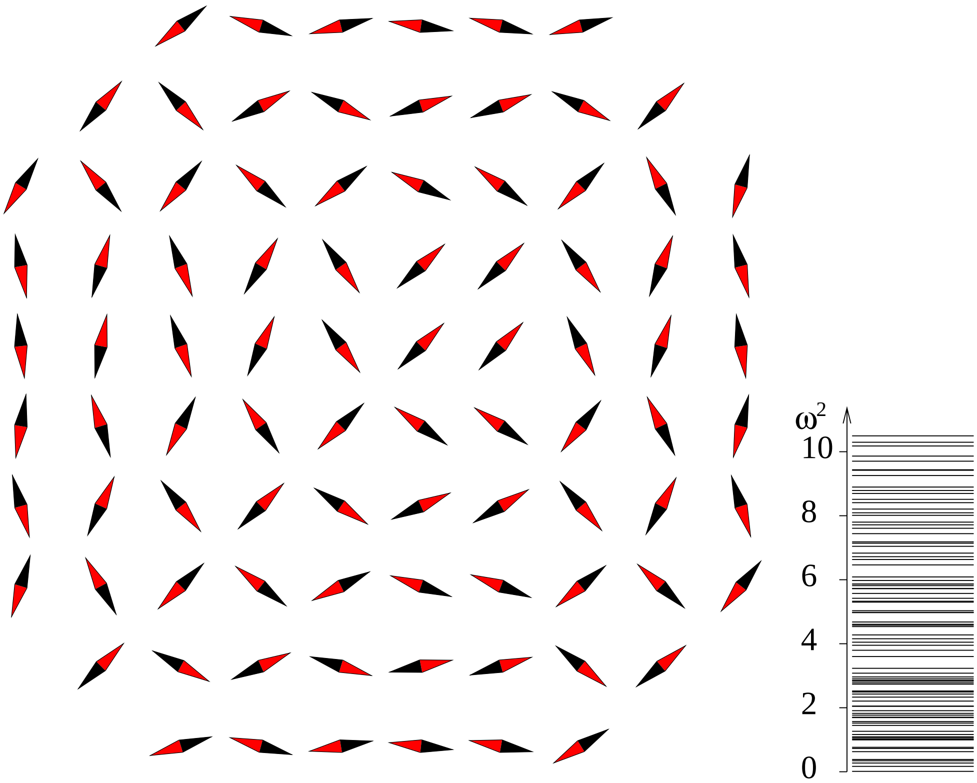
$E_2 = -205.86405$ (456 mal) $\omega_1^2 = 0.08662$



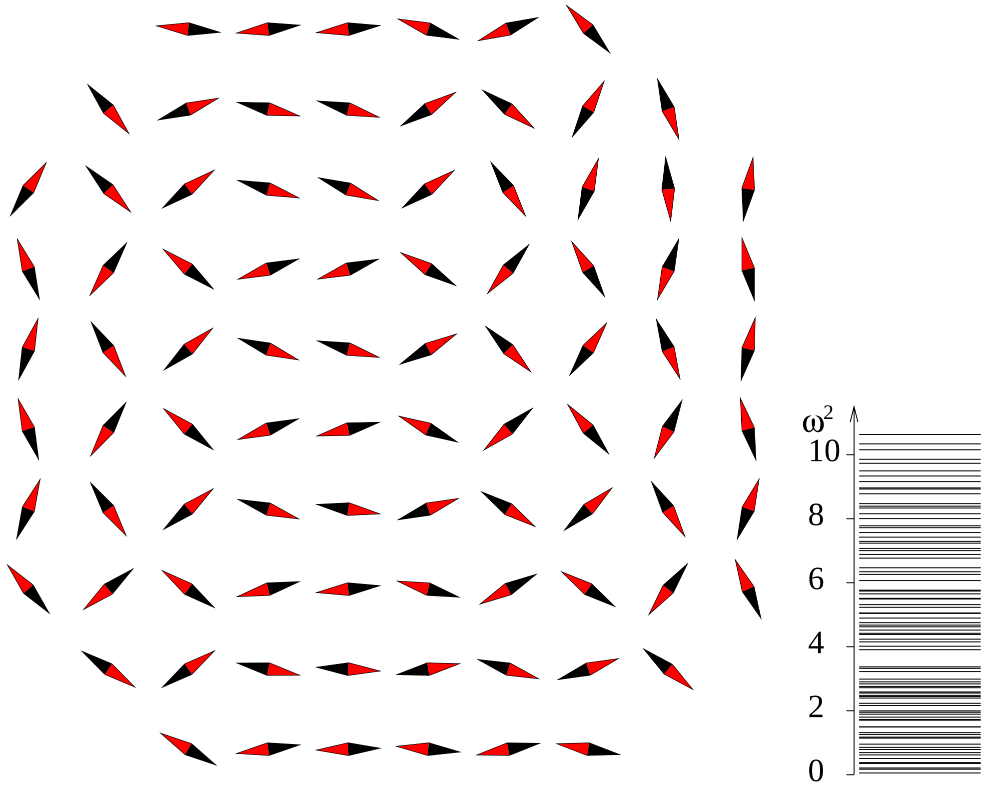
$E_3 = -205.26246$ (68 mal) $\omega_1^2 = 0.11468$



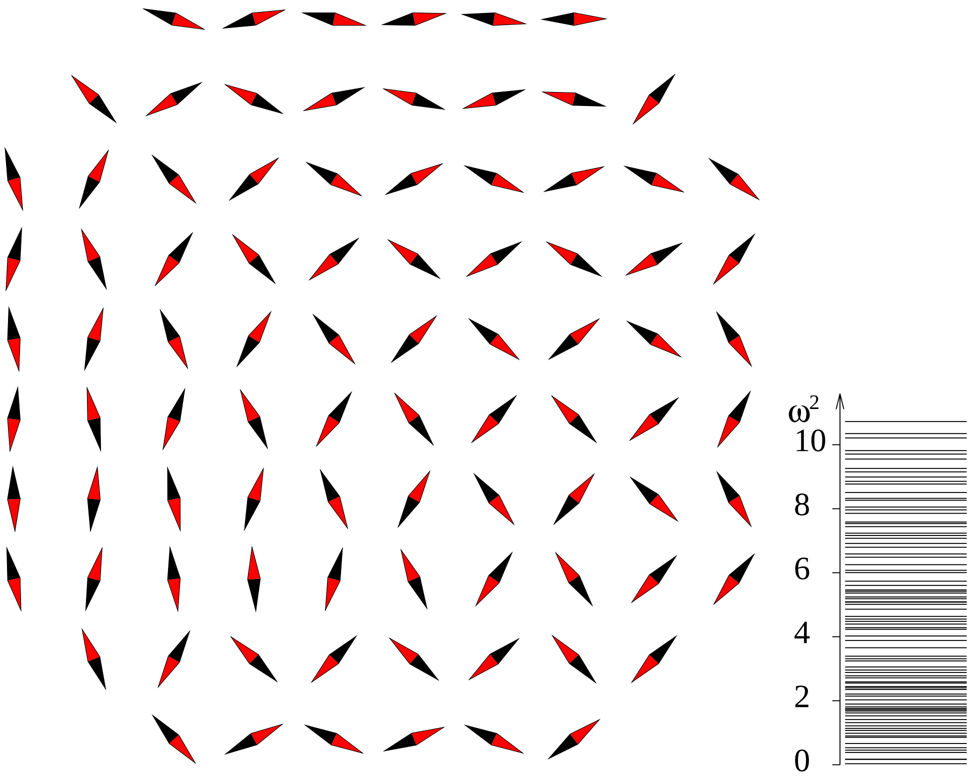
$E_4 = -203.78602$ (23 mal) $\omega_1^2 = 0.01921$



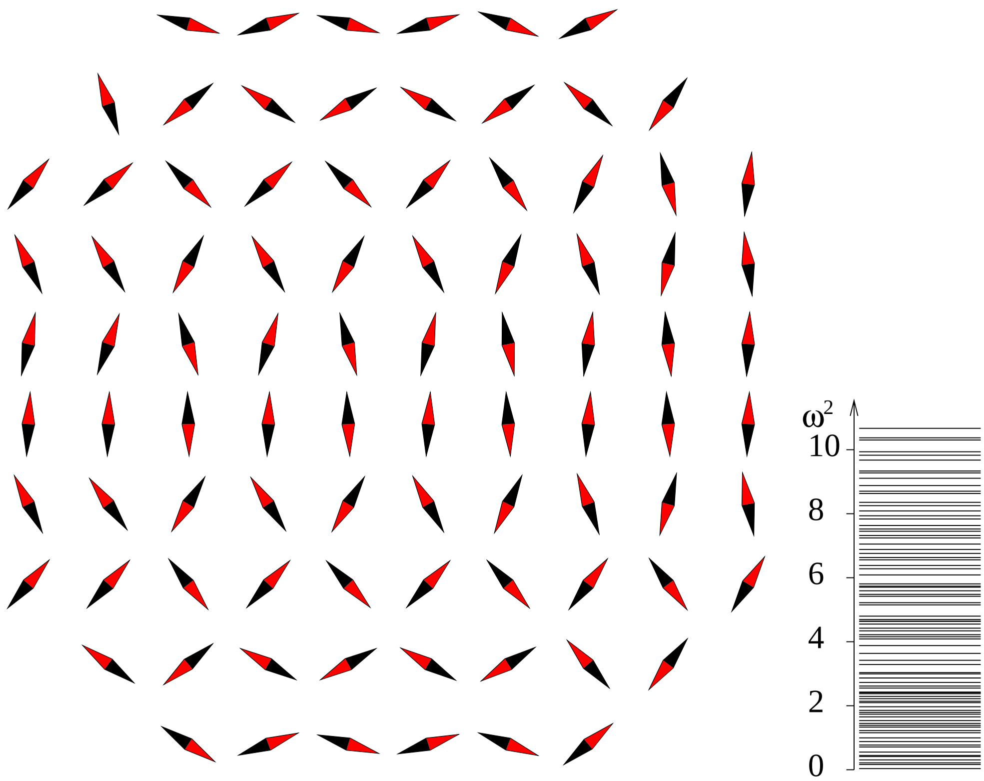
$E_5 = -203.78211$ (17 mal) $\omega_1^2 = 0.01382$



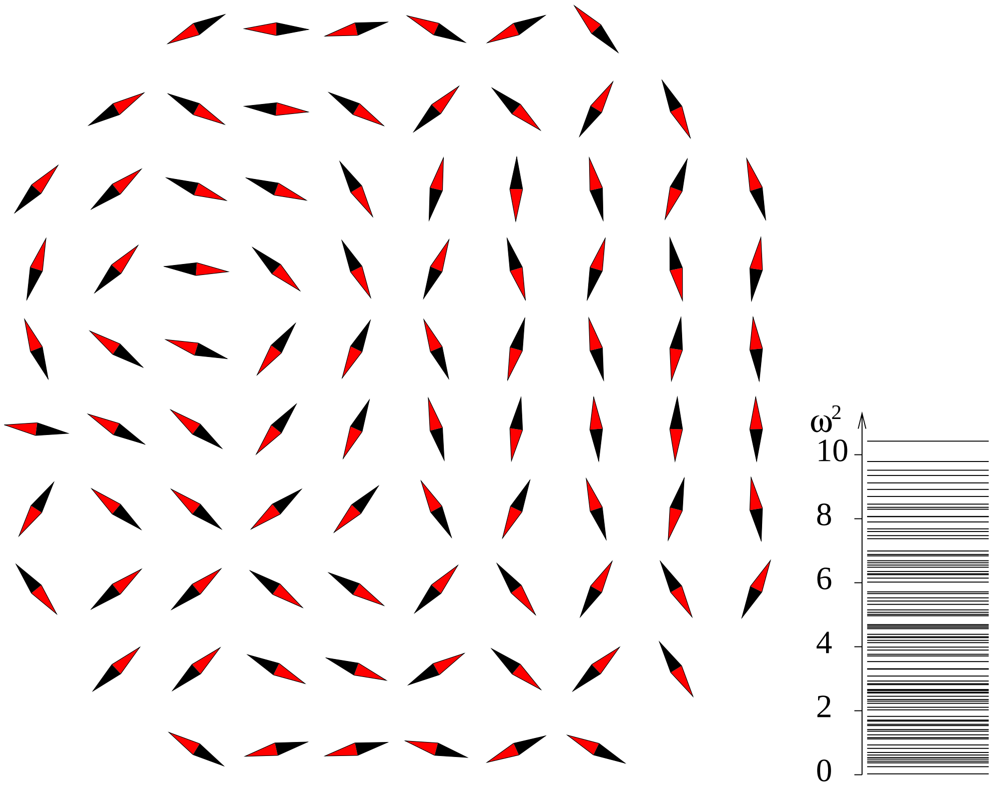
$E_6 = -203.77158$ (76 mal) $\omega_1^2 = 0.05707$



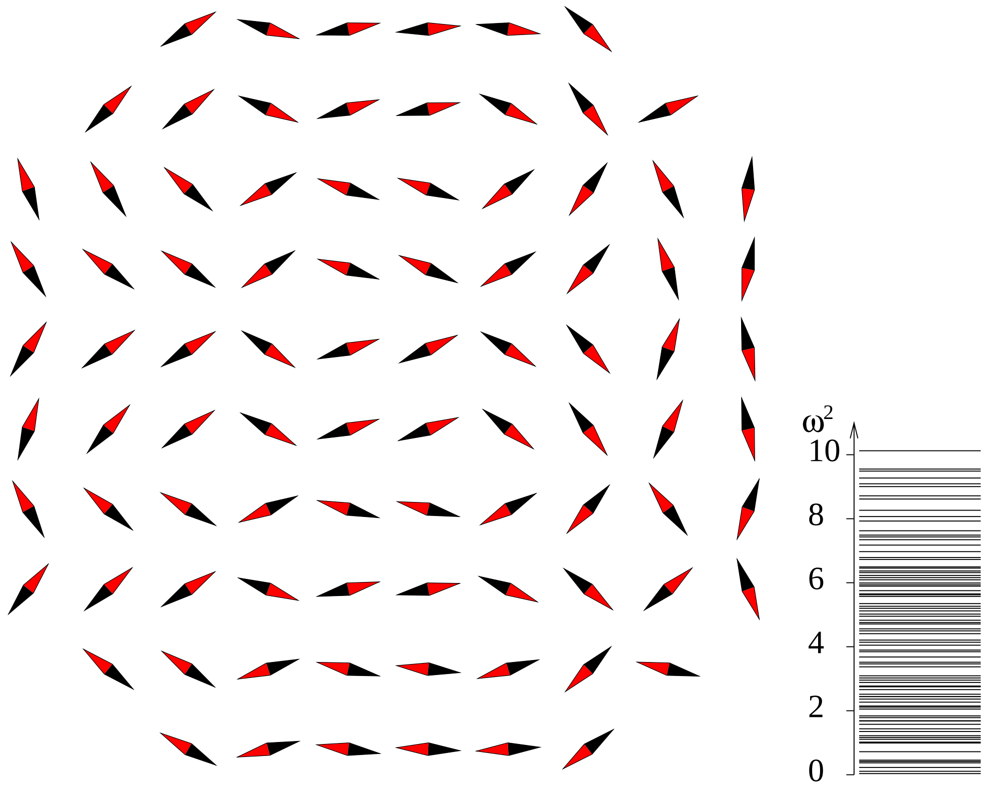
$E_{13} = -203.05771$ (46 mal) $\omega_1^2 = 0.03188$



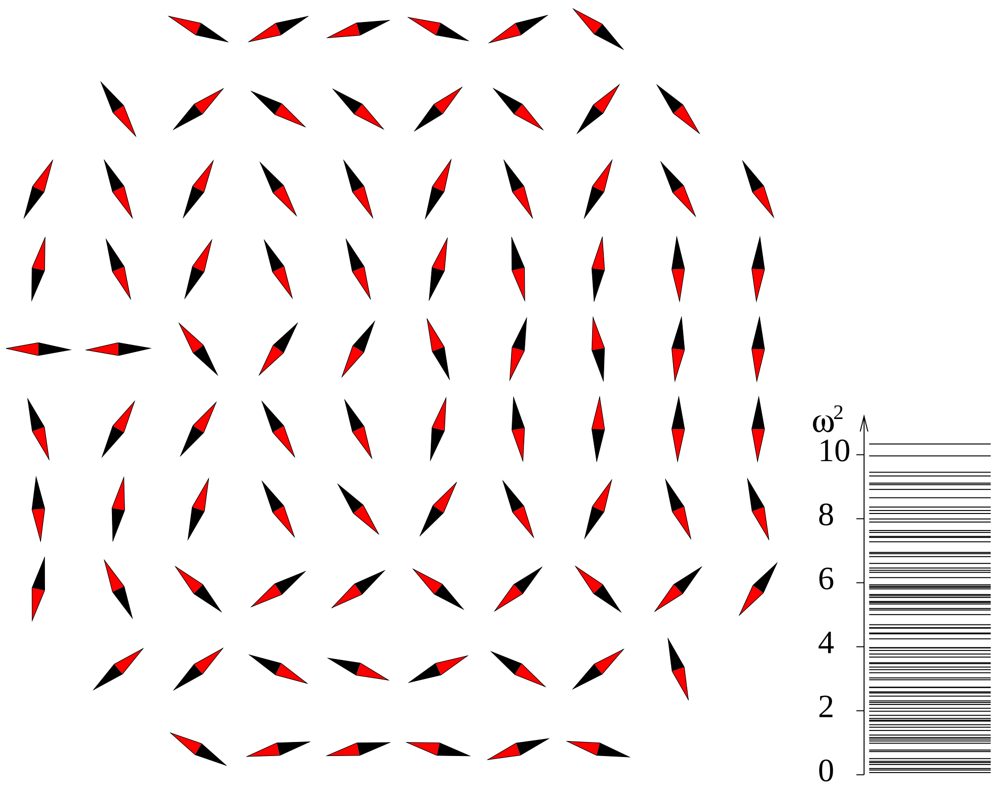
$E_{14} = -203.05158$ (40 mal) $\omega_1^2 = 0.03671$



$E_{65} = -195.88618$ (1 mal) $\omega_1^2 = 0.02653$

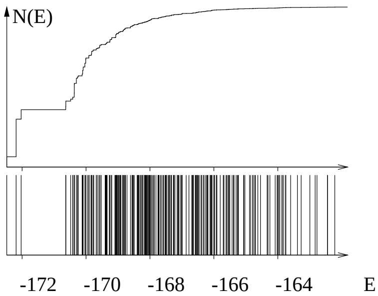


$E_{66} = -195.37124$ (1 mal) $\omega_1^2 = 0.03594$

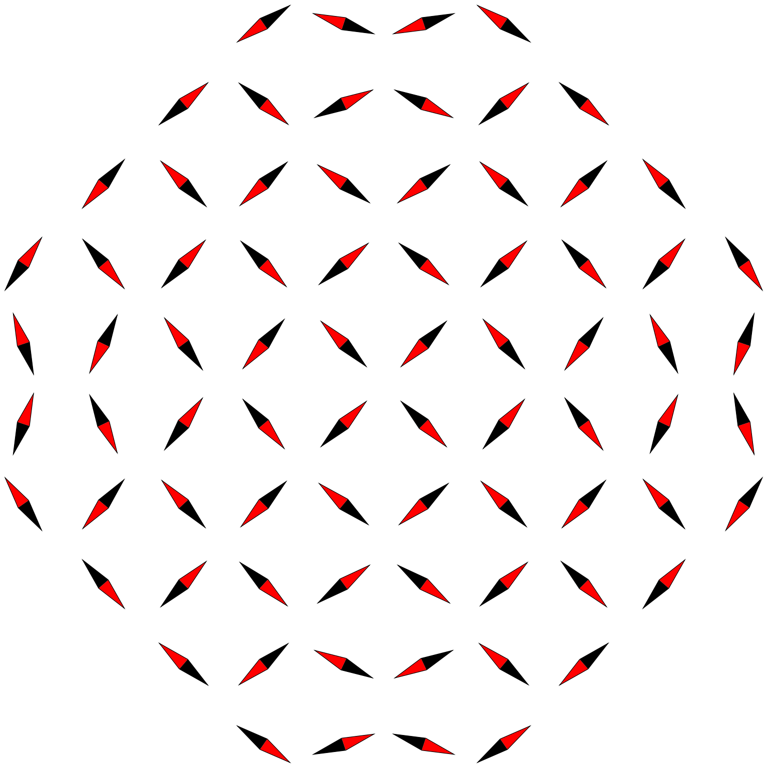


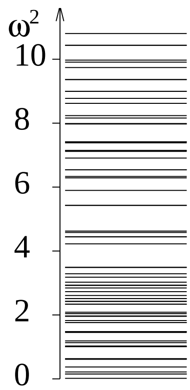
$E_{67} = -195.31943$ (1 mal) $\omega_1^2 = 0.06843$

Quadratisches Gitter (9,9,3)

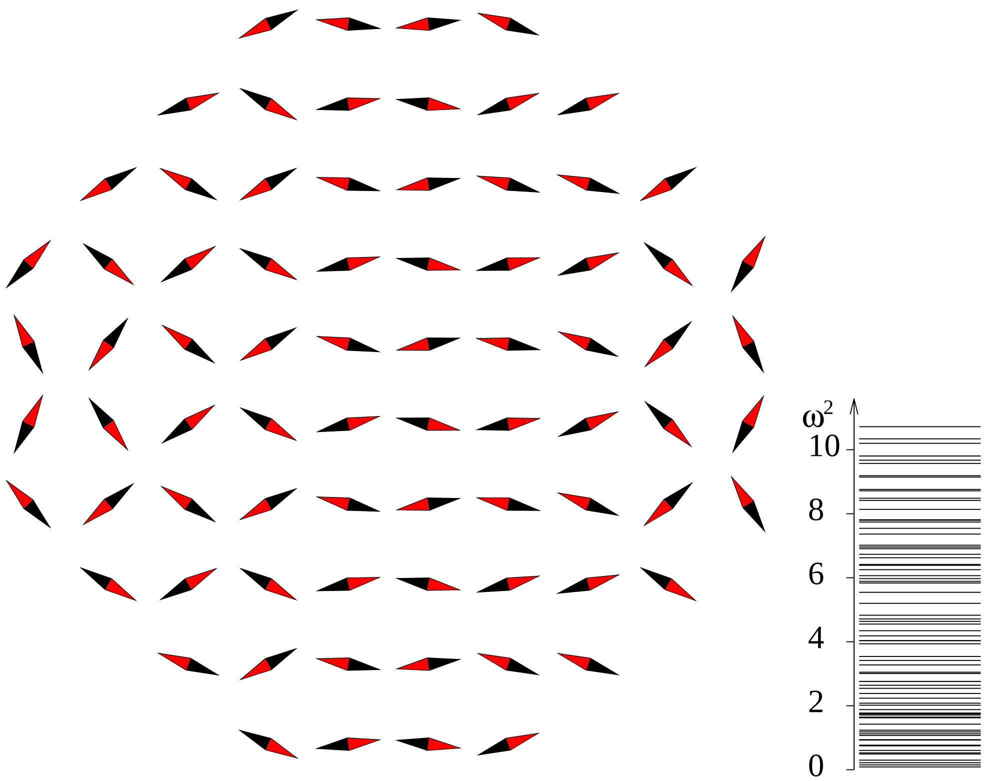


Anzahl Gitterpunkte: 76, Gefundene Energie-Niveaus: 234, Läufe: 3000

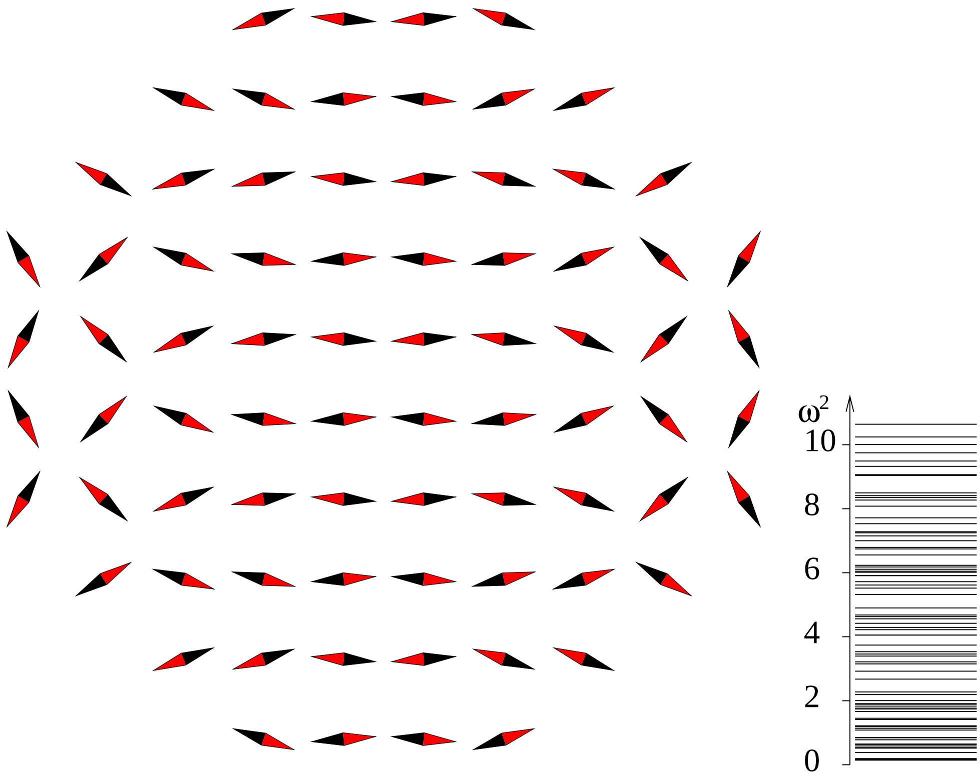




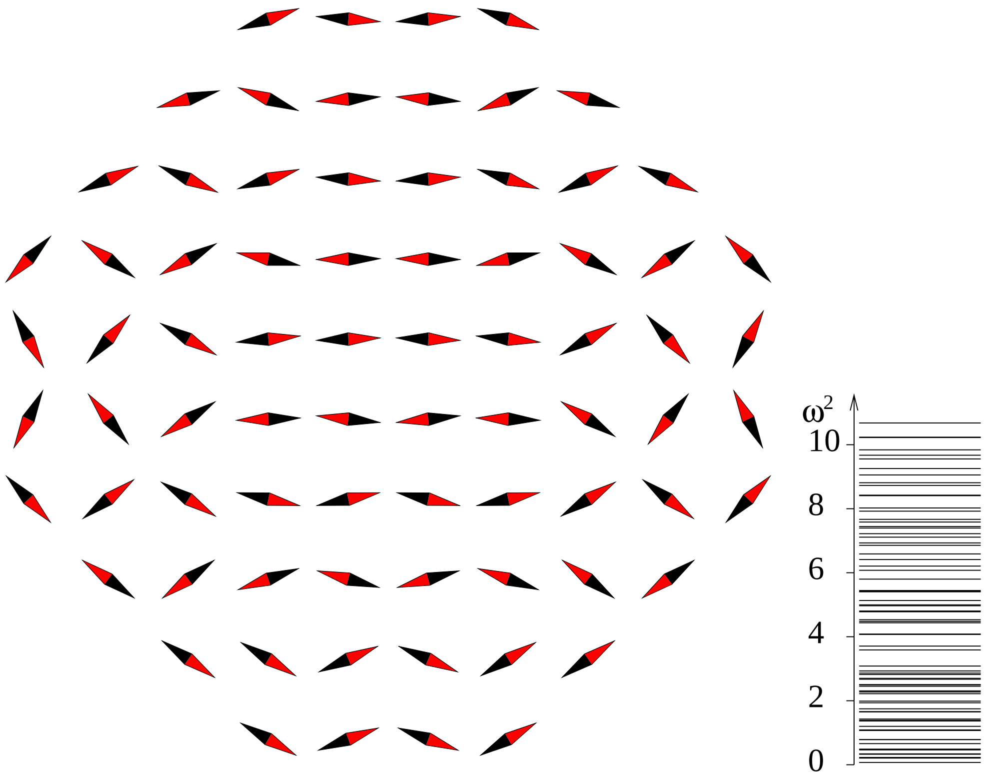
$E_1 = -172.47883$ (193 mal) $\omega_1^2 = 0.01551$



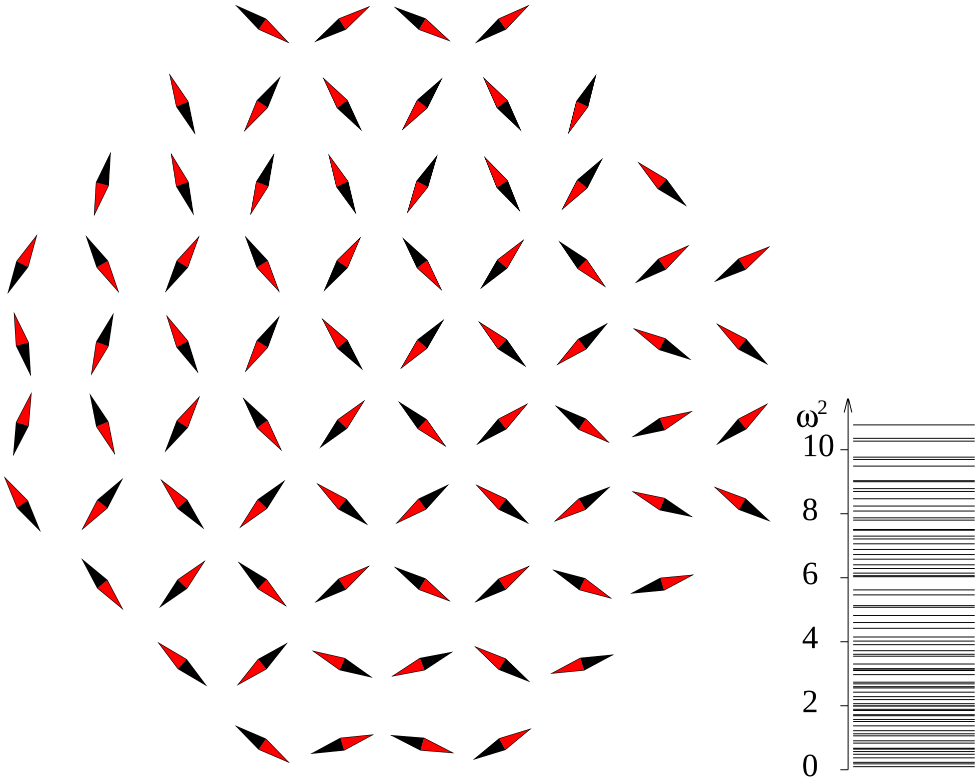
$E_2 = -172.18595$ (706 mal) $\omega_1^2 = 0.08708$



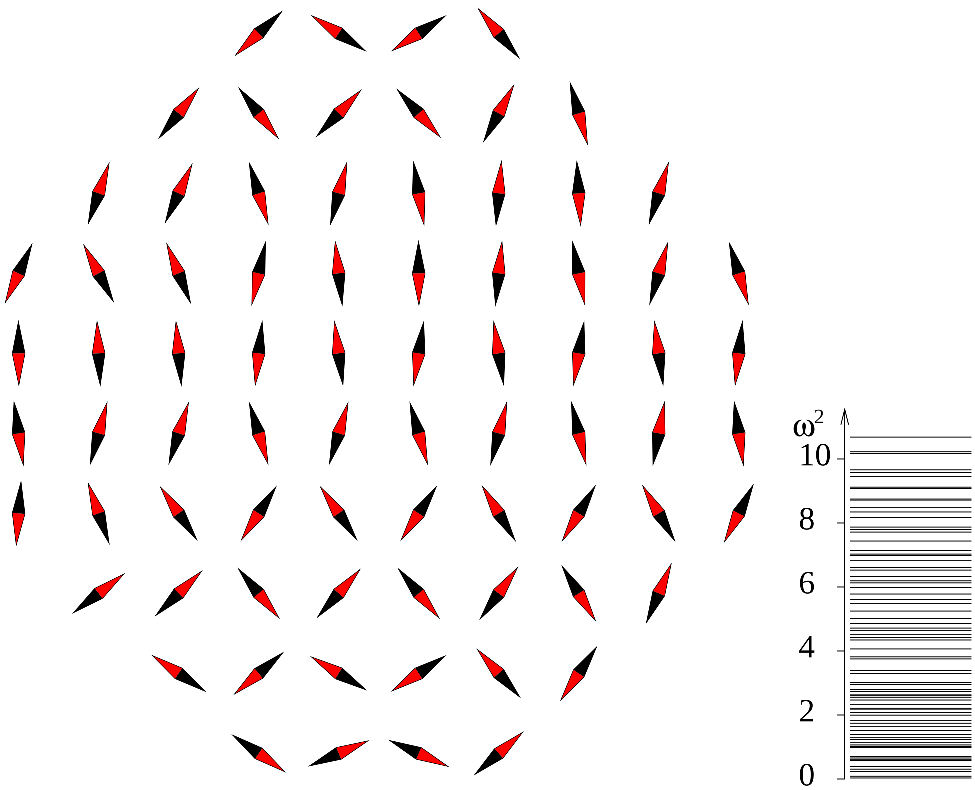
$E_3 = -172.02796$ (176 mal) $\omega_1^2 = 0.14495$



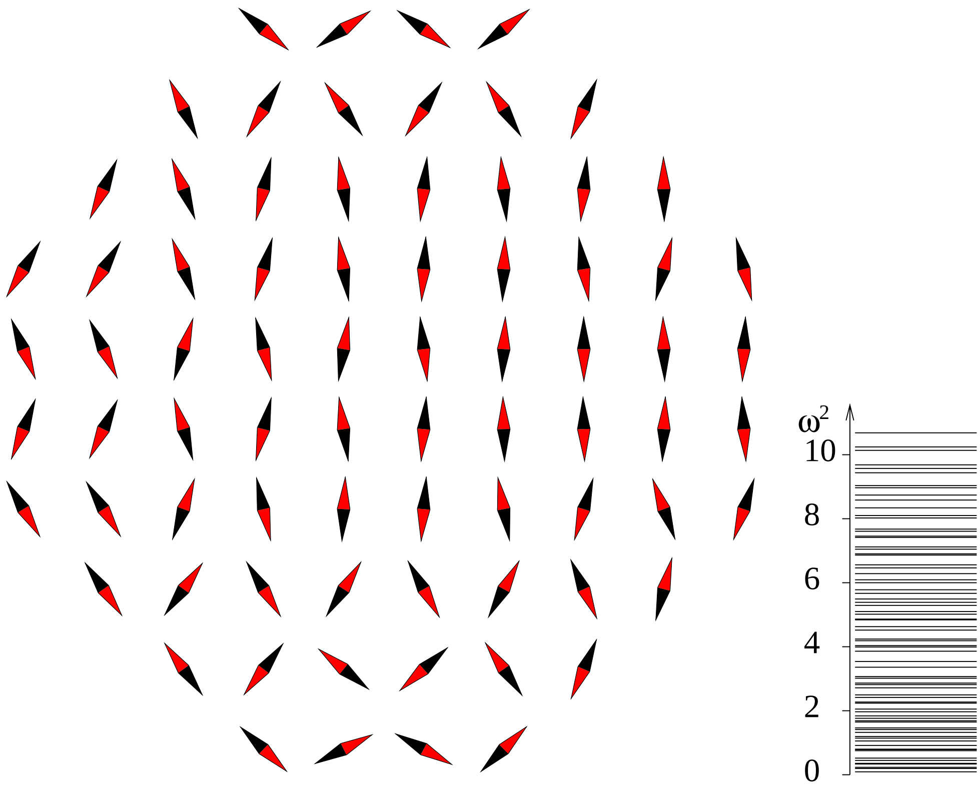
$E_4 = -170.63456$ (62 mal) $\omega_1^2 = 0.07252$



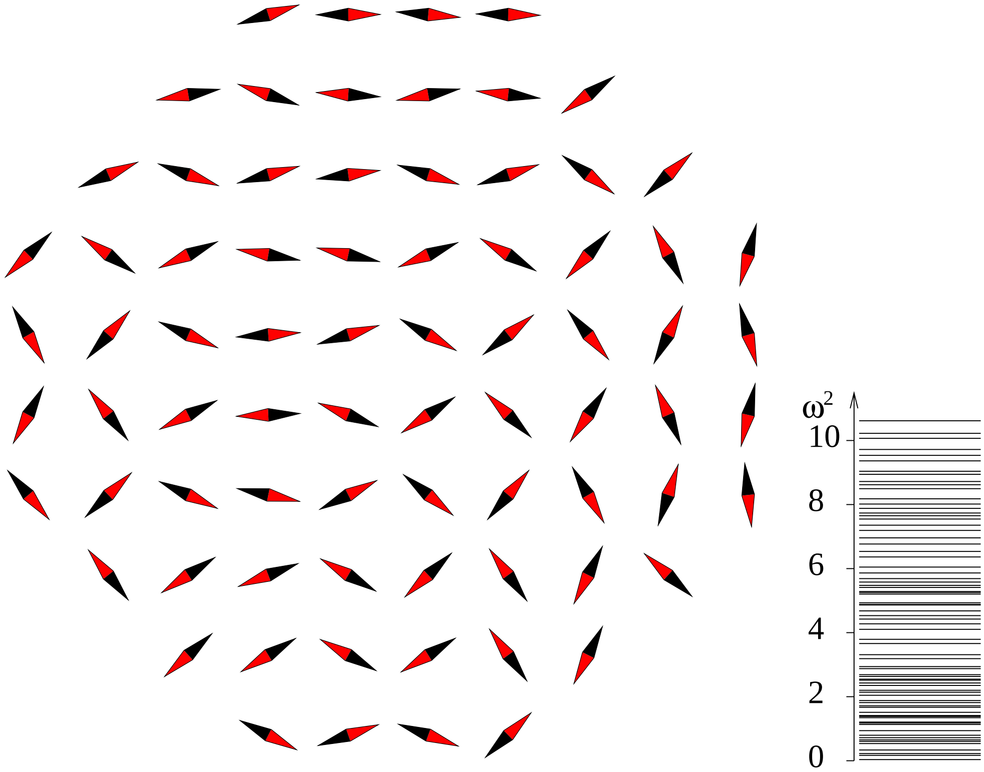
$E_5 = -170.63086$ (101 mal) $\omega_1^2 = 0.09745$



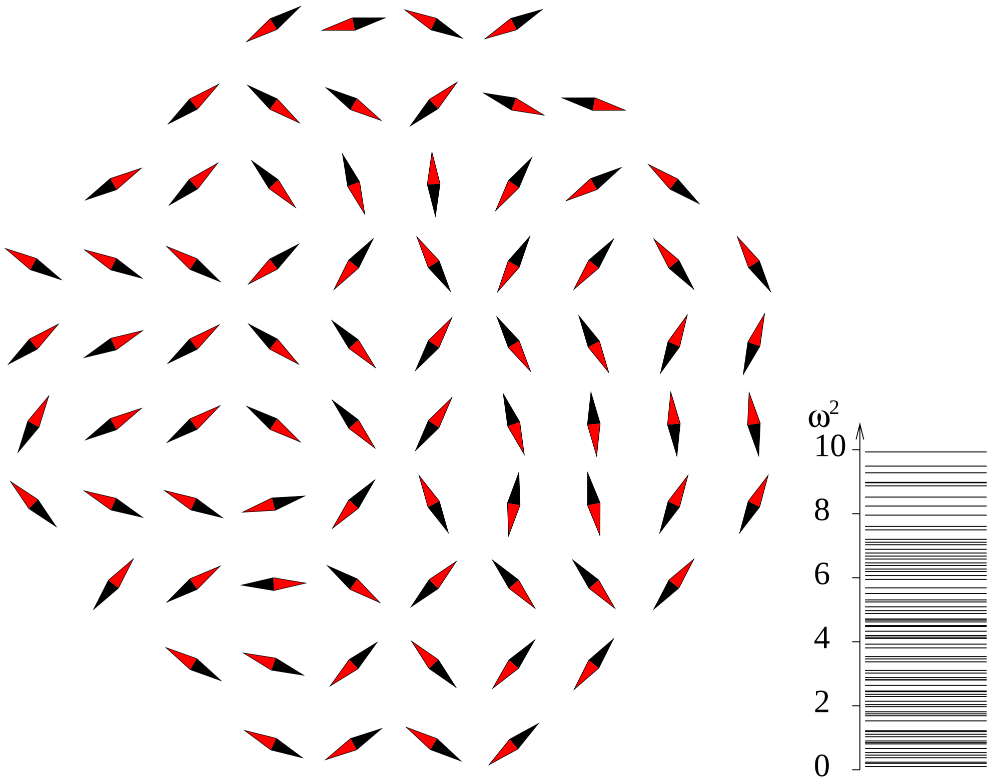
$E_6 = -170.47777$ (36 mal) $\omega_1^2 = 0.03181$



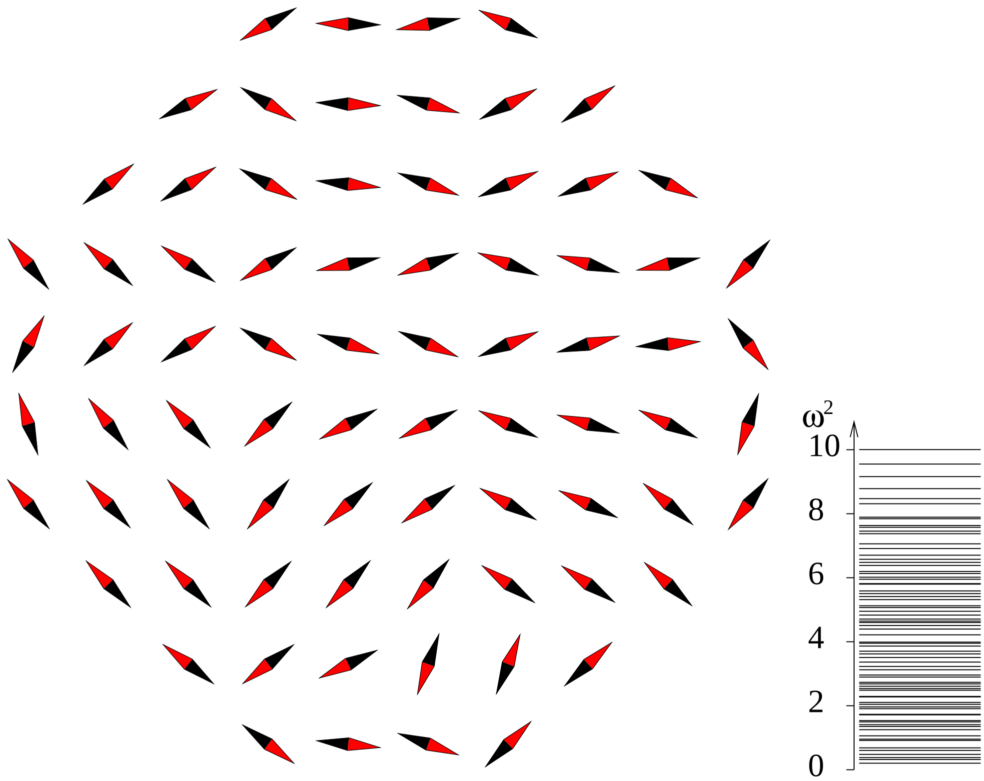
$E_{10} = -170.36740$ (164 mal) $\omega_1^2 = 0.09100$



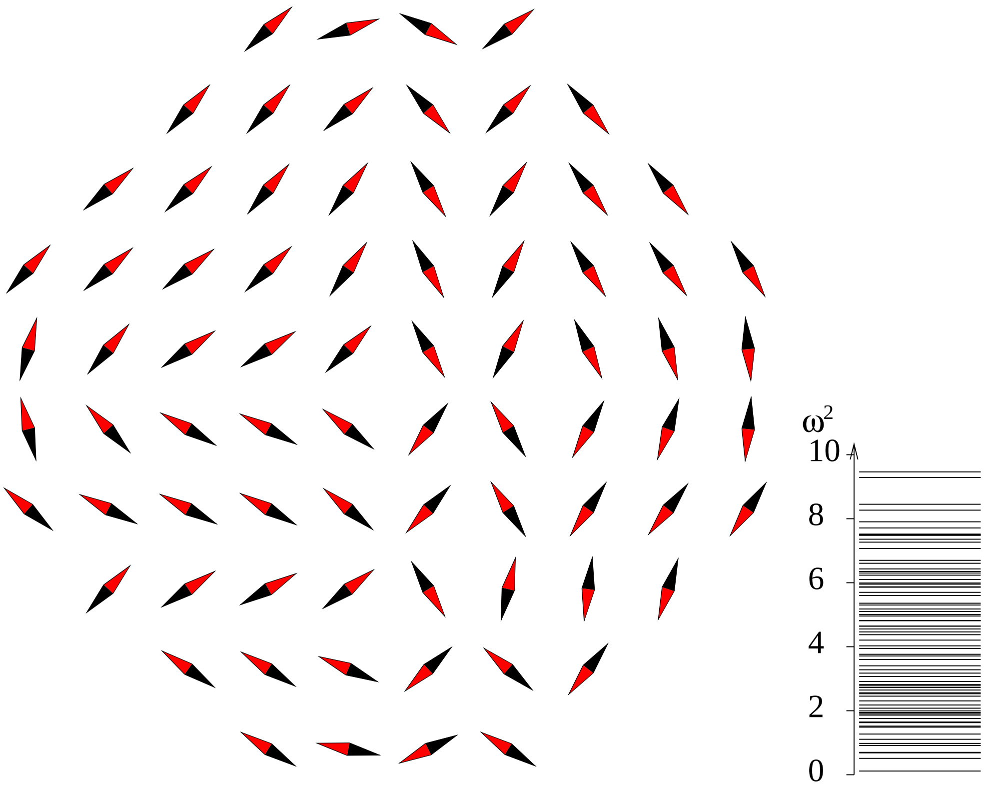
$E_{12} = -170.30154$ (96 mal) $\omega_1^2 = 0.03717$



$E_{232} = -162.44938$ (1 mal) $\omega_1^2 = 0.10170$

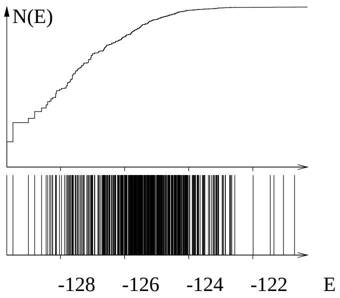


$E_{233} = -162.44355$ (1 mal) $\omega_1^2 = 0.20272$

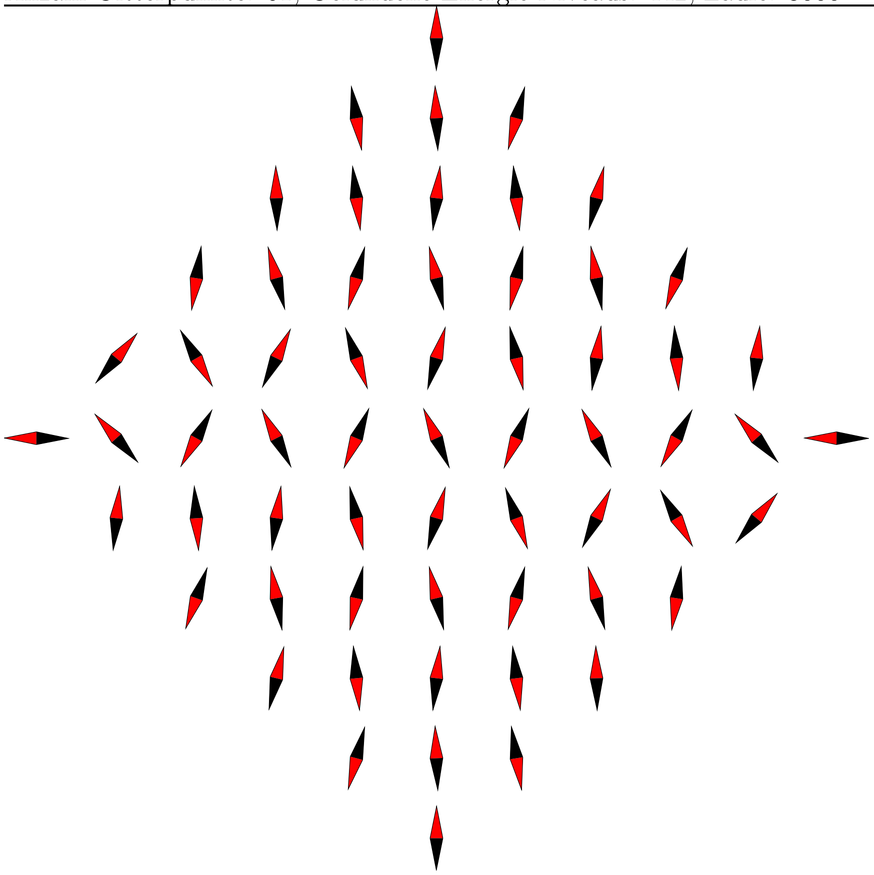


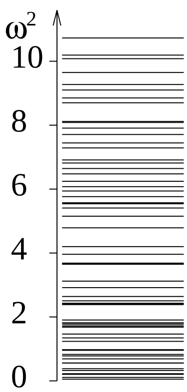
$E_{234} = -162.21542$ (1 mal) $\omega_1^2 = 0.11409$

Quadratisches Gitter (10,10,5)

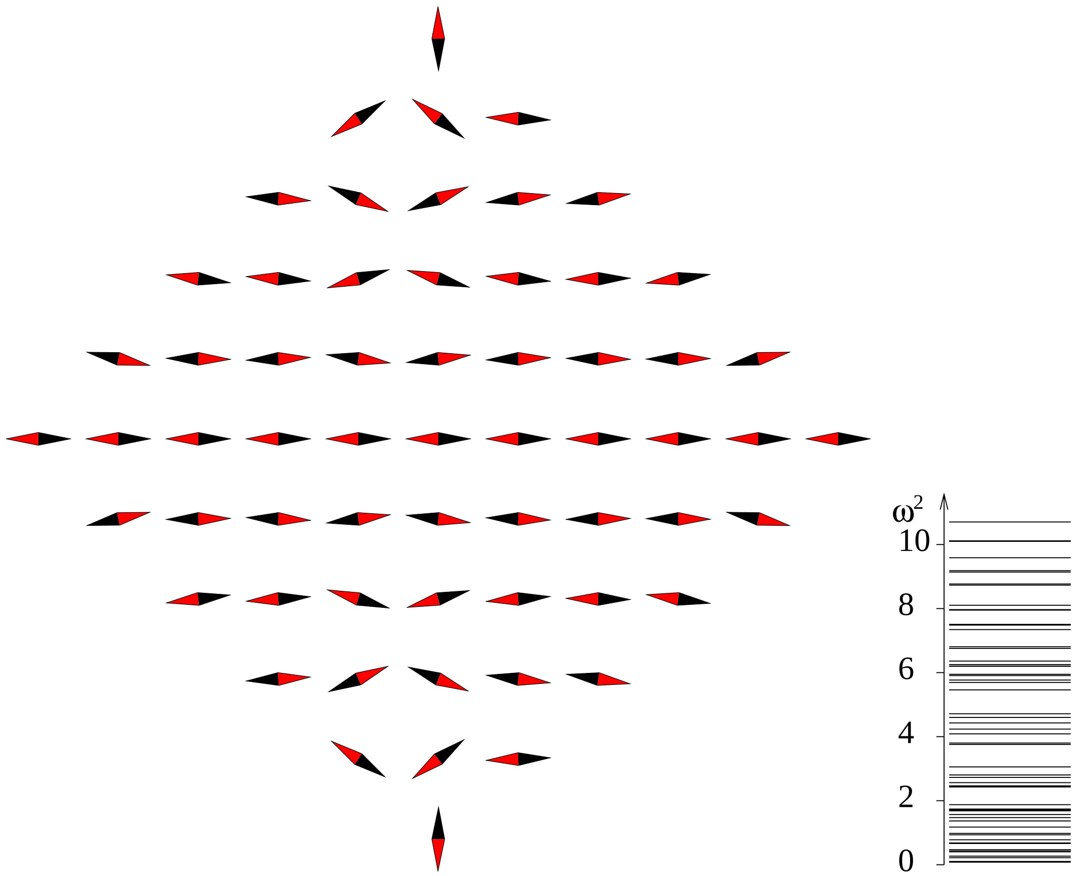


Anzahl Gitterpunkte: 61, Gefundene Energie-Niveaus: 442, Läufe: 3000

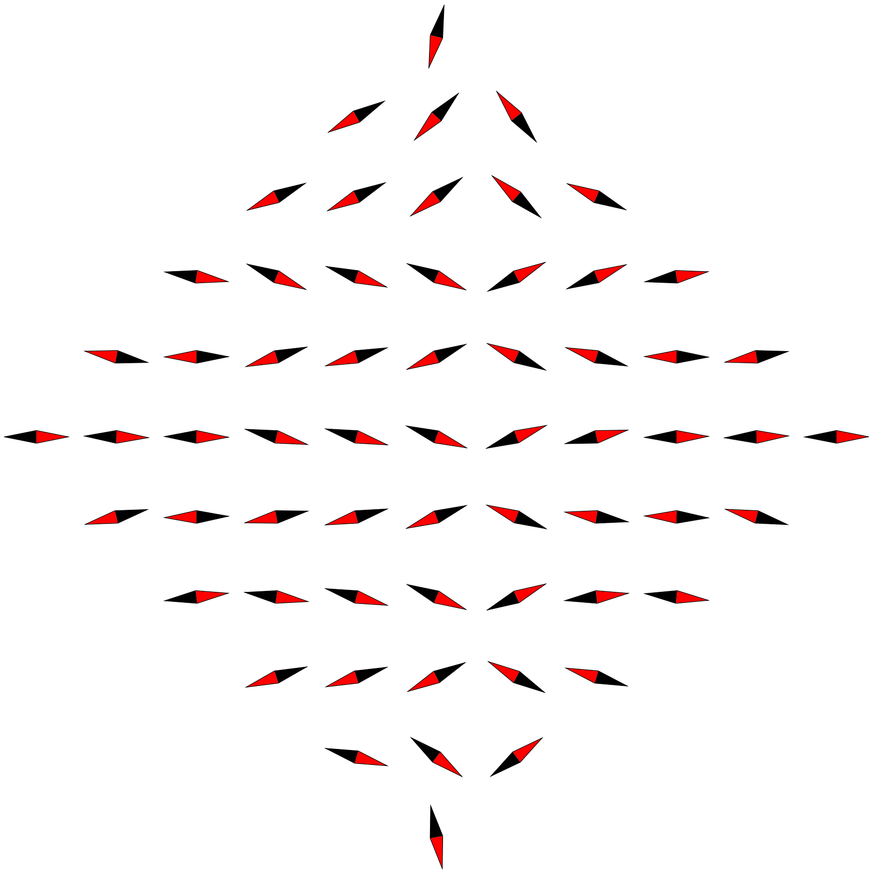


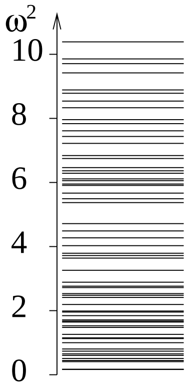


$E_1 = -129.67402$ (474 mal) $\omega_1^2 = 0.05093$

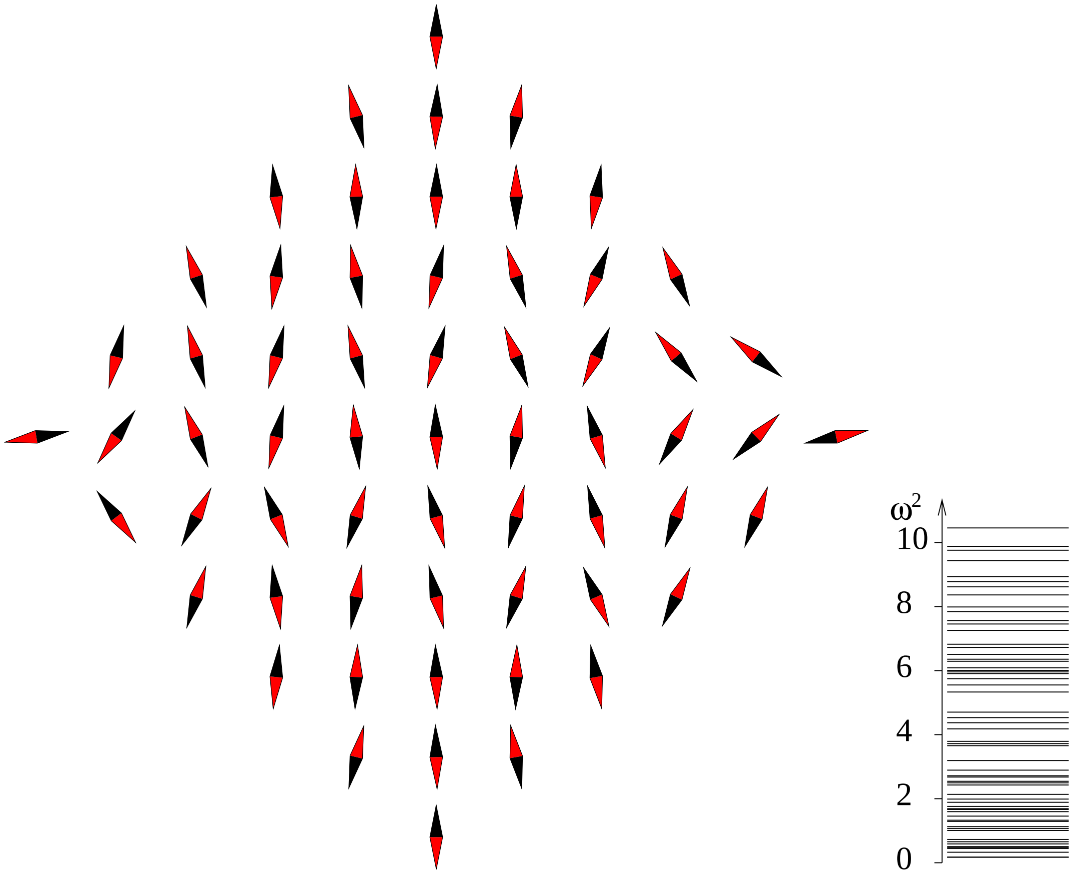


$E_2 = -129.48187$ (358 mal) $\omega_1^2 = 0.07959$

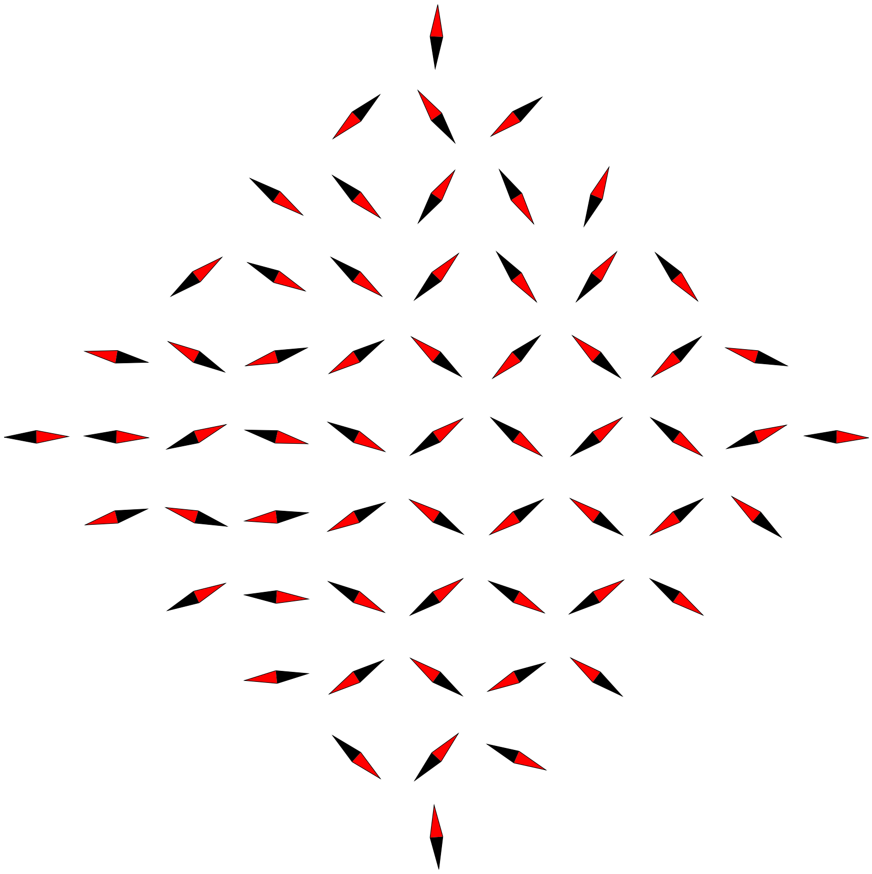


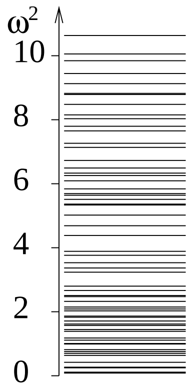


$E_3 = -129.00160$ (81 mal) $\omega_1^2 = 0.16227$

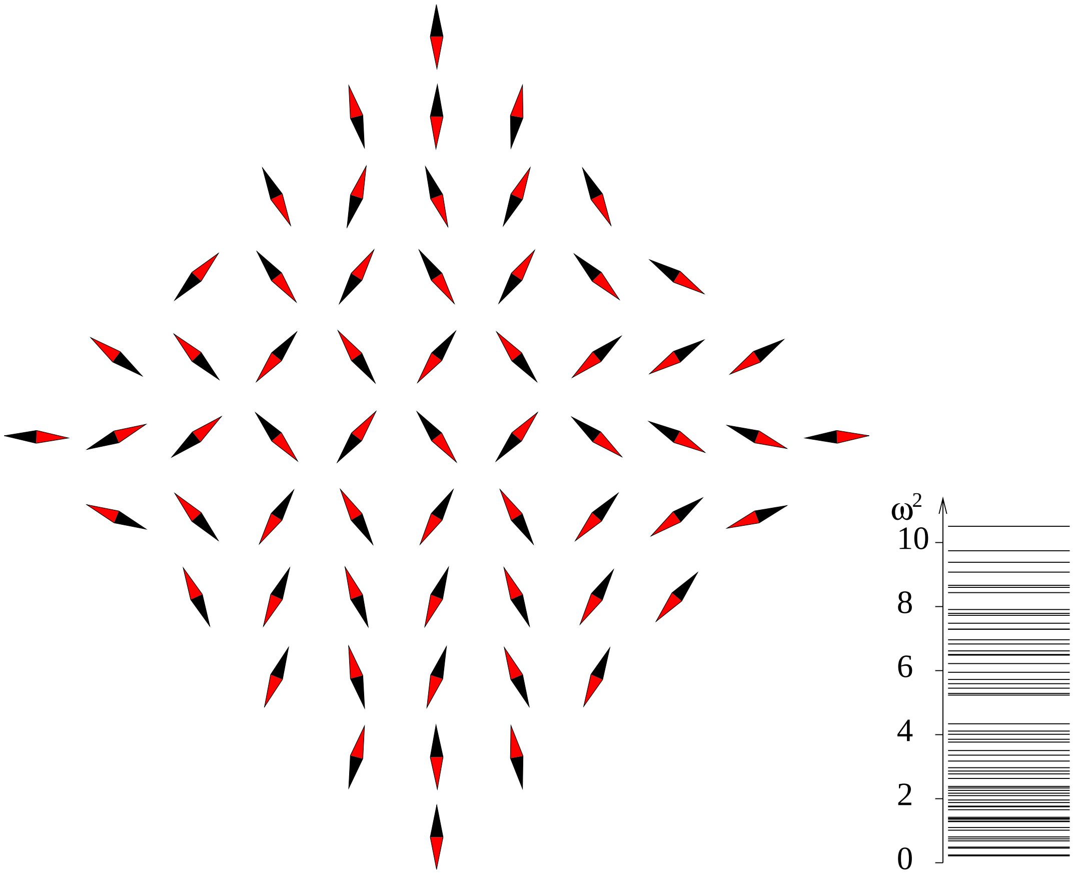


$E_4 = -128.80436$ (128 mal) $\omega_1^2 = 0.17102$

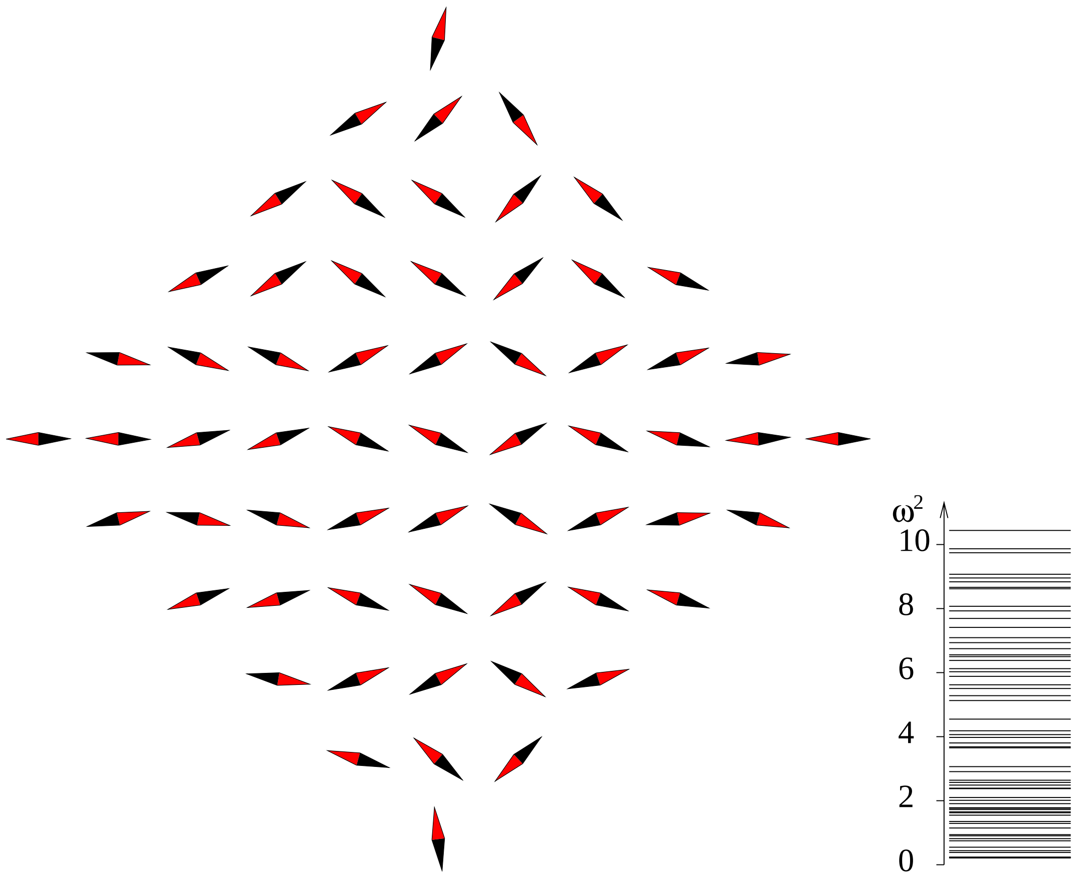




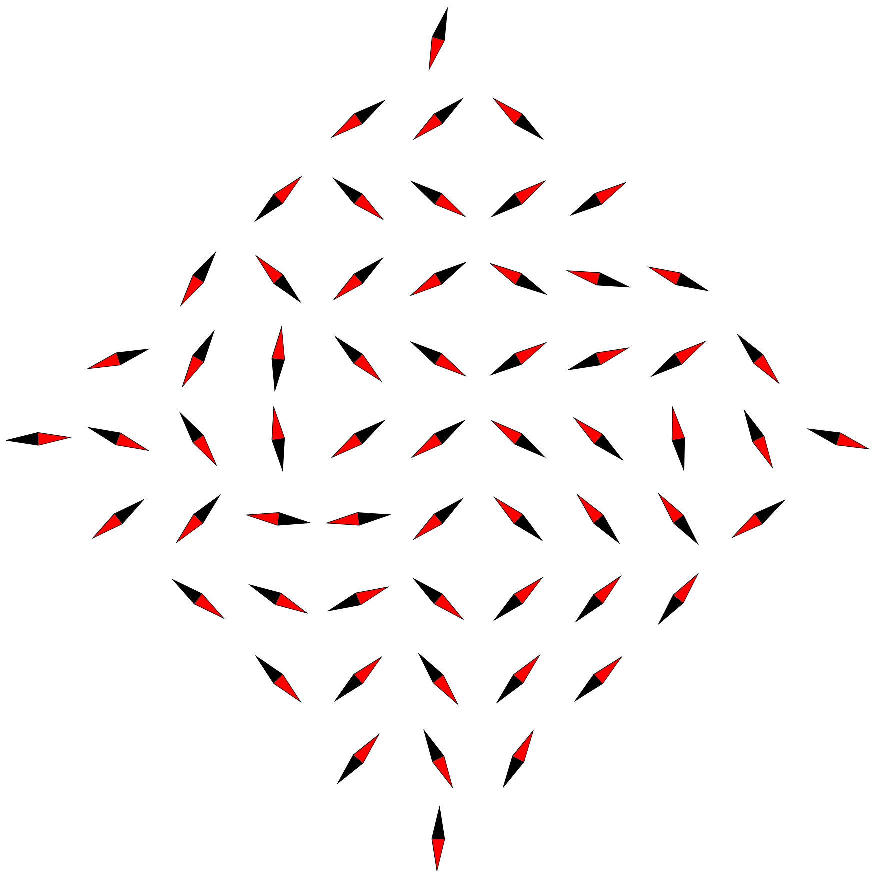
$E_5 = -128.58836$ (67 mal) $\omega_1^2 = 0.08334$

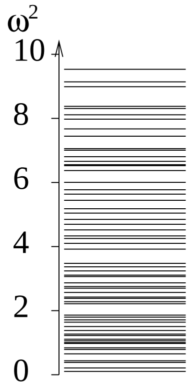


$E_6 = -128.44547$ (57 mal) $\omega_1^2 = 0.21598$

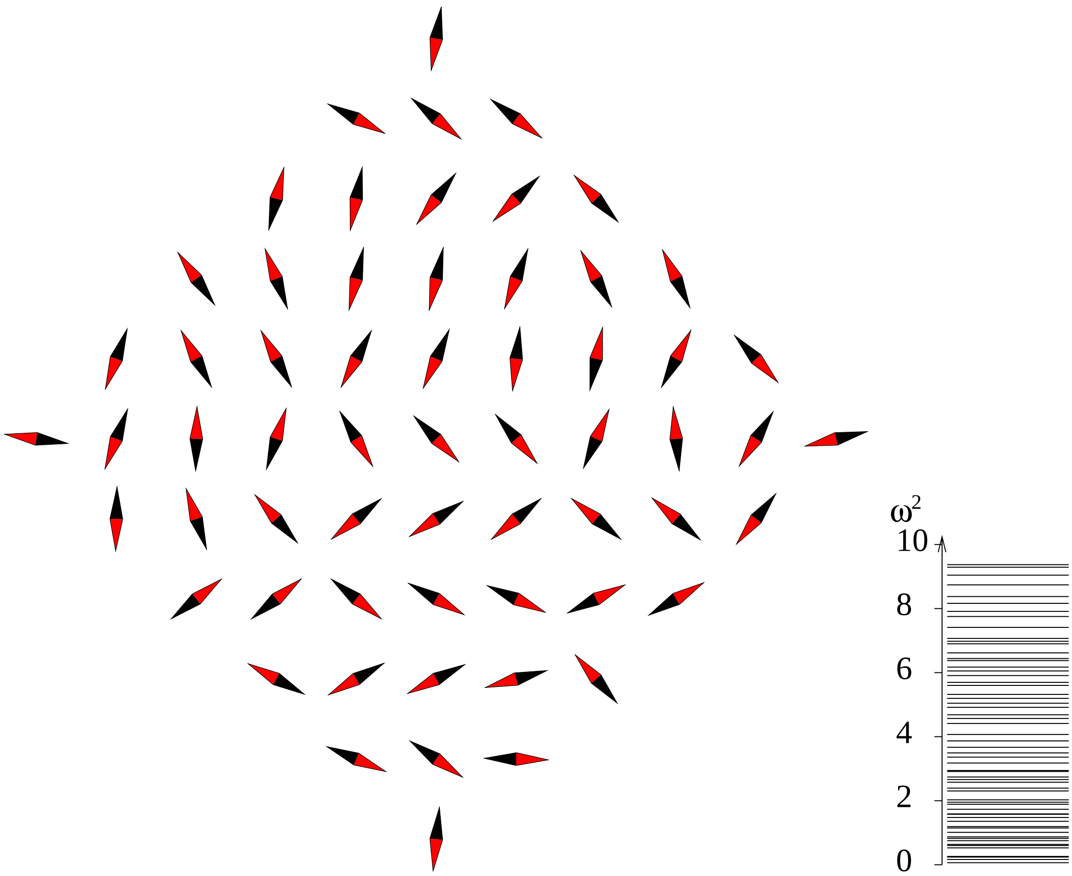


$E_7 = -128.39812$ (60 mal) $\omega_1^2 = 0.21167$

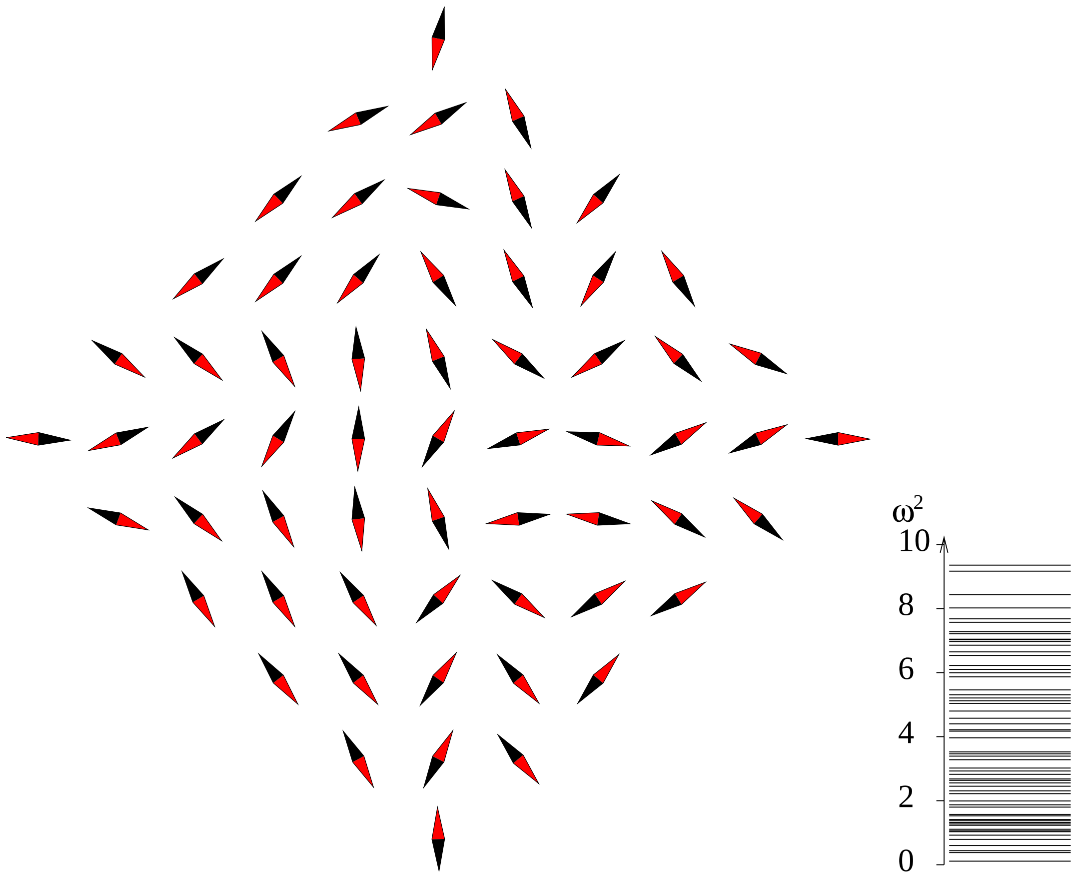




$E_{440} = -121.33977$ (1 mal) $\omega_1^2 = 0.10520$

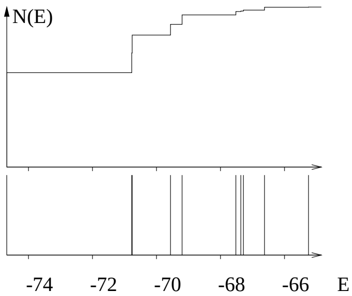


$E_{441} = -121.04042$ (1 mal) $\omega_1^2 = 0.06532$

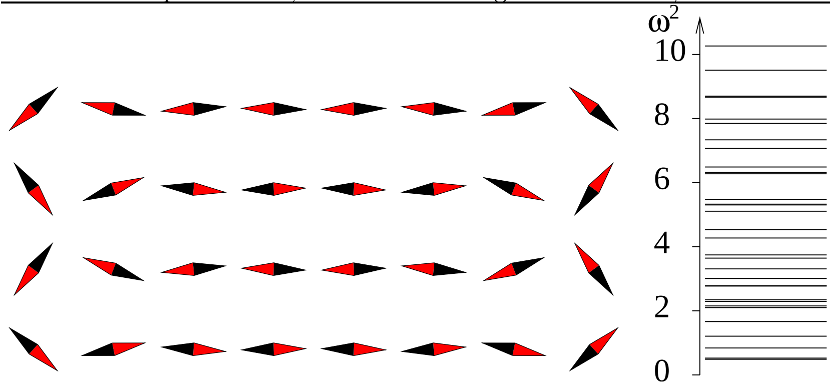


$E_{442} = -120.69600$ (1 mal) $\omega_1^2 = 0.11245$

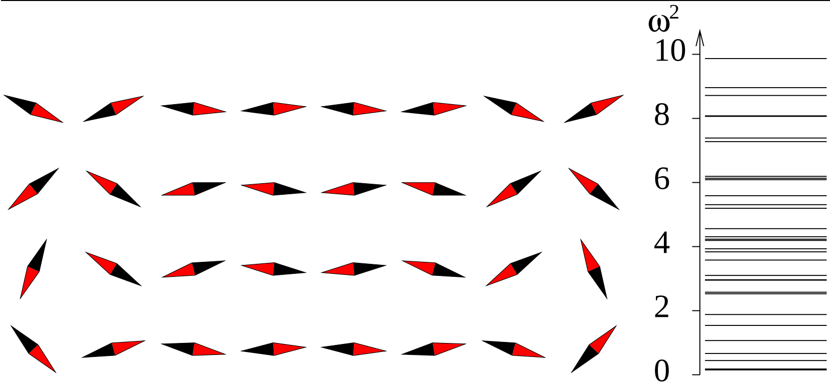
Quadratisches Gitter (7,3,0)



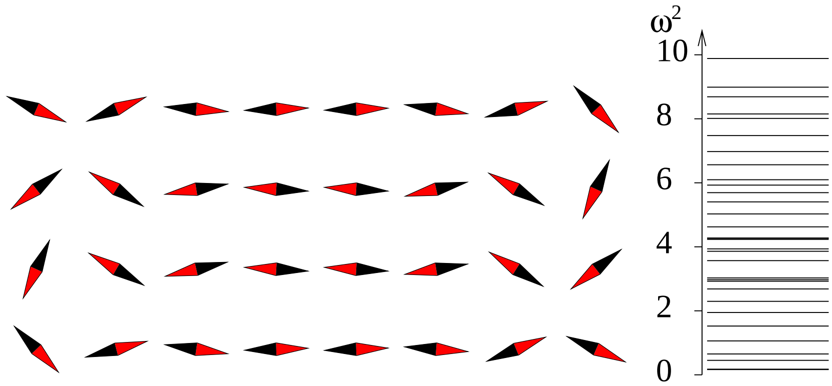
Anzahl Gitterpunkte: 32, Gefundene Energie-Niveaus: 10, Läufe: 1000



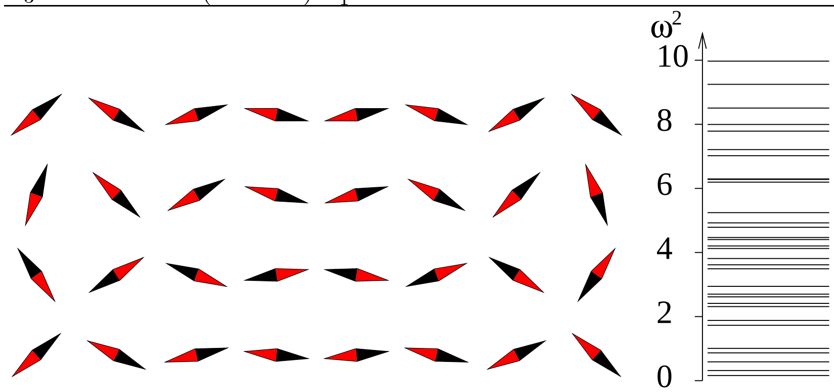
$E_1 = -74.67661$ (590 mal) $\omega_1^2 = 0.48983$



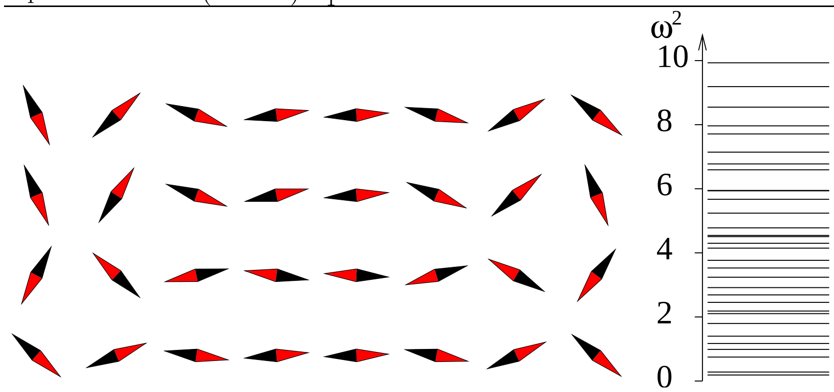
$E_2 = -70.77157$ (123 mal) $\omega_1^2 = 0.15248$



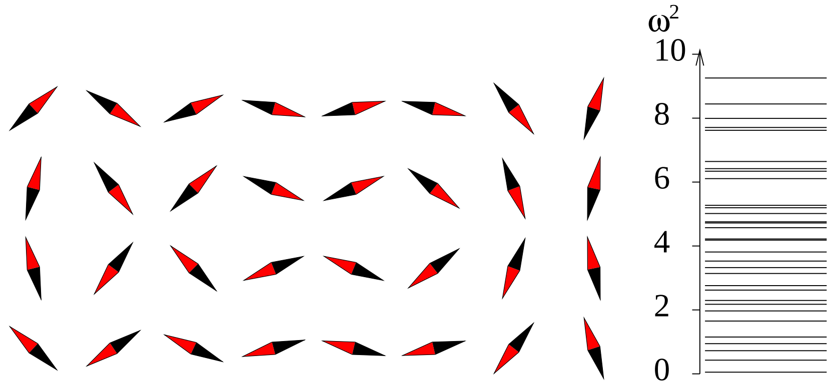
$E_3 = -70.75931$ (112 mal) $\omega_1^2 = 0.16426$



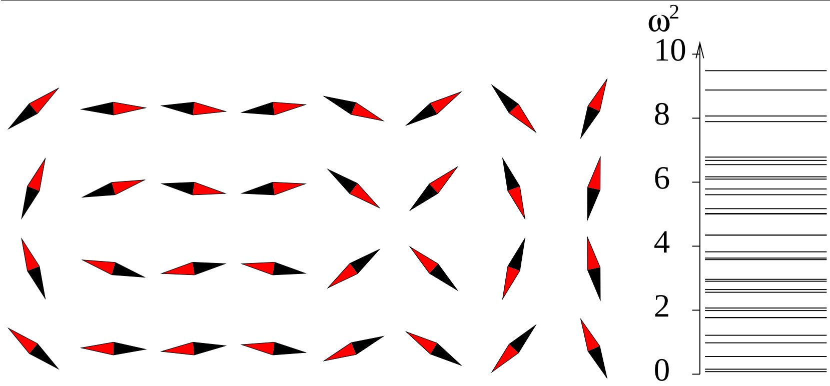
$E_4 = -69.56081$ (67 mal) $\omega_1^2 = 0.16151$



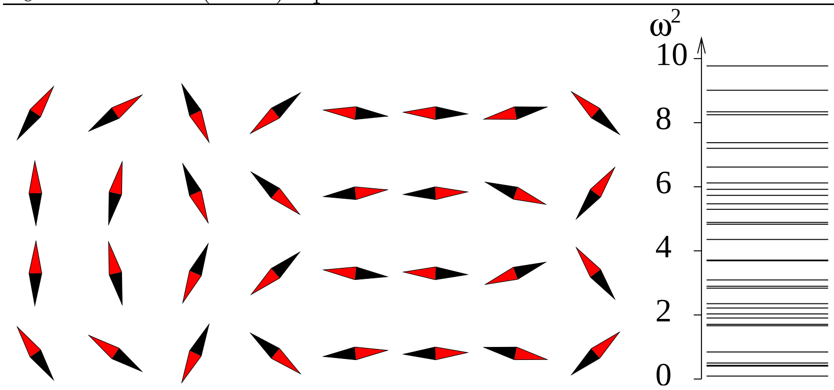
$E_5 = -69.19890$ (59 mal) $\omega_1^2 = 0.18678$



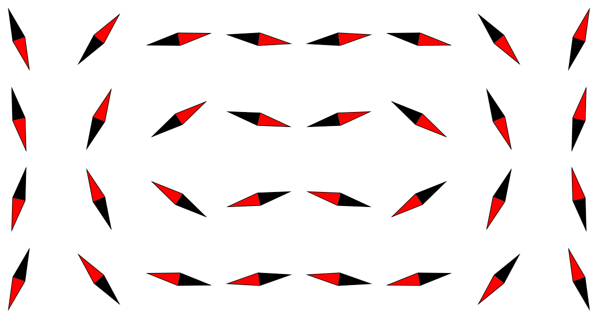
$E_6 = -67.51843$ (21 mal) $\omega_1^2 = 0.05298$

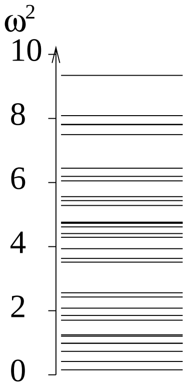


$E_8 = -67.28345$ (6 mal) $\omega_1^2 = 0.07934$



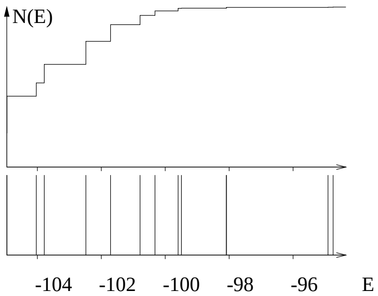
$E_9 = -66.62468$ (18 mal) $\omega_1^2 = 0.09155$



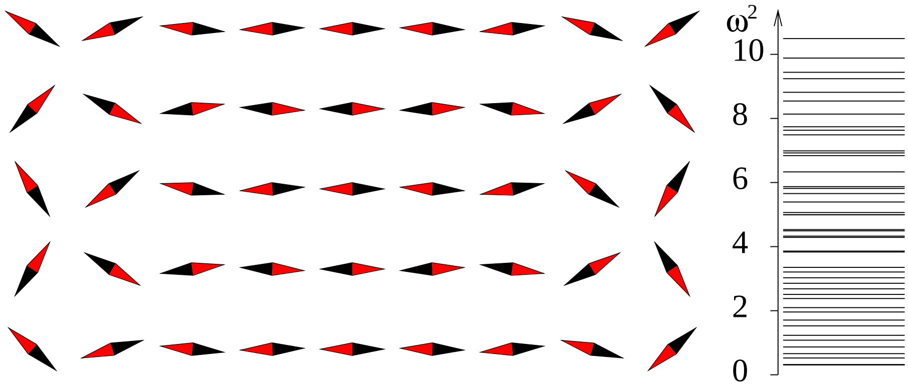


$E_{10} = -65.24788$ (1 mal) $\omega_1^2 = 0.15753$

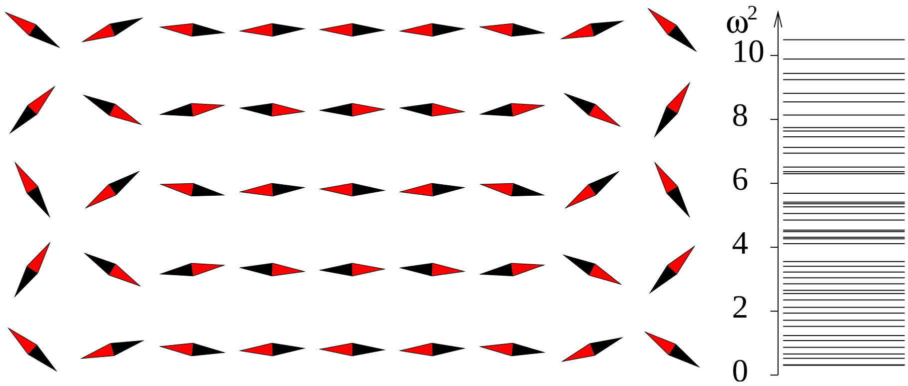
Quadratisches Gitter (8,4,0)



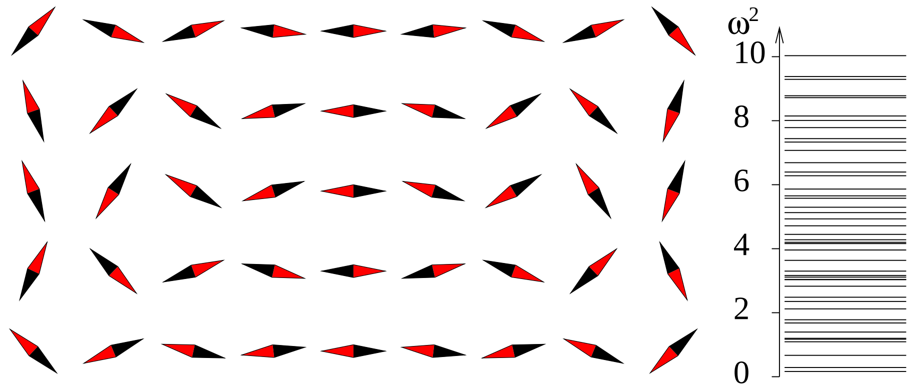
Anzahl Gitterpunkte: 45, Gefundene Energie-Niveaus: 14, Läufe: 1000



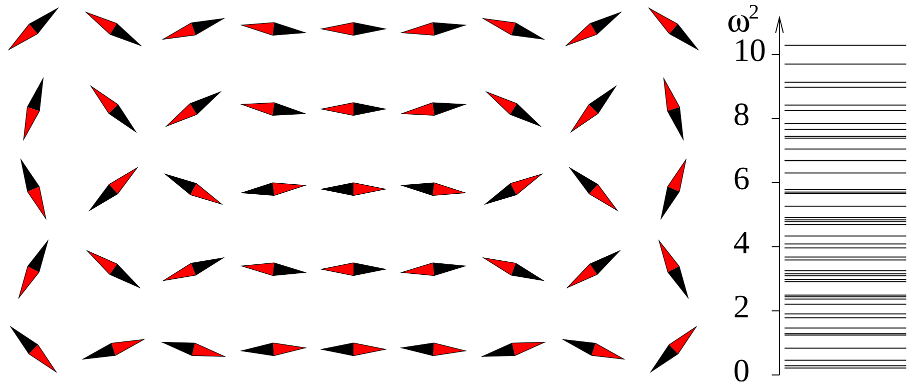
$E_1 = -104.95646$ (214 mal) $\omega_1^2 = 0.30680$



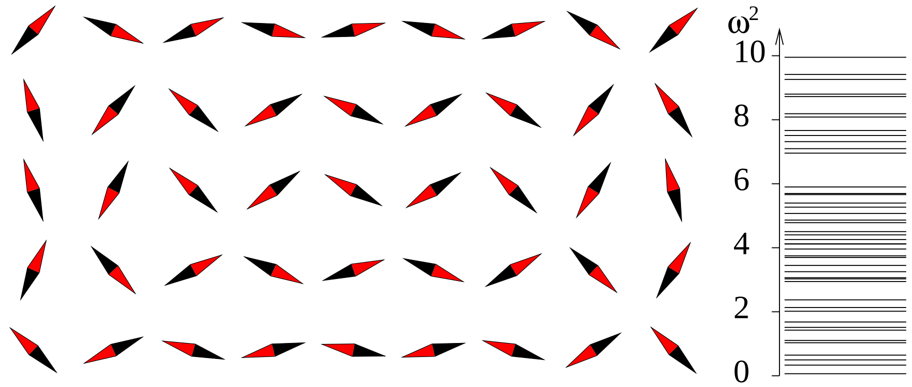
$E_2 = -104.95159$ (229 mal) $\omega_1^2 = 0.30648$



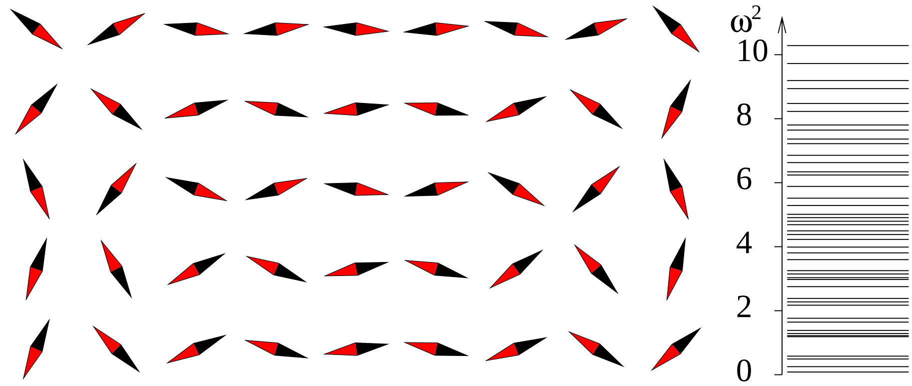
$E_3 = -104.03484$ (83 mal) $\omega_1^2 = 0.16421$



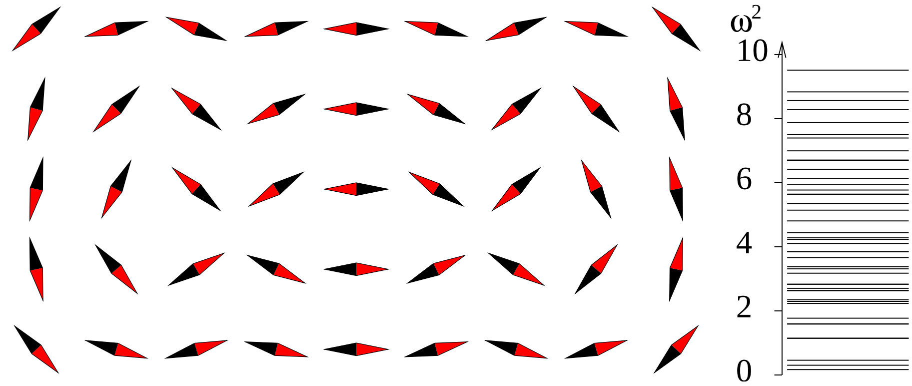
$E_4 = -103.78351$ (116 mal) $\omega_1^2 = 0.21540$



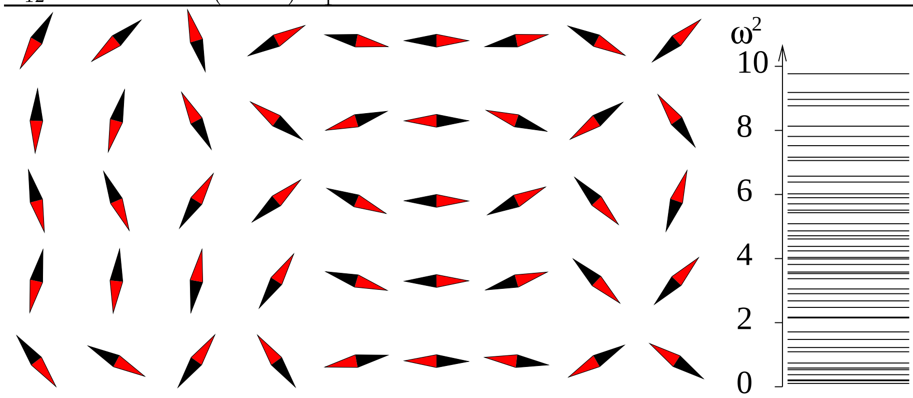
$E_5 = -102.48039$ (144 mal) $\omega_1^2 = 0.06388$



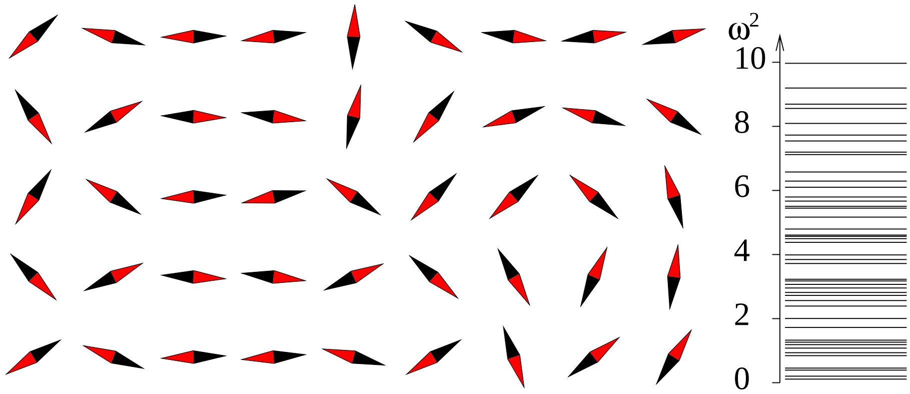
$E_6 = -101.70846$ (104 mal) $\omega_1^2 = 0.08546$



$E_{12} = -98.08101$ (3 mal) $\omega_1^2 = 0.16698$

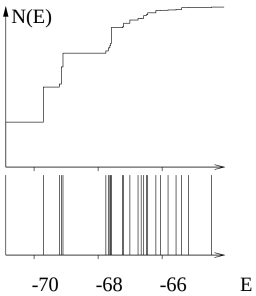


$E_{13} = -94.90530$ (1 mal) $\omega_1^2 = 0.10510$

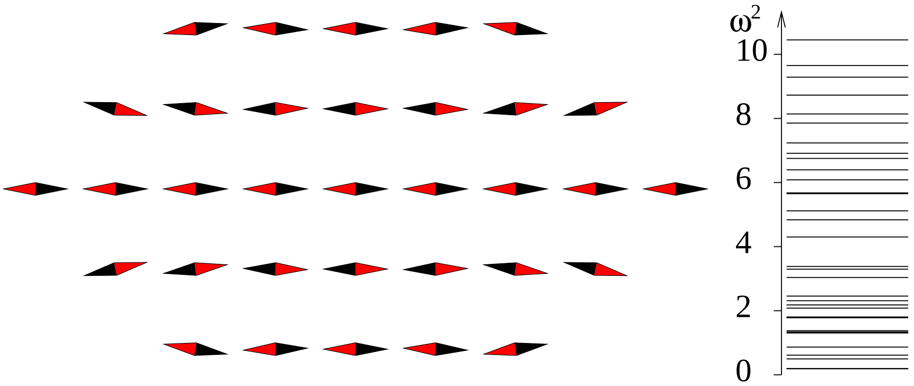


$E_{14} = -94.74709$ (1 mal) $\omega_1^2 = 0.11291$

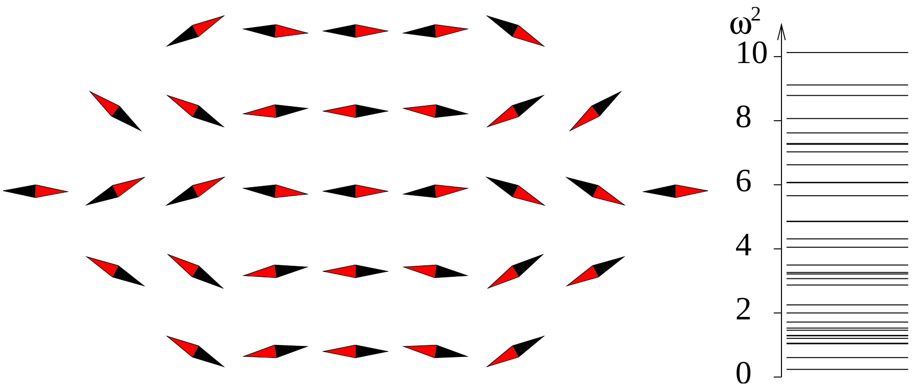
Quadratisches Gitter (8,4,2)



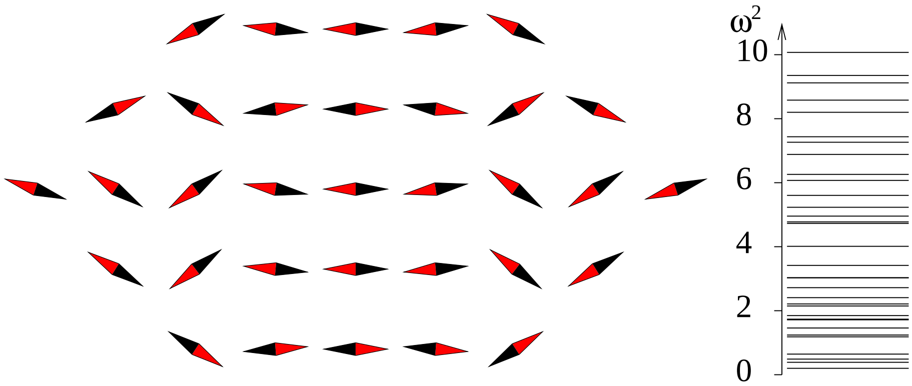
Anzahl Gitterpunkte: 33, Gefundene Energie-Niveaus: 25, Läufe: 1000



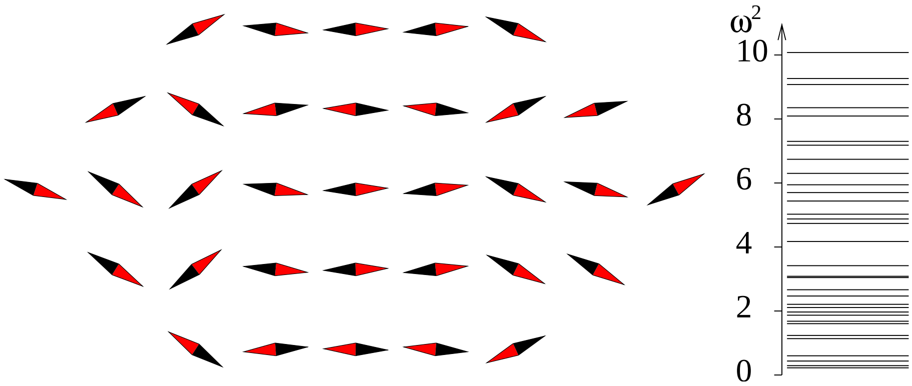
$E_1 = -70.88531$ (281 mal) $\omega_1^2 = 0.18644$



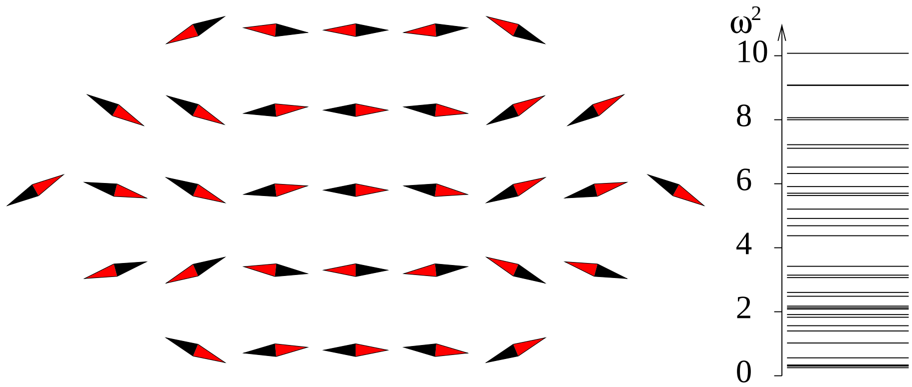
$E_2 = -69.71209$ (219 mal) $\omega_1^2 = 0.24048$



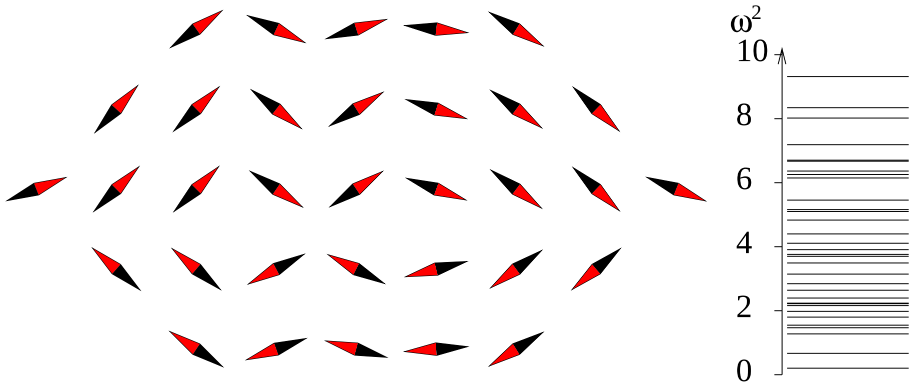
$E_3 = -69.21178$ (19 mal) $\omega_1^2 = 0.20007$



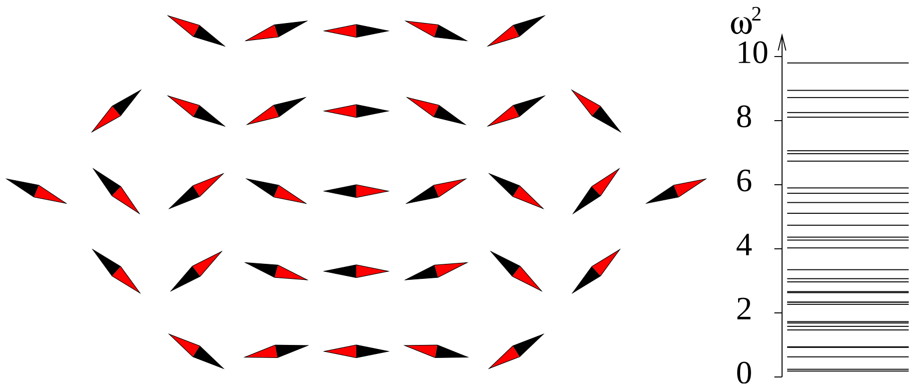
$E_4 = -69.15141$ (107 mal) $\omega_1^2 = 0.22421$



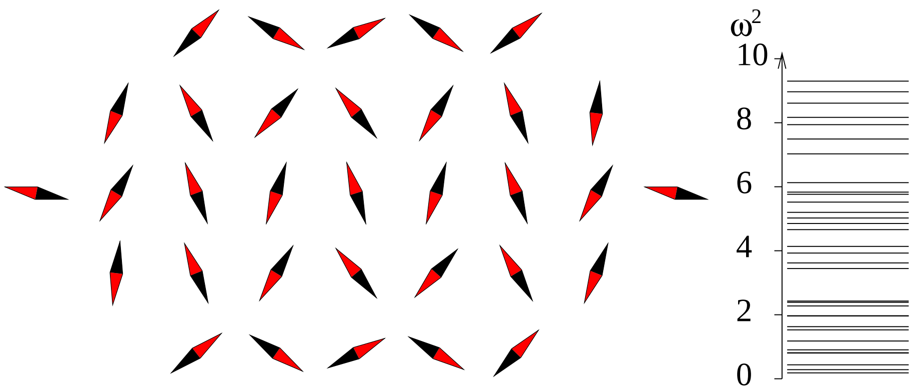
$E_5 = -69.09709$ (86 mal) $\omega_1^2 = 0.25400$



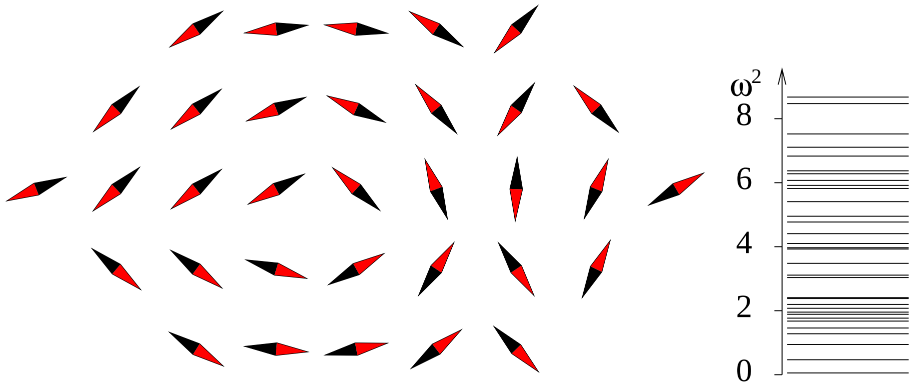
$E_6 = -67.75672$ (14 mal) $\omega_1^2 = 0.20420$



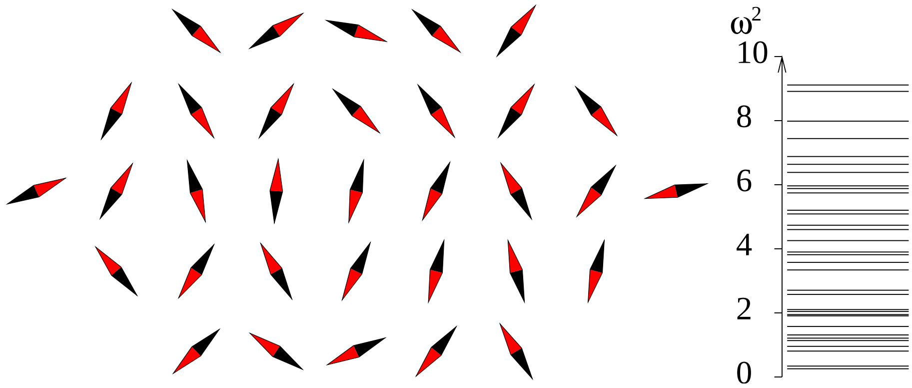
$E_{10} = -67.58574$ (99 mal) $\omega_1^2 = 0.18505$



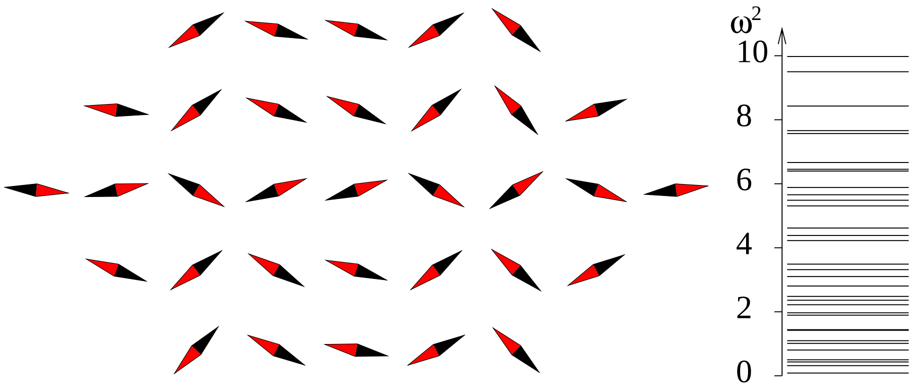
$E_{12} = -67.20166$ (23 mal) $\omega_1^2 = 0.18365$



$E_{23} = -65.39285$ (11 mal) $\omega_1^2 = 0.05467$

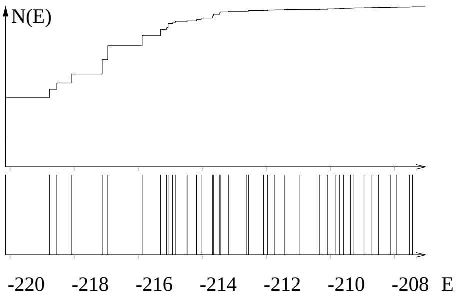


$E_{24} = -65.16963$ (1 mal) $\omega_1^2 = 0.25703$

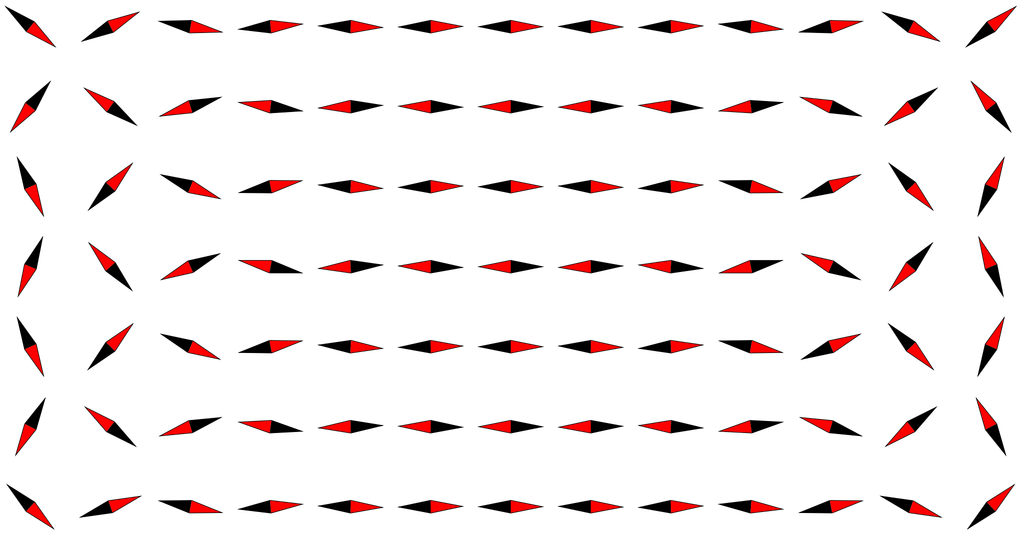


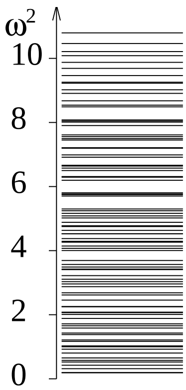
$E_{25} = -64.46214$ (3 mal) $\omega_1^2 = 0.08205$

Quadratisches Gitter (12,6,0)

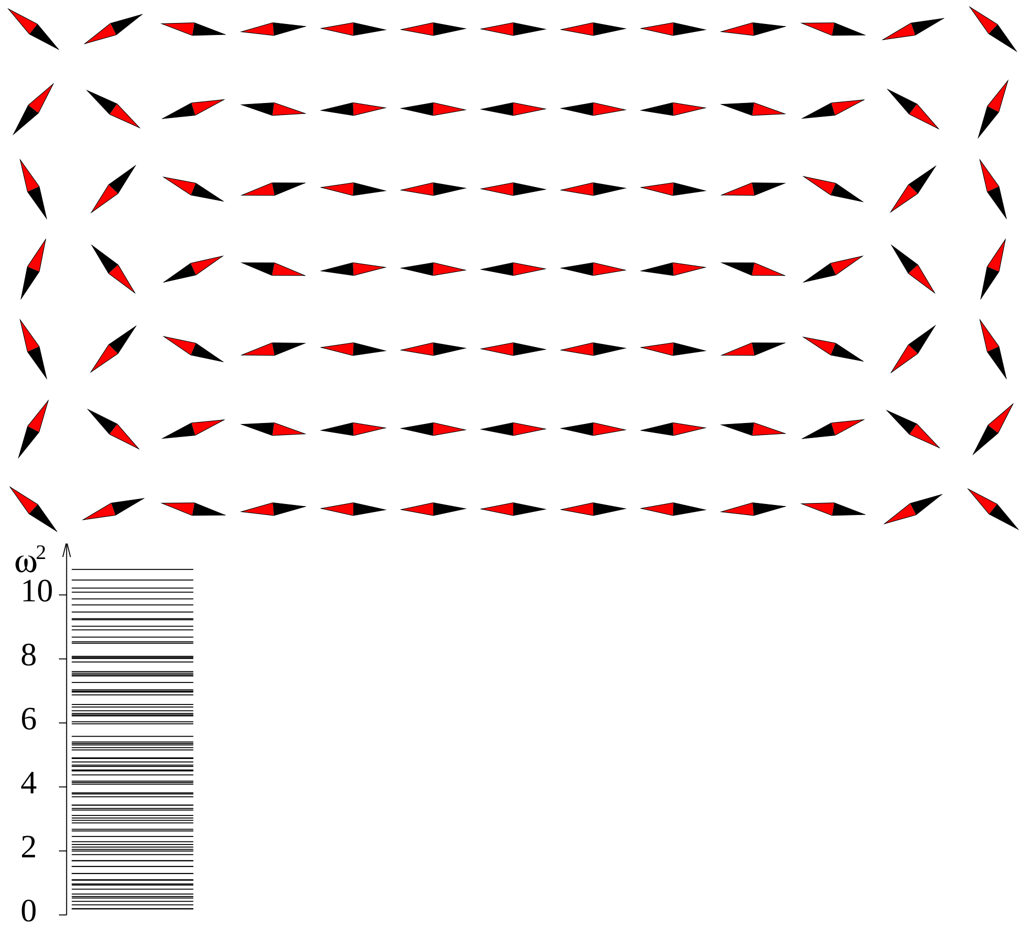


Anzahl Gitterpunkte: 91, Gefundene Energie-Niveaus: 46, Läufe: 1000

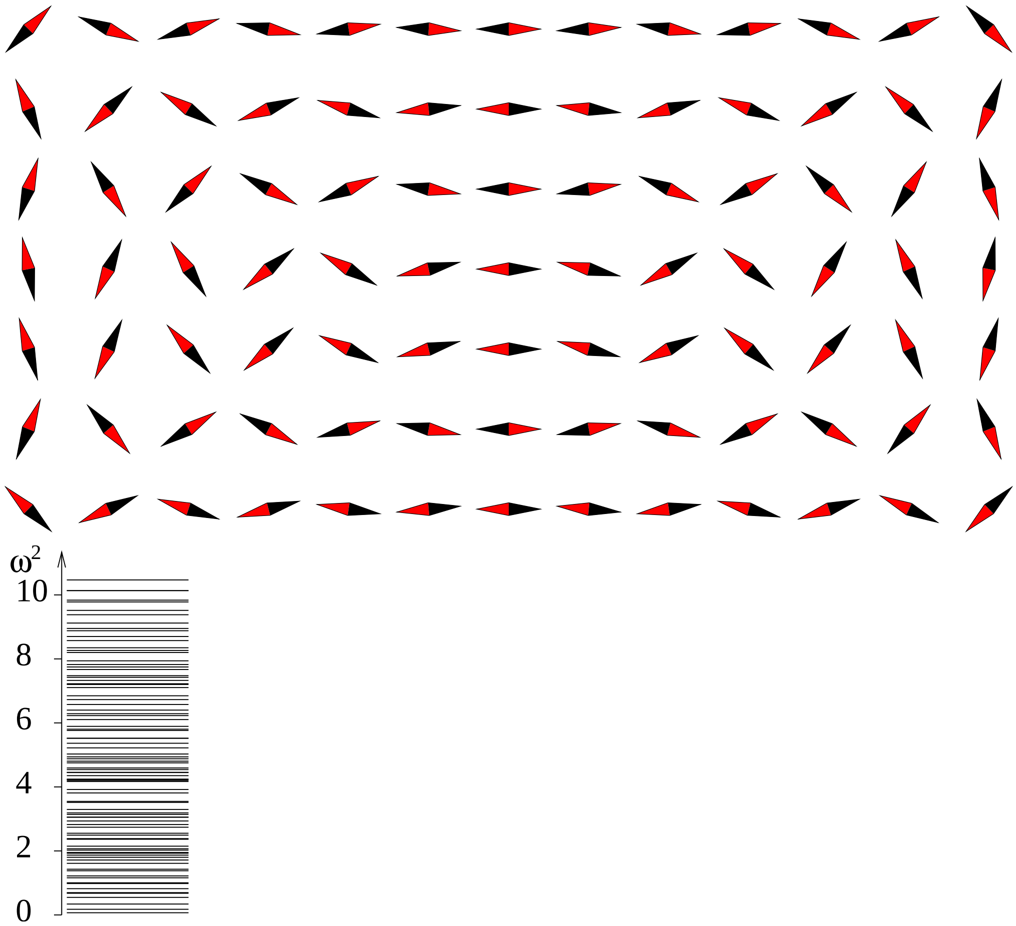




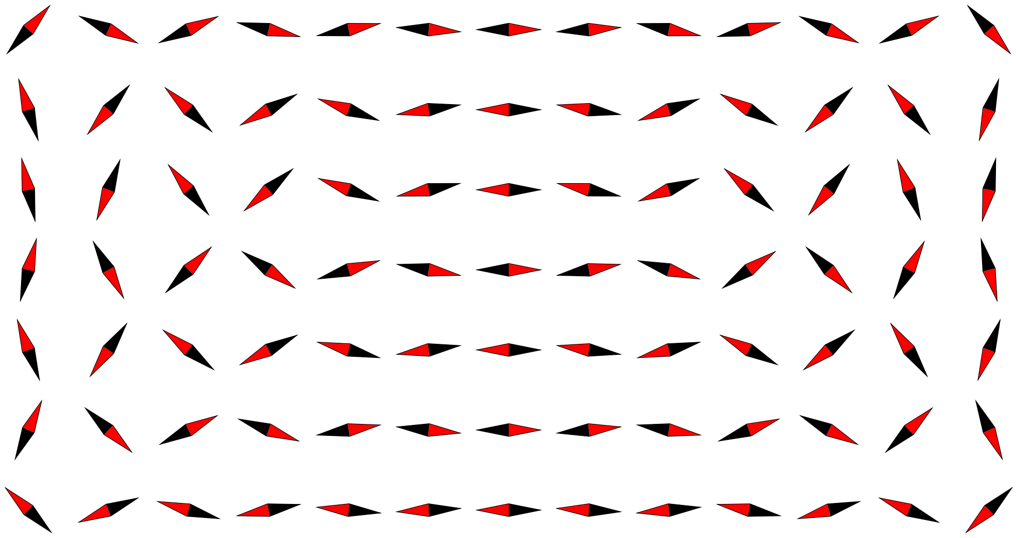
$E_1 = -220.13895$ (191 mal) $\omega_1^2 = 0.18999$

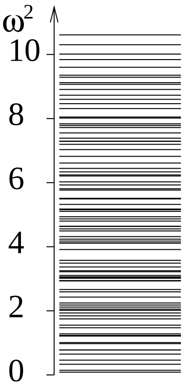


$E_2 = -220.13423$ (241 mal) $\omega_1^2 = 0.18945$

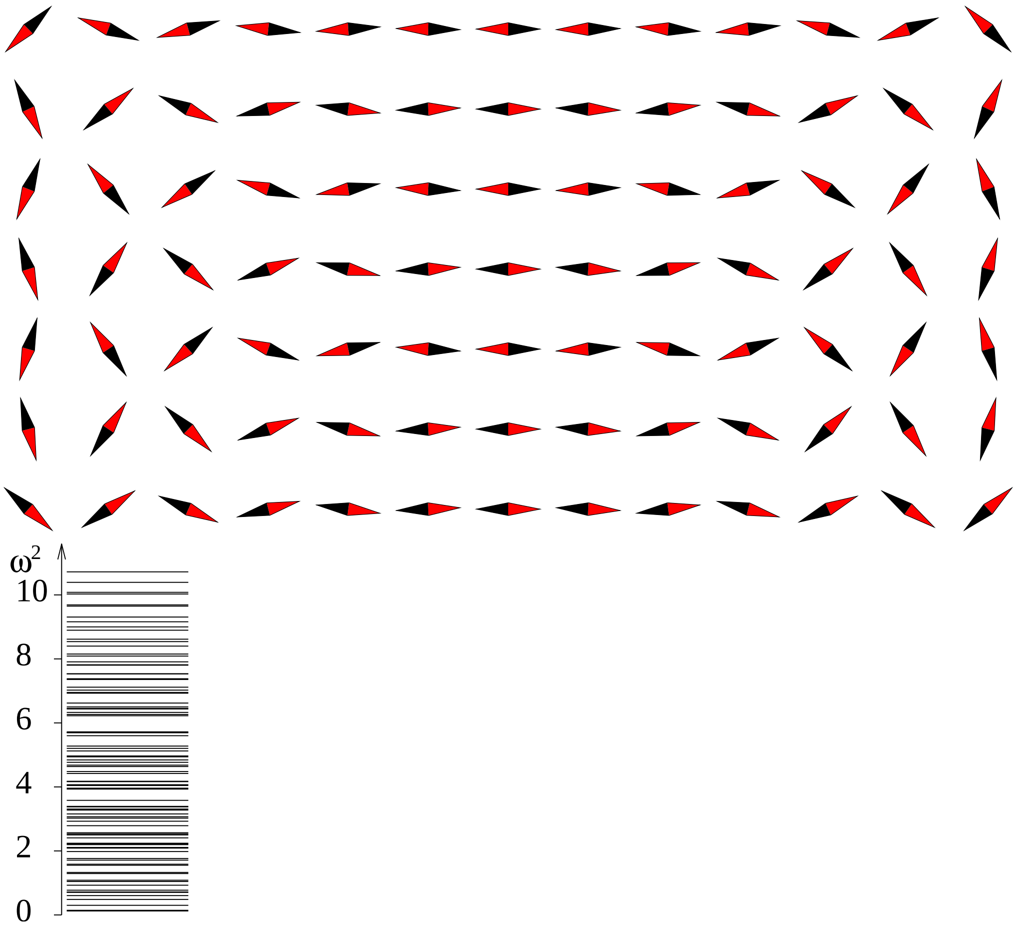


$E_3 = -218.76960$ (53 mal) $\omega_1^2 = 0.06861$

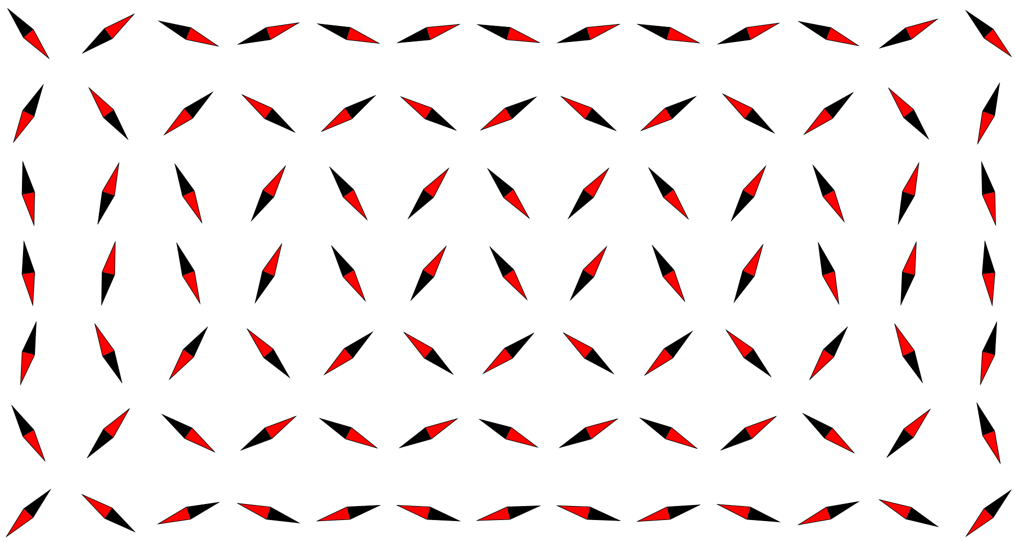


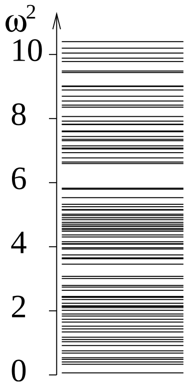


$E_4 = -218.53533$ (39 mal) $\omega_1^2 = 0.08561$

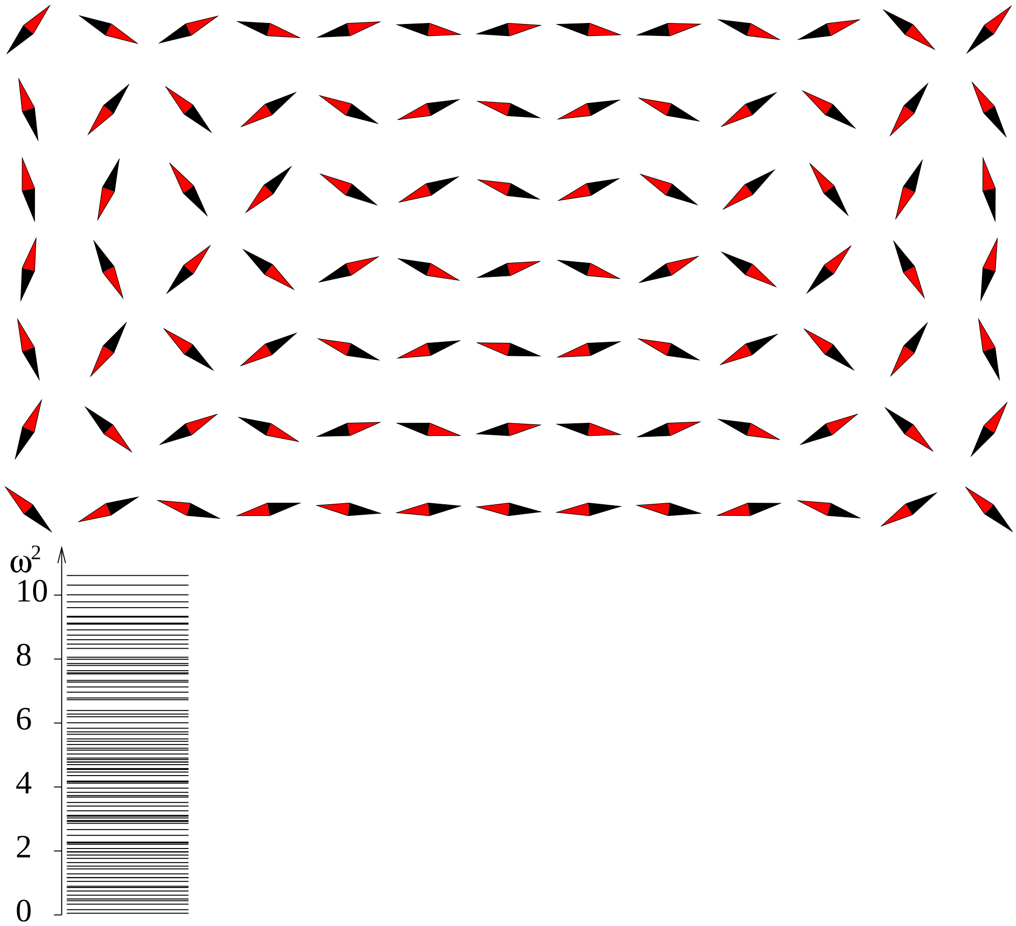


$E_5 = -218.06911$ (56 mal) $\omega_1^2 = 0.12282$

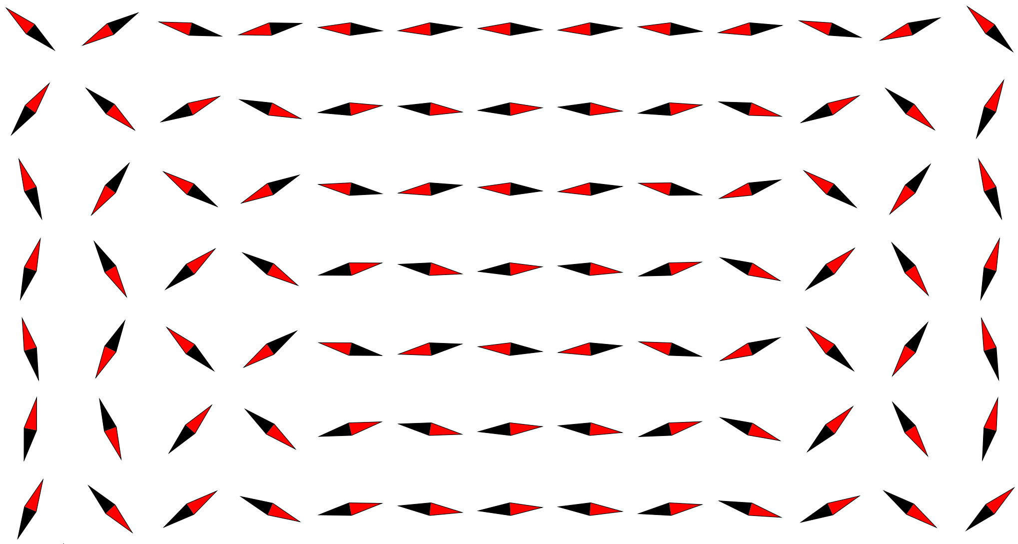


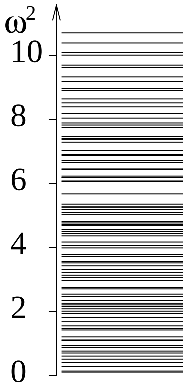


$E_6 = -217.11874$ (90 mal) $\omega_1^2 = 0.06588$

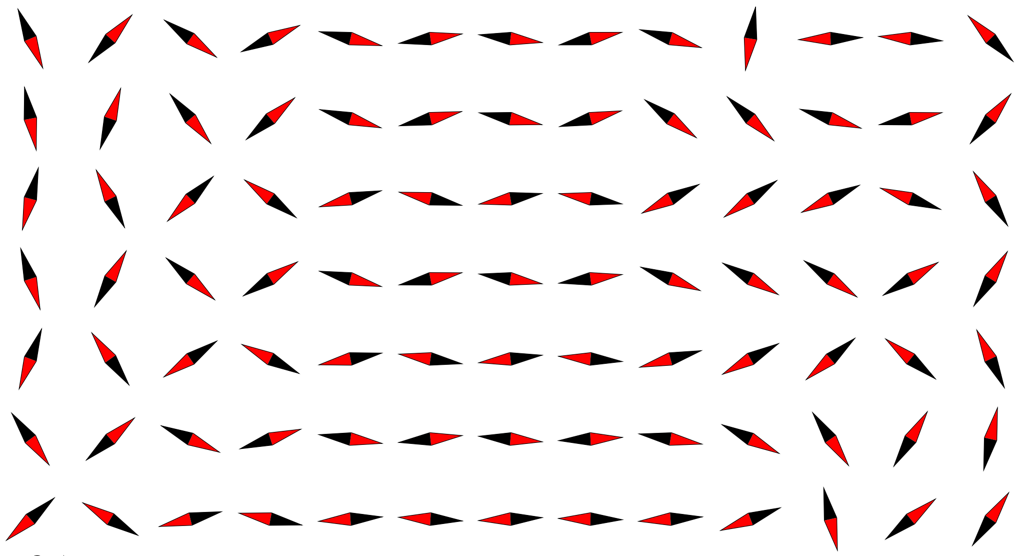


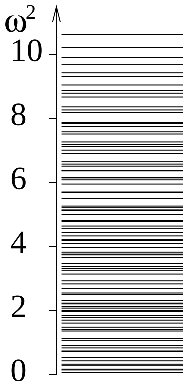
$E_7 = -216.94280$ (87 mal) $\omega_1^2 = 0.05187$



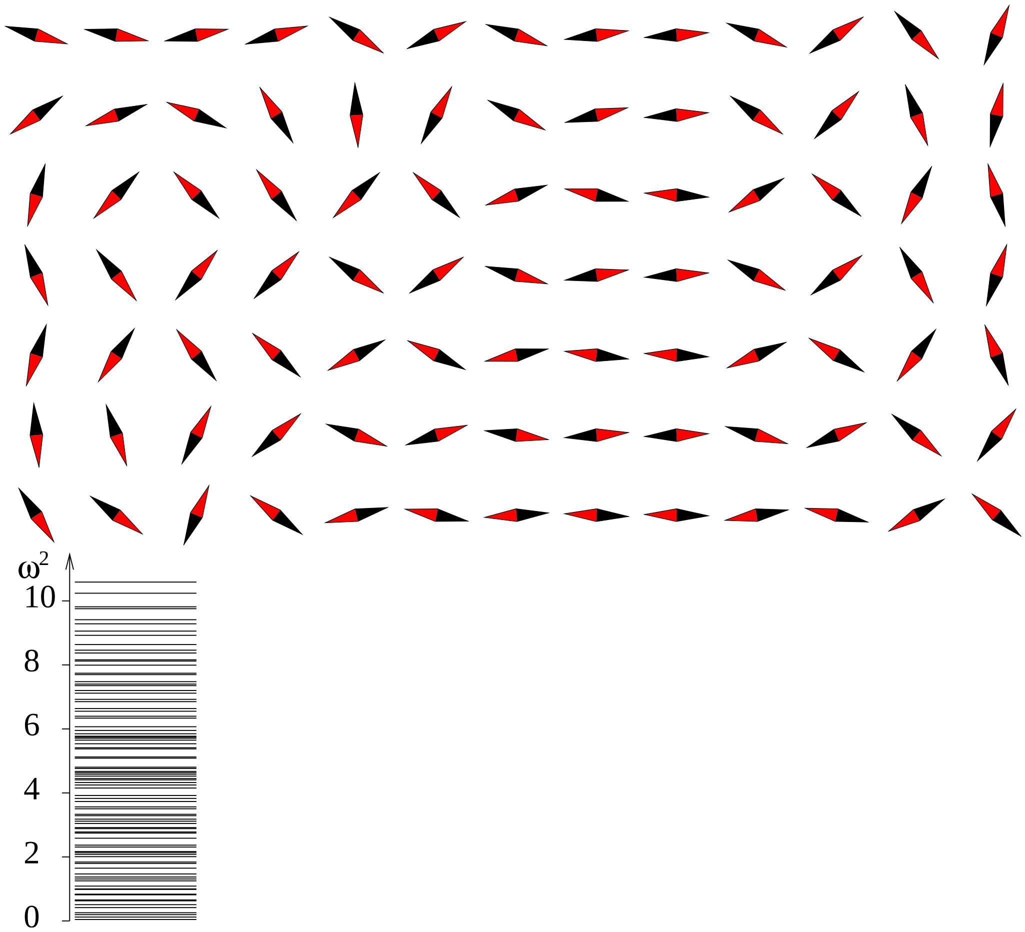


$E_8 = -215.87137$ (65 mal) $\omega_1^2 = 0.11097$

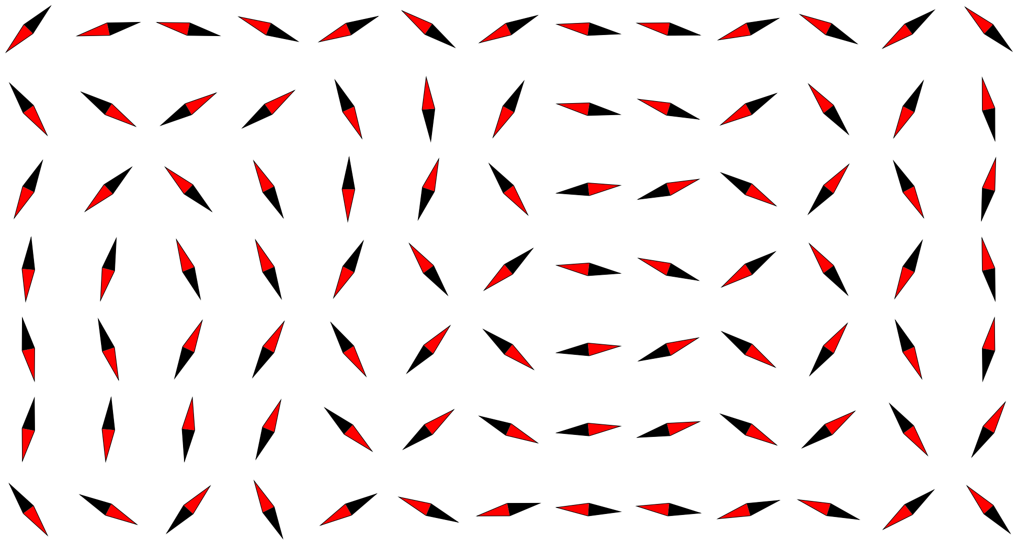


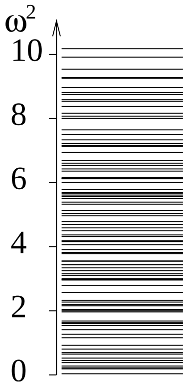


$E_{44} = -207.91386$ (1 mal) $\omega_1^2 = 0.06411$



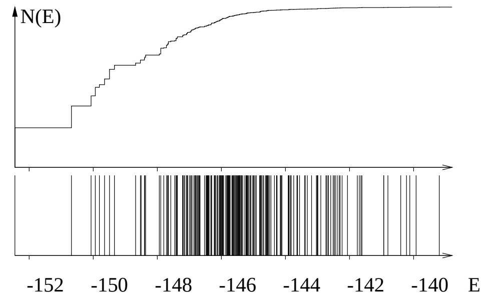
$E_{45} = -207.52134$ (1 mal) $\omega_1^2 = 0.04478$



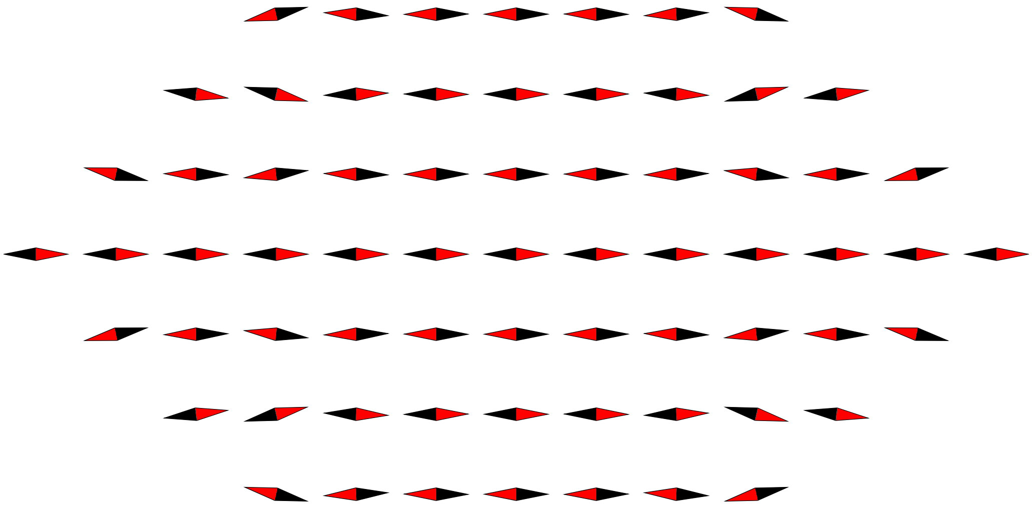


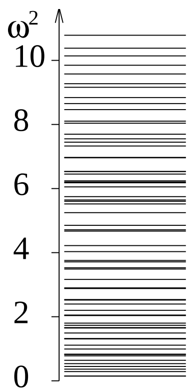
$E_{46} = -207.42150$ (1 mal) $\omega_1^2 = 0.03773$

Quadratisches Gitter (12,6,3)

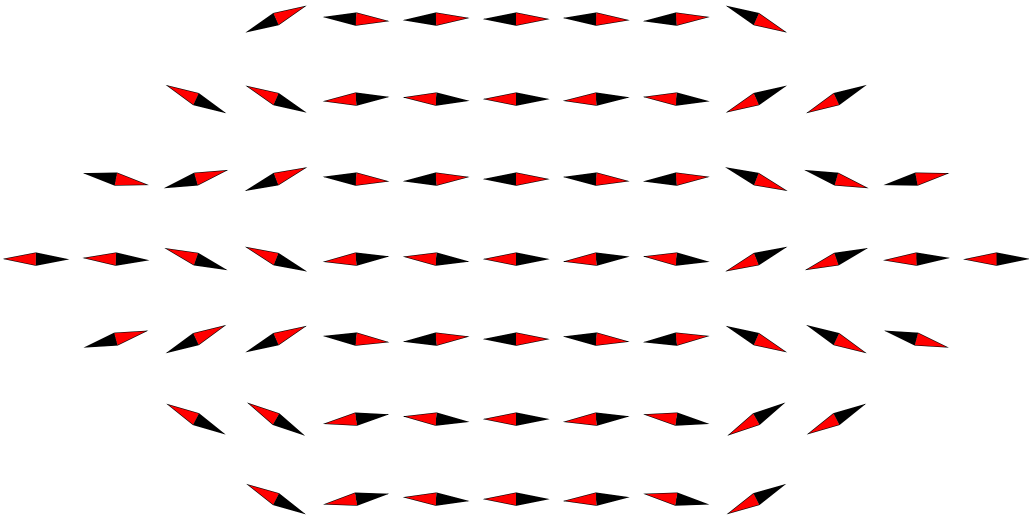


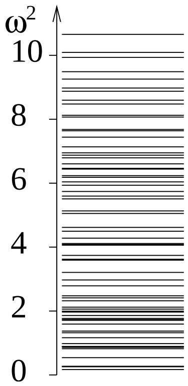
Anzahl Gitterpunkte: 67, Gefundene Energie-Niveaus: 215, Läufe: 3000



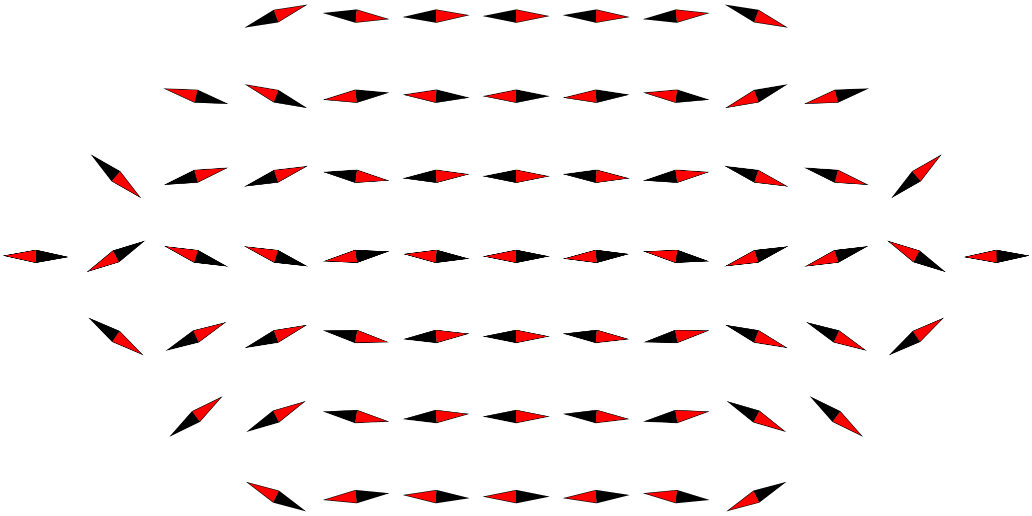


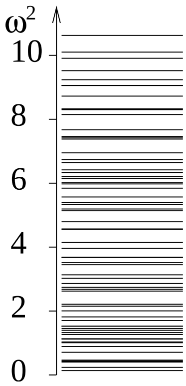
$E_1 = -152.44543$ (741 mal) $\omega_1^2 = 0.14712$



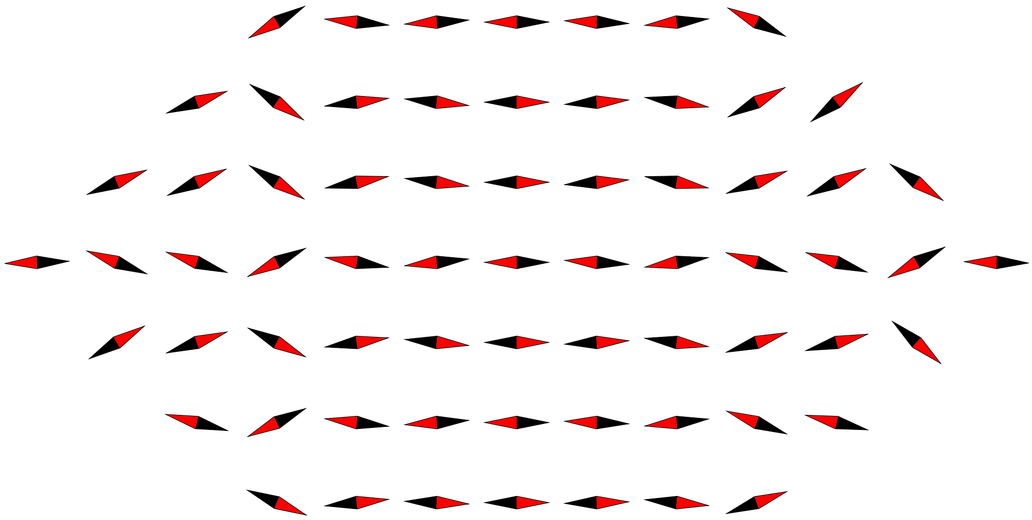


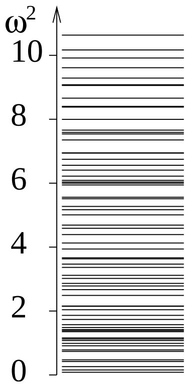
$E_2 = -150.68061$ (408 mal) $\omega_1^2 = 0.16901$



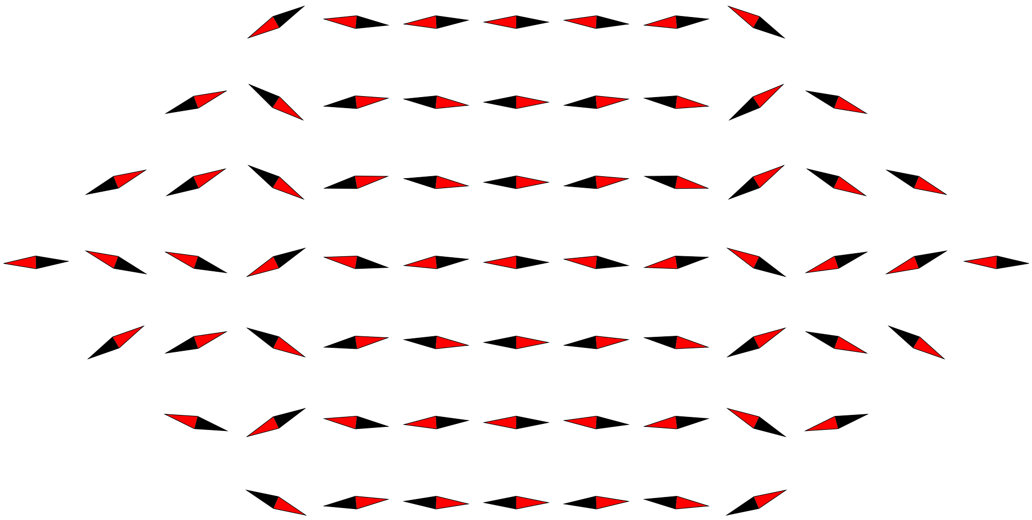


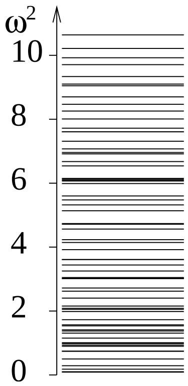
$E_3 = -150.06850$ (189 mal) $\omega_1^2 = 0.13798$



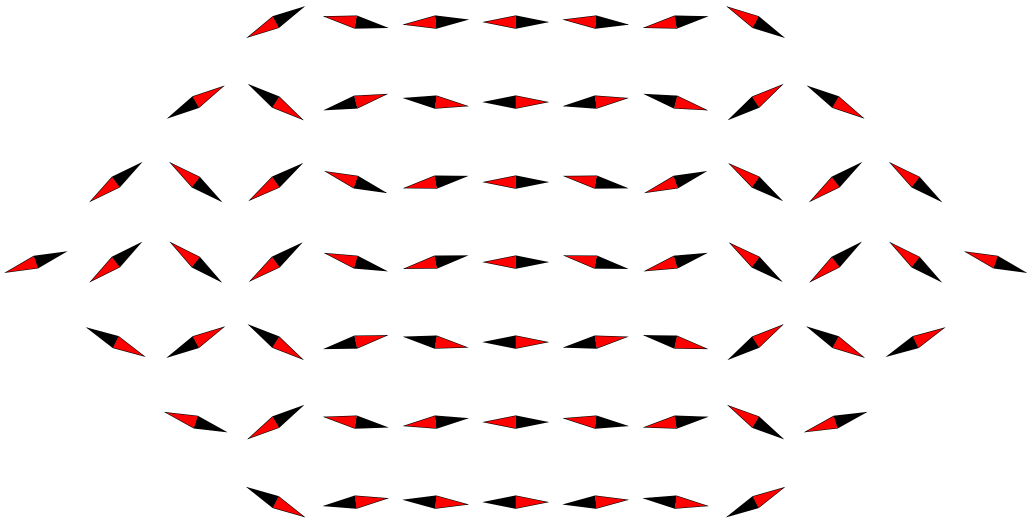


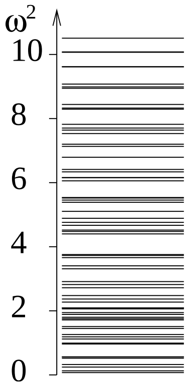
$E_4 = -149.93588$ (160 mal) $\omega_1^2 = 0.08359$



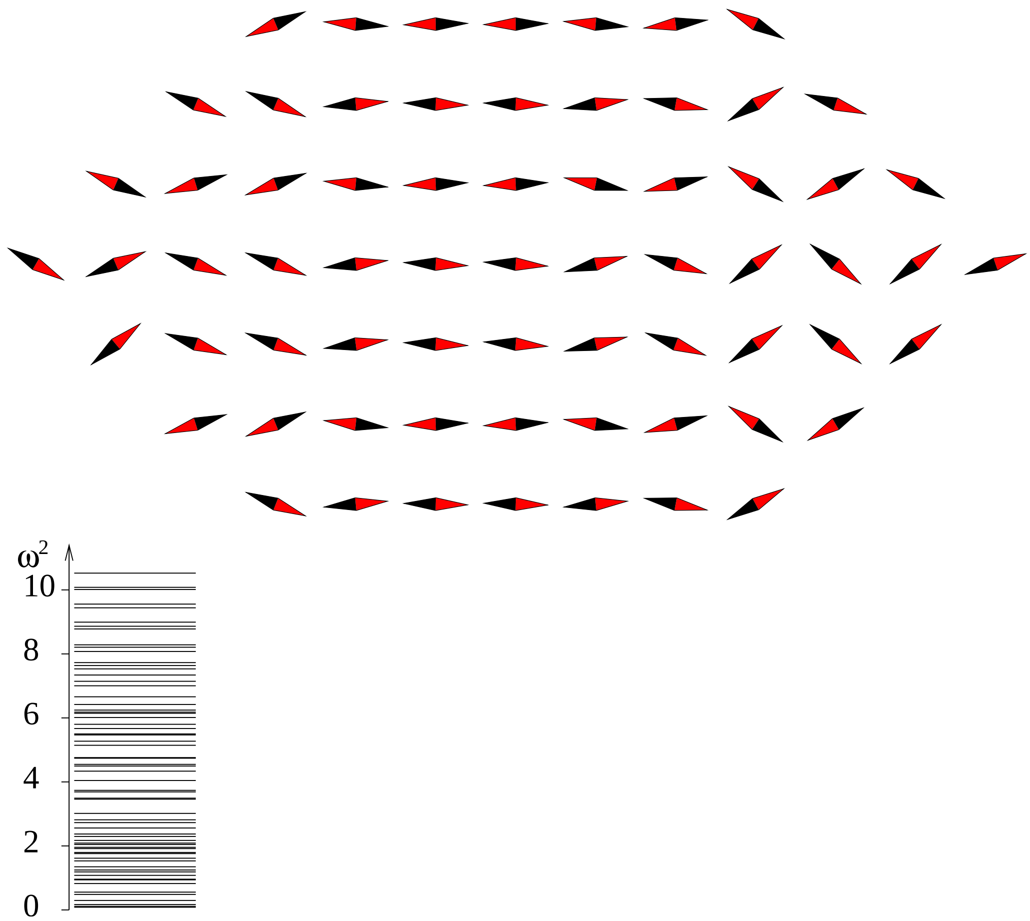


$E_5 = -149.80812$ (50 mal) $\omega_1^2 = 0.08779$

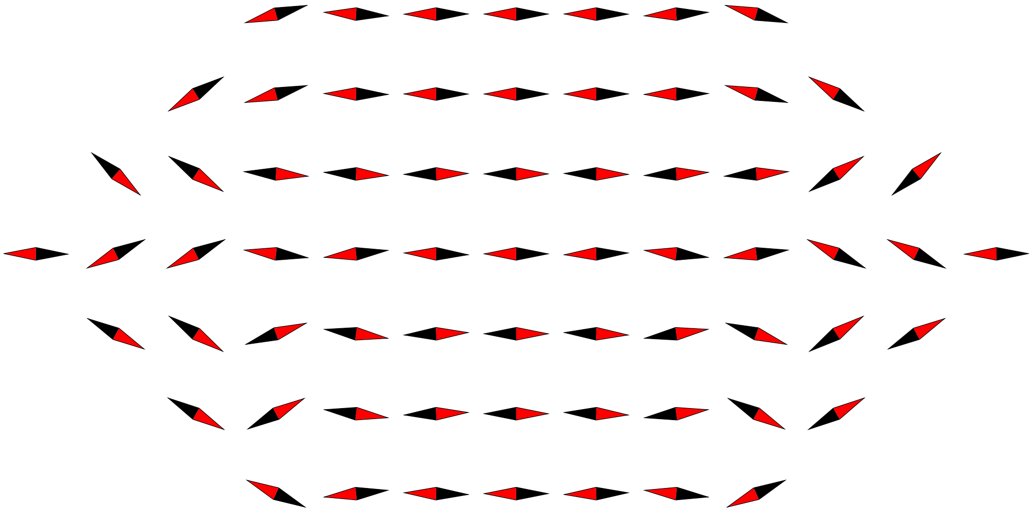


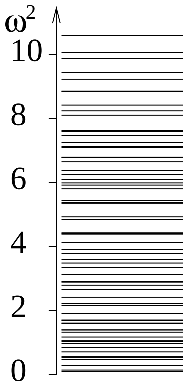


$E_6 = -149.64699$ (106 mal) $\omega_1^2 = 0.07390$

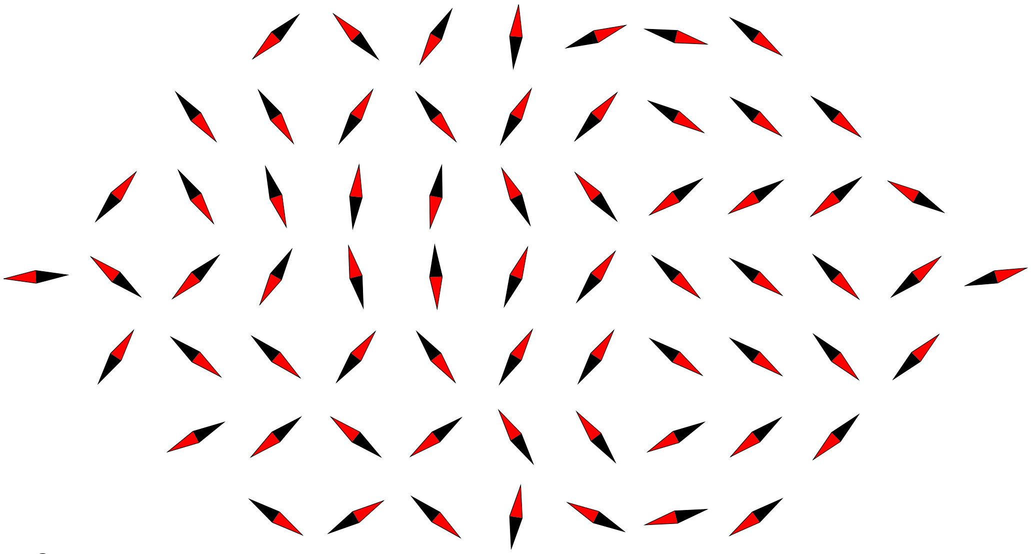


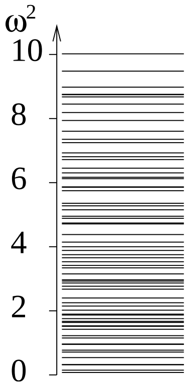
$E_7 = -149.49362$ (180 mal) $\omega_1^2 = 0.08441$



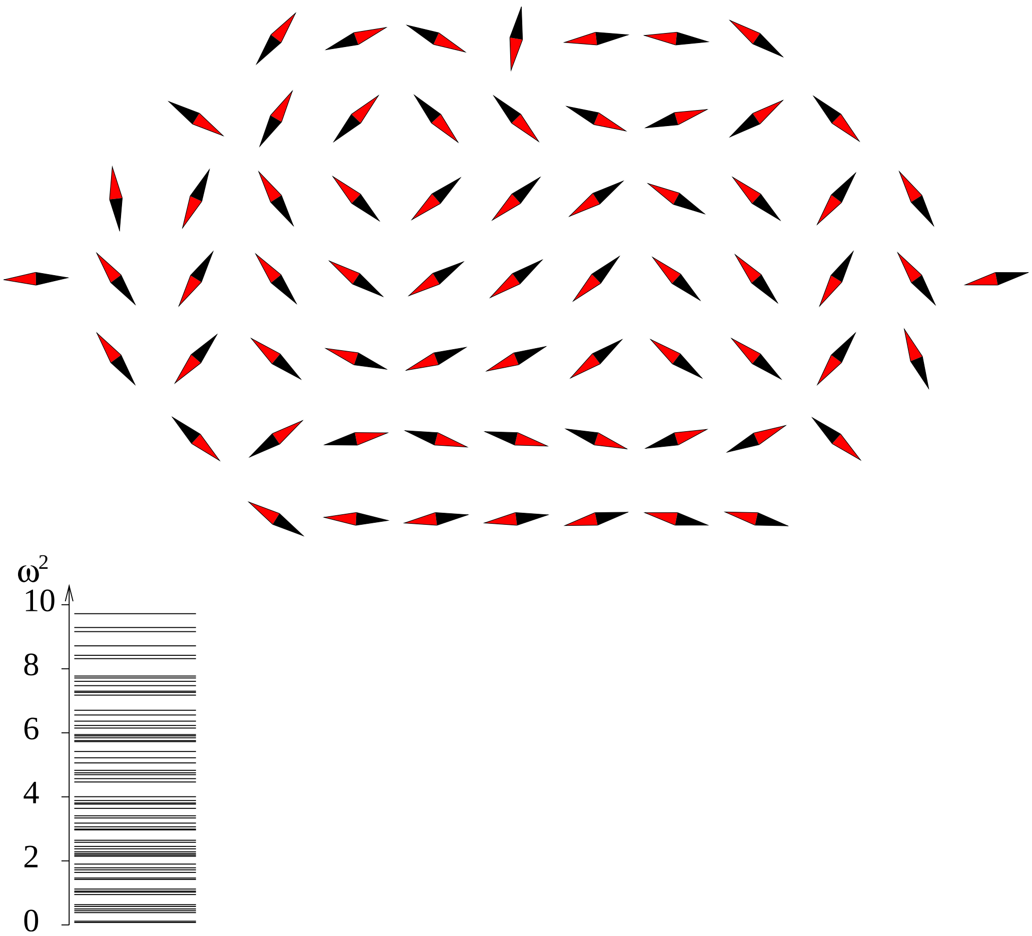


$E_{16} = -147.89308$ (109 mal) $\omega_1^2 = 0.09542$

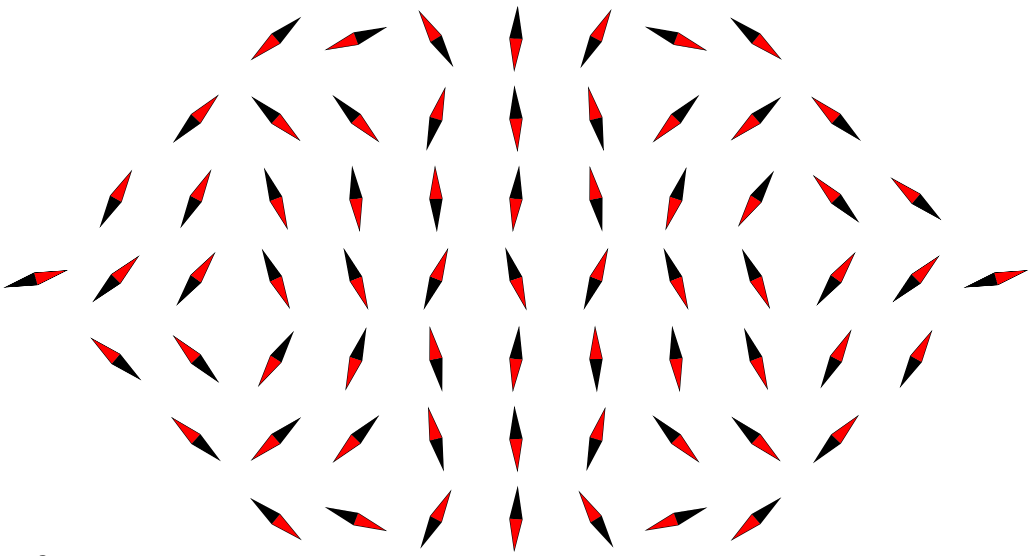


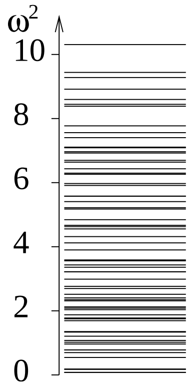


$E_{213} = -140.11926$ (2 mal) $\omega_1^2 = 0.07461$



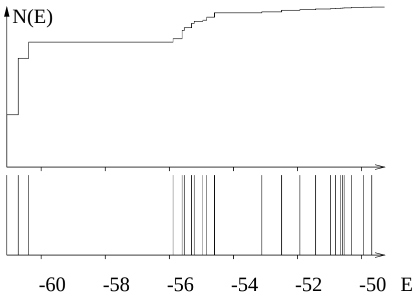
$E_{214} = -139.92174$ (1 mal) $\omega_1^2 = 0.07511$



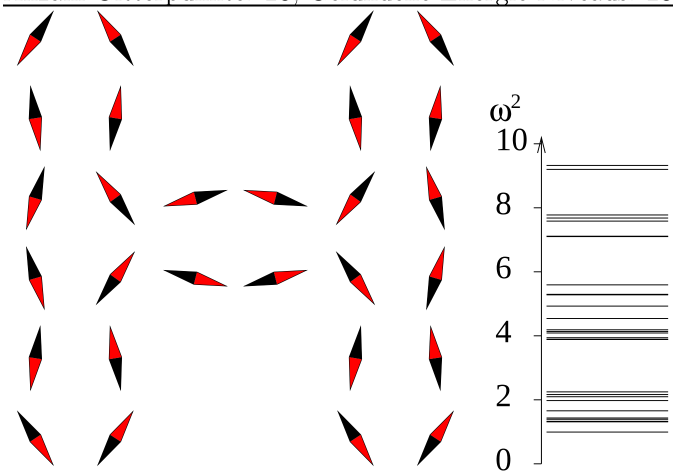


$E_{215} = -139.19990$ (1 mal) $\omega_1^2 = 0.07776$

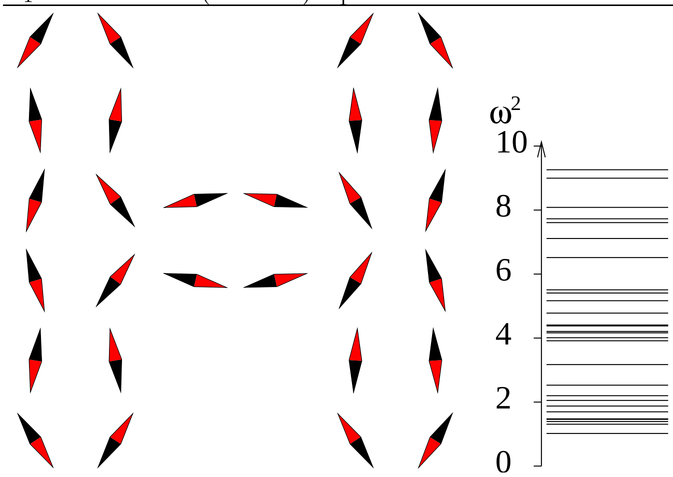
Quadratisches Gitter H(2)



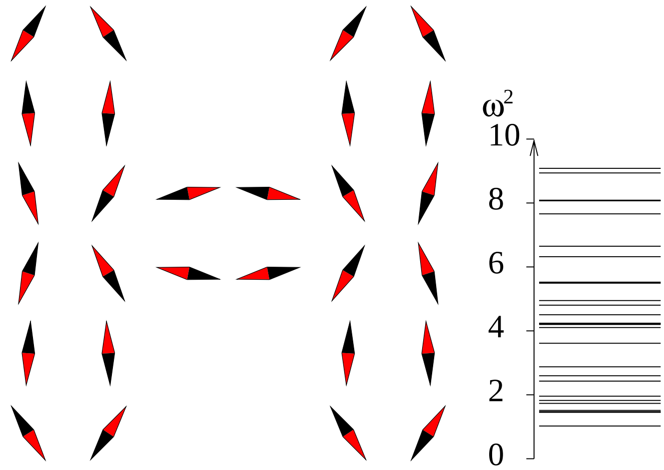
Anzahl Gitterpunkte: 28, Gefundene Energie-Niveaus: 23, Läufe: 1000



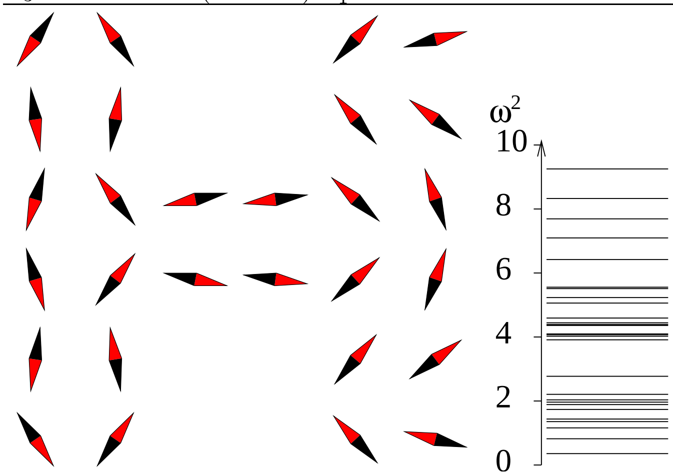
$E_1 = -61.07257$ (327 mal) $\omega_1^2 = 0.99202$



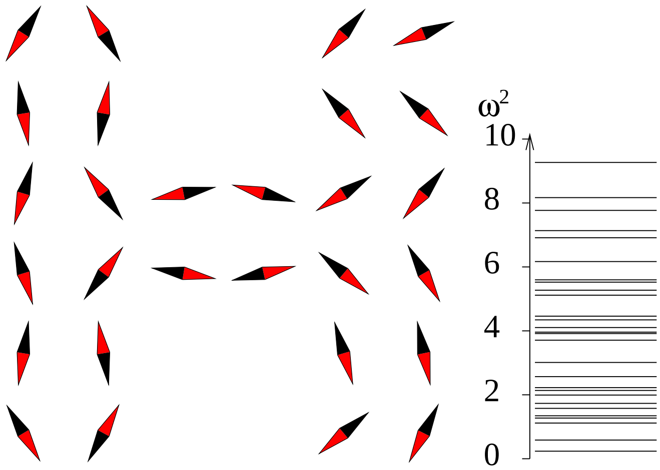
$E_2 = -60.71583$ (353 mal) $\omega_1^2 = 1.02025$



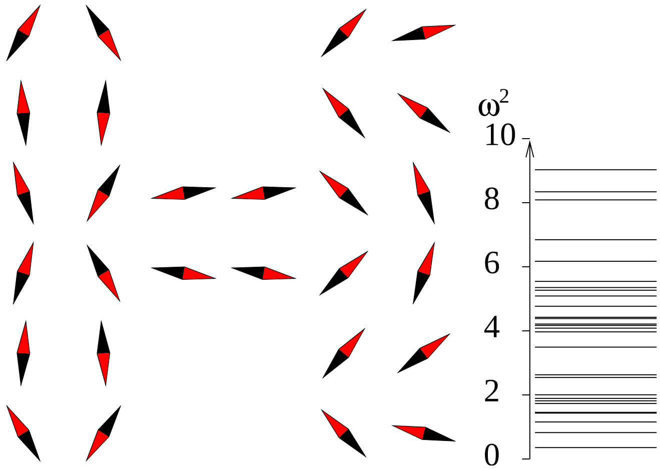
$E_3 = -60.38809$ (101 mal) $\omega_1^2 = 1.02206$



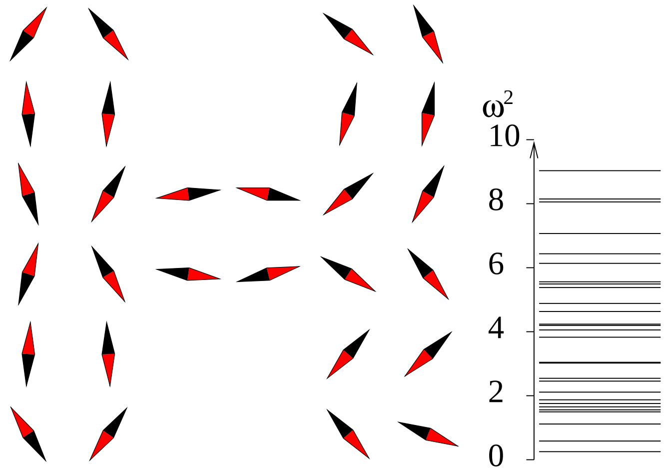
$E_4 = -55.88403$ (21 mal) $\omega_1^2 = 0.35519$



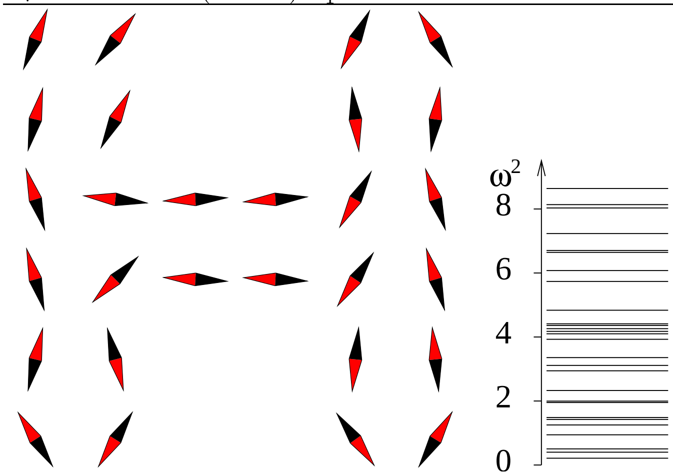
$E_5 = -55.60247$ (52 mal) $\omega_1^2 = 0.23528$



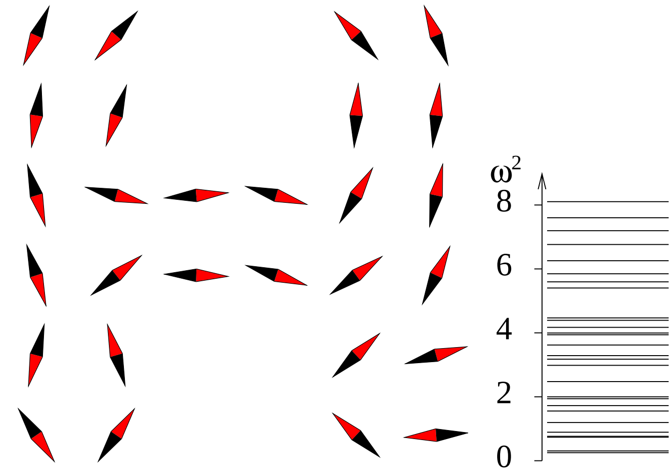
$E_6 = -55.53437$ (17 mal) $\omega_1^2 = 0.35508$



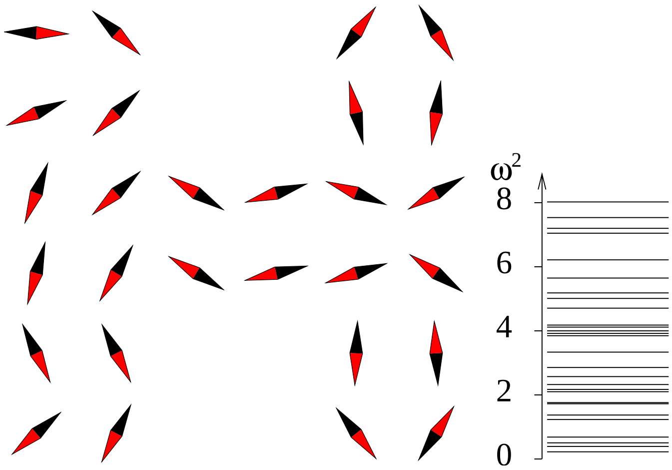
$E_7 = -55.30484$ (27 mal) $\omega_1^2 = 0.25260$



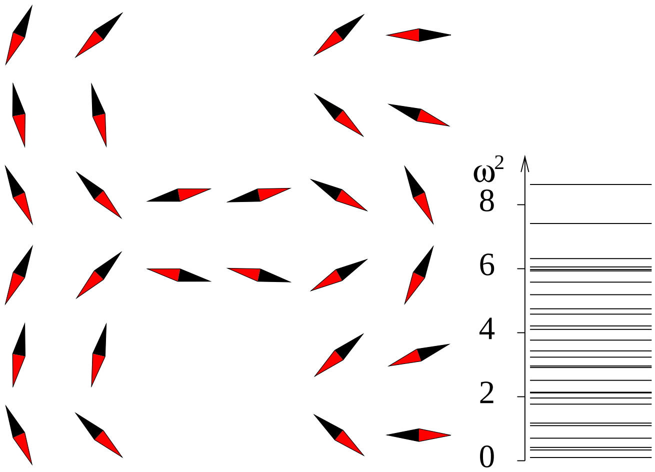
$E_{11} = -54.59182$ (27 mal) $\omega_1^2 = 0.21300$



$E_{21} = -50.31978$ (3 mal) $\omega_1^2 = 0.25289$

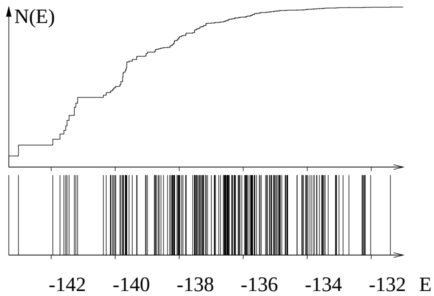


$E_{22} = -49.94738$ (1 mal) $\omega_1^2 = 0.22472$

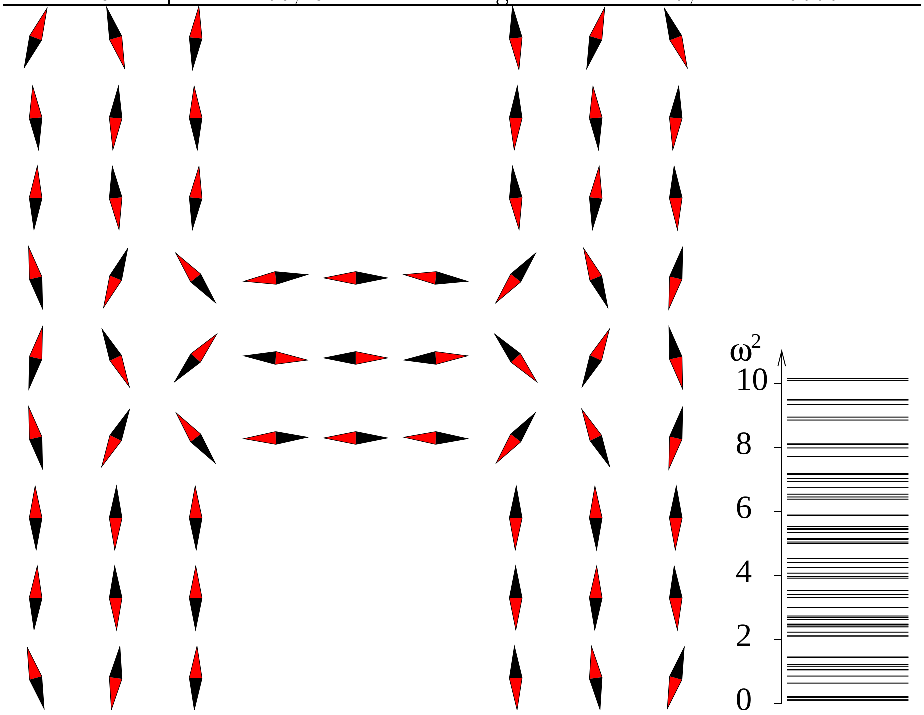


$E_{23} = -49.68192$ (1 mal) $\omega_1^2 = 0.09995$

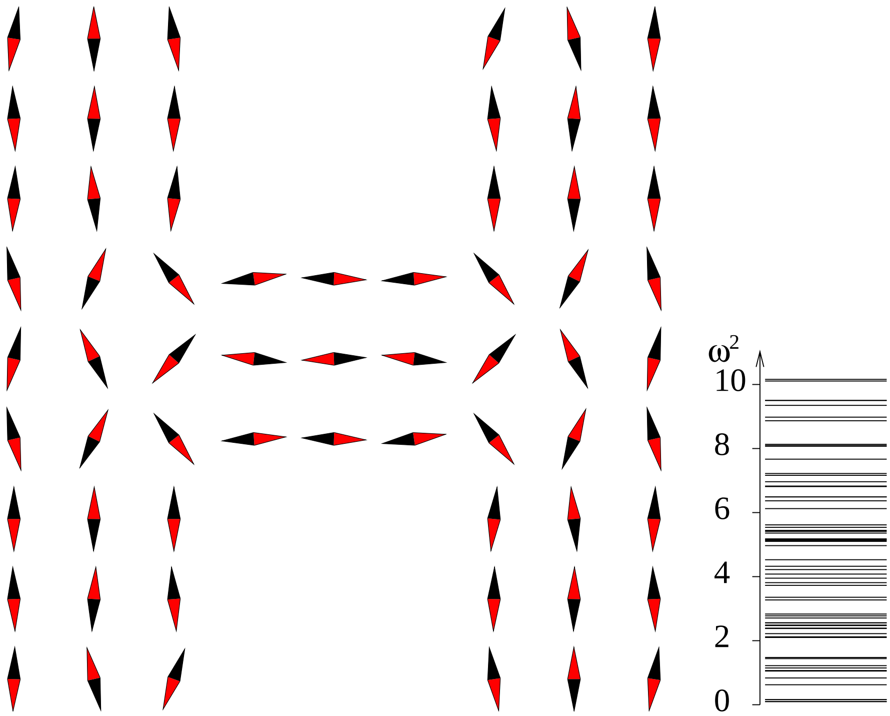
Quadratisches Gitter H(3)



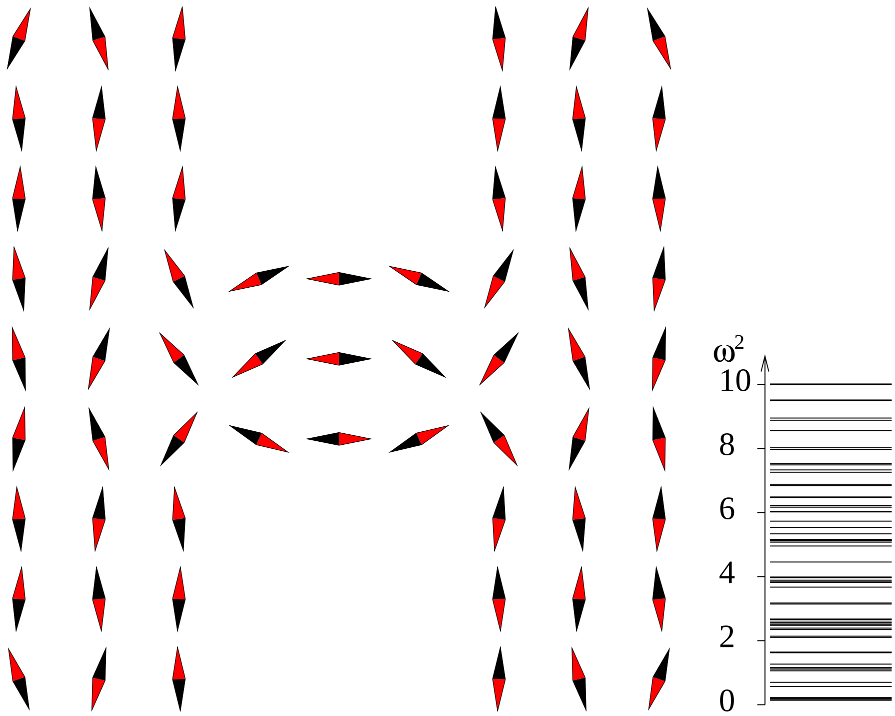
Anzahl Gitterpunkte: 63, Gefundene Energie-Niveaus: 219, Läufe: 3000



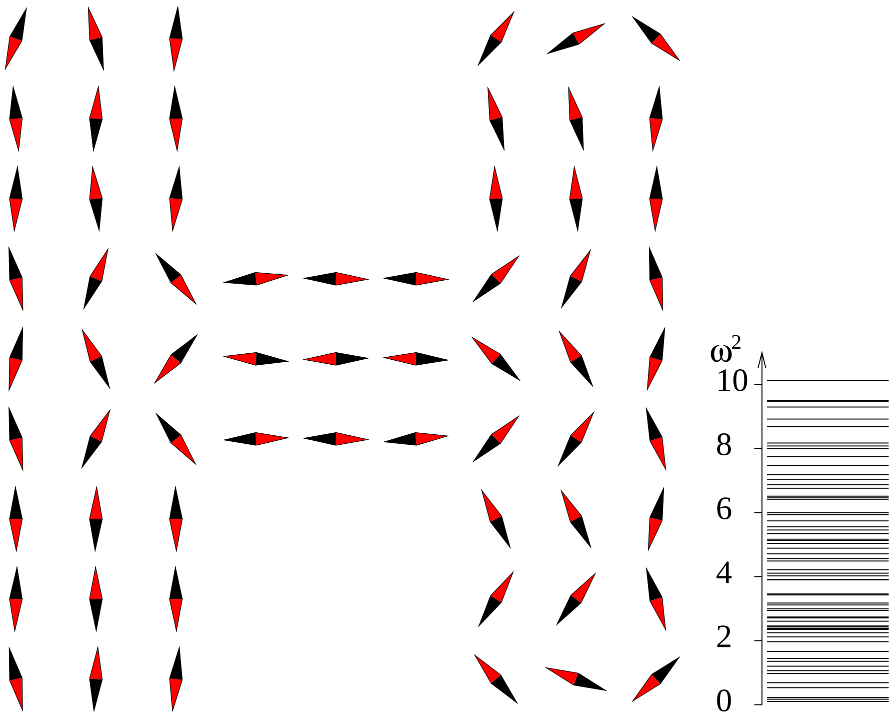
$E_1 = -143.32490$ (209 mal) $\omega_1^2 = 0.10278$



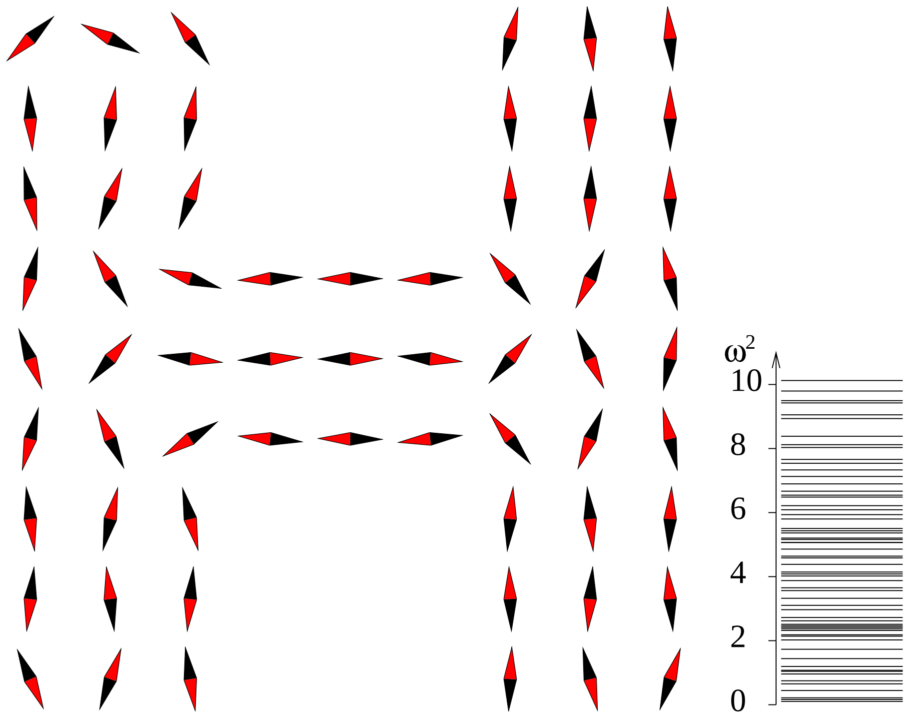
$E_2 = -143.02279$ (203 mal) $\omega_1^2 = 0.09780$



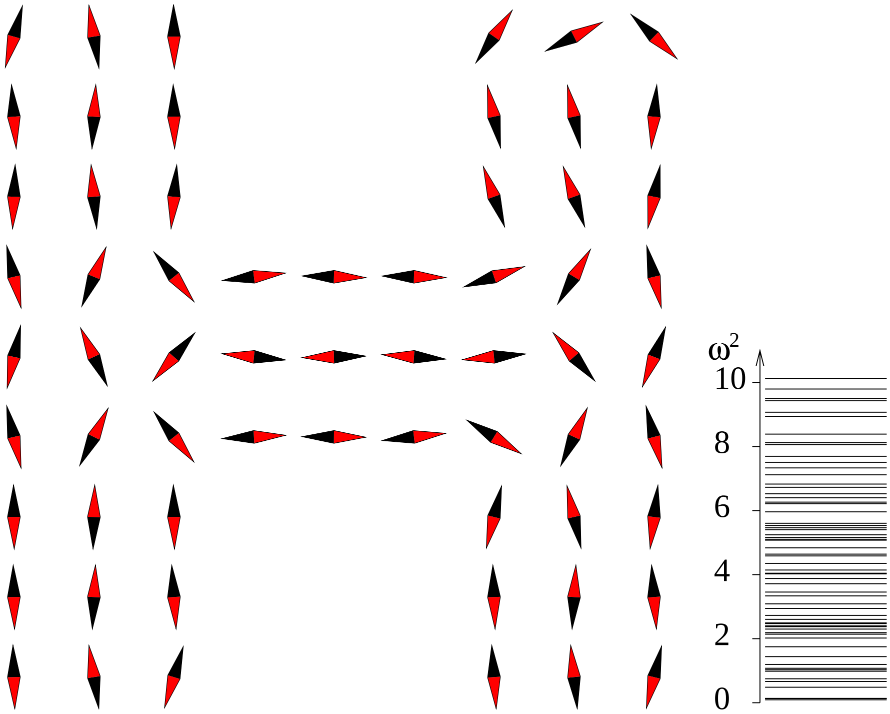
$E_3 = -141.94923$ (110 mal) $\omega_1^2 = 0.14053$



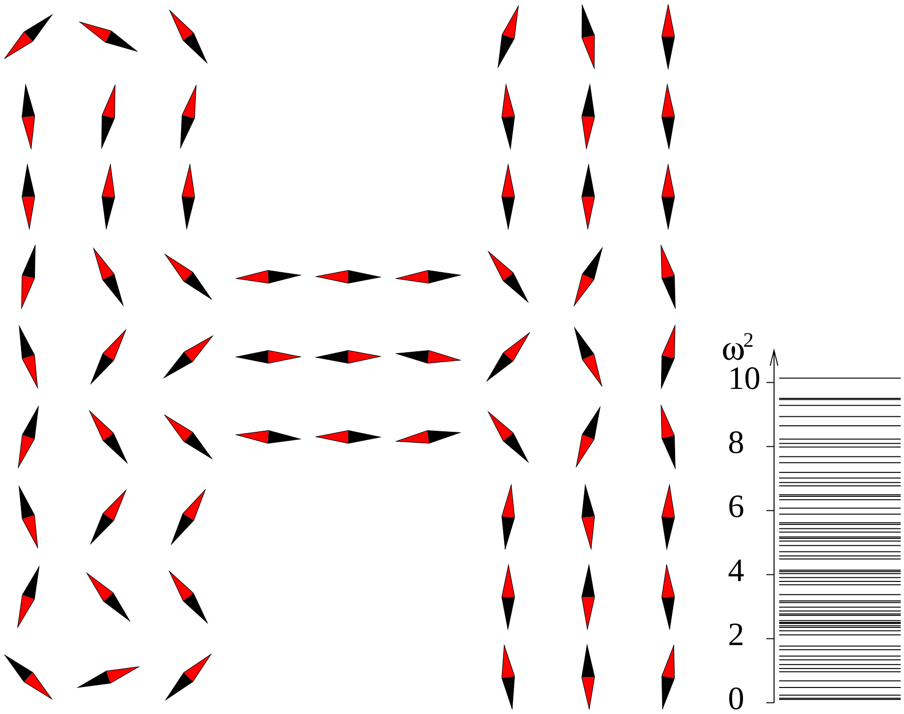
$E_4 = -141.72515$ (97 mal) $\omega_1^2 = 0.10057$



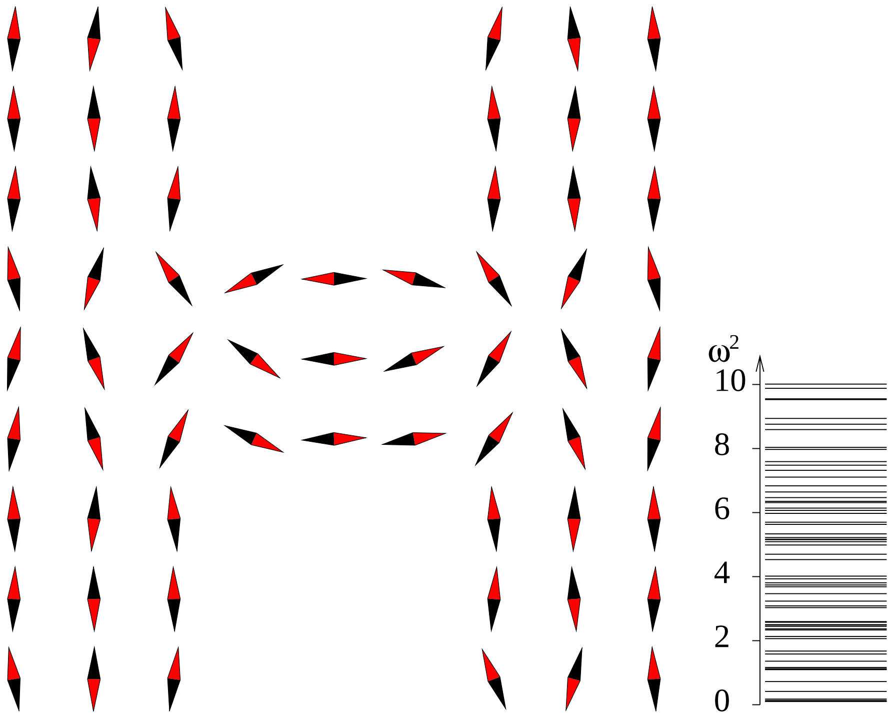
$E_5 = -141.60318$ (70 mal) $\omega_1^2 = 0.10455$



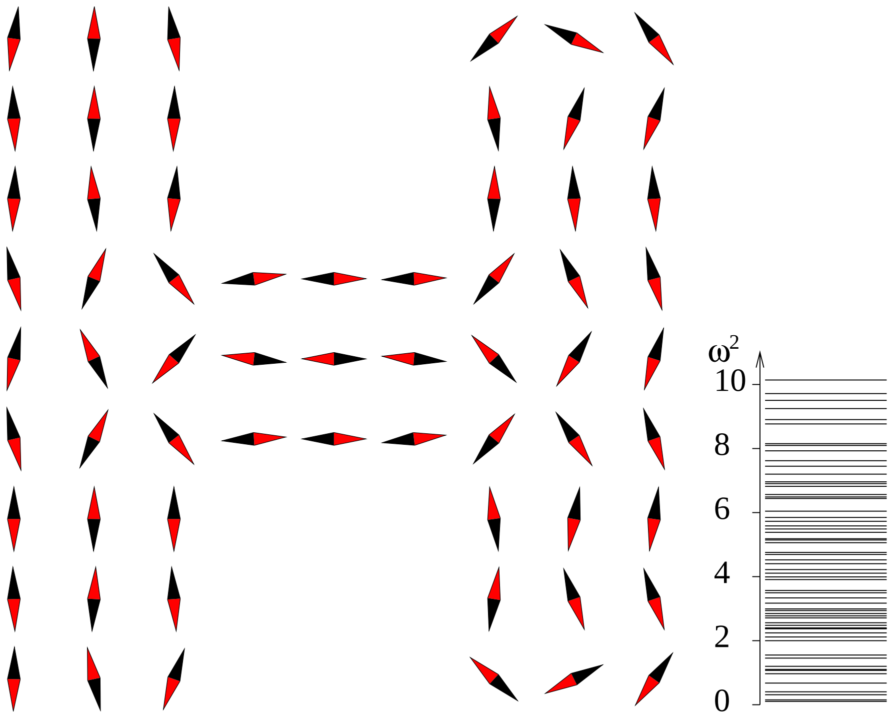
$E_6 = -141.54366$ (84 mal) $\omega_1^2 = 0.09060$



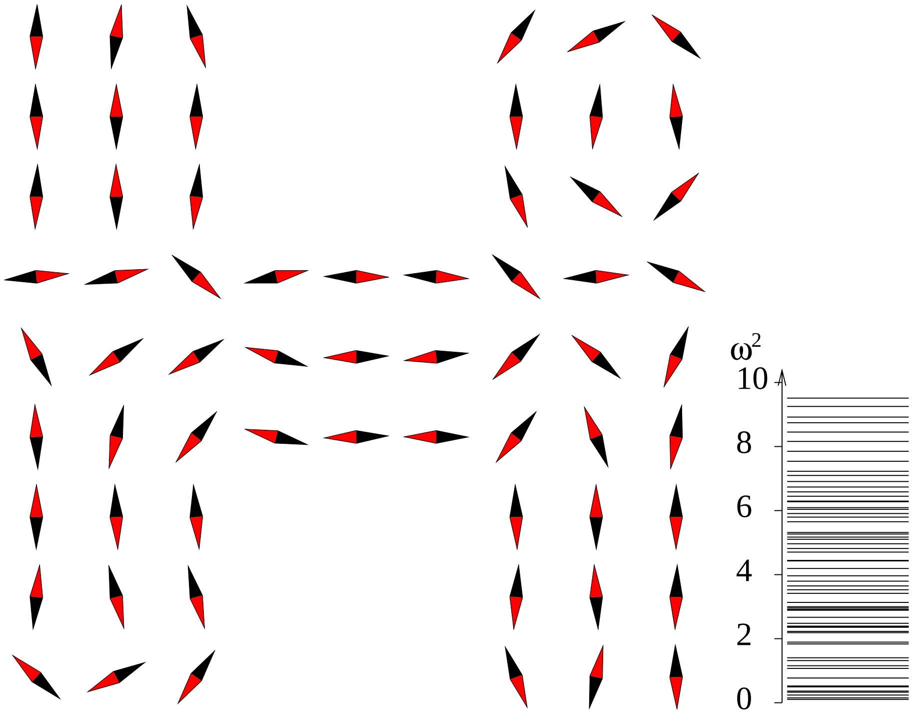
$E_7 = -141.50422$ (103 mal) $\omega_1^2 = 0.10350$



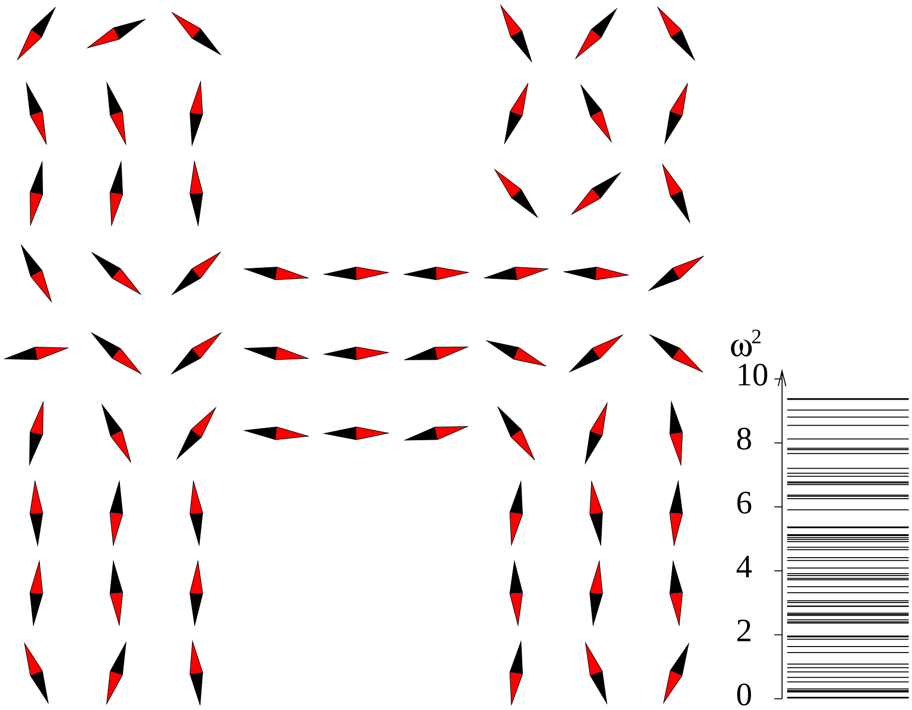
$E_9 = -141.27744$ (153 mal) $\omega_1^2 = 0.10068$



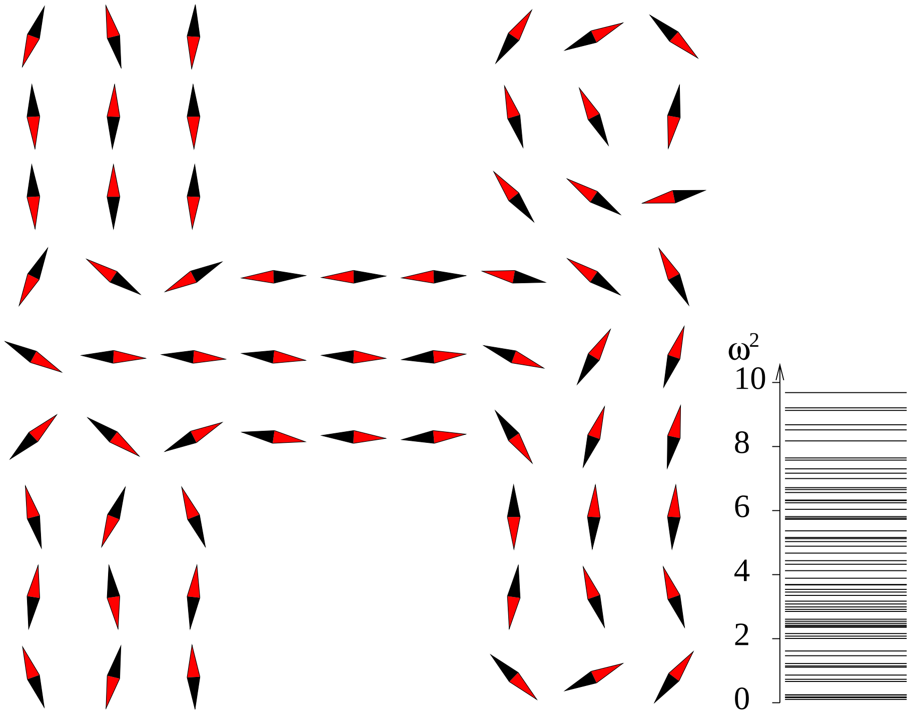
$E_{11} = -141.17356$ (109 mal) $\omega_1^2 = 0.10425$



$E_{217} = -132.18840$ (1 mal) $\omega_1^2 = 0.10536$

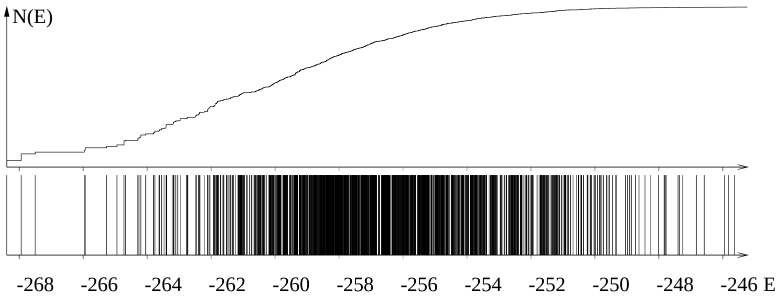


$E_{218} = -132.01674$ (1 mal) $\omega_1^2 = 0.02476$

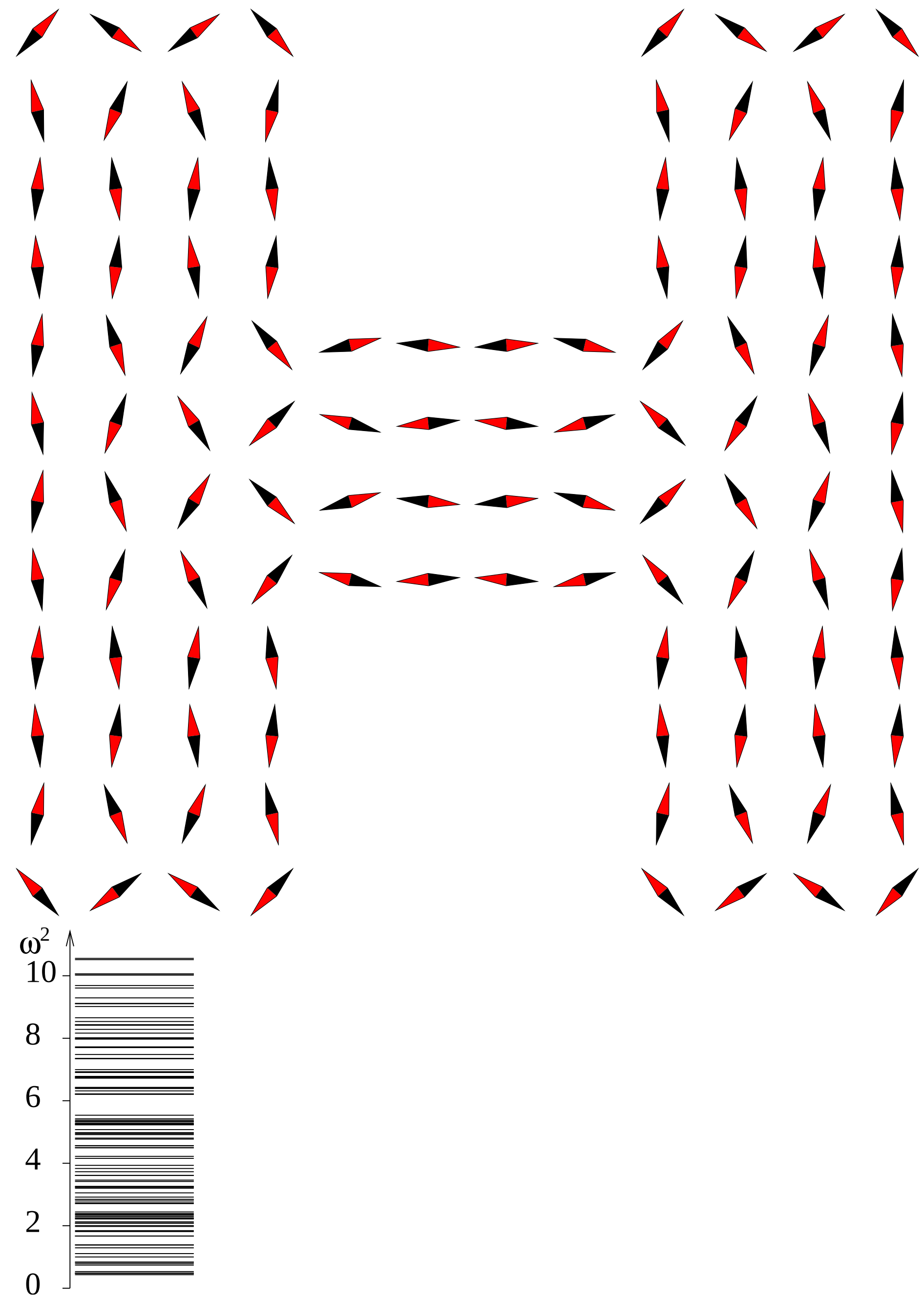


$E_{219} = -131.40241$ (3 mal) $\omega_1^2 = 0.10304$

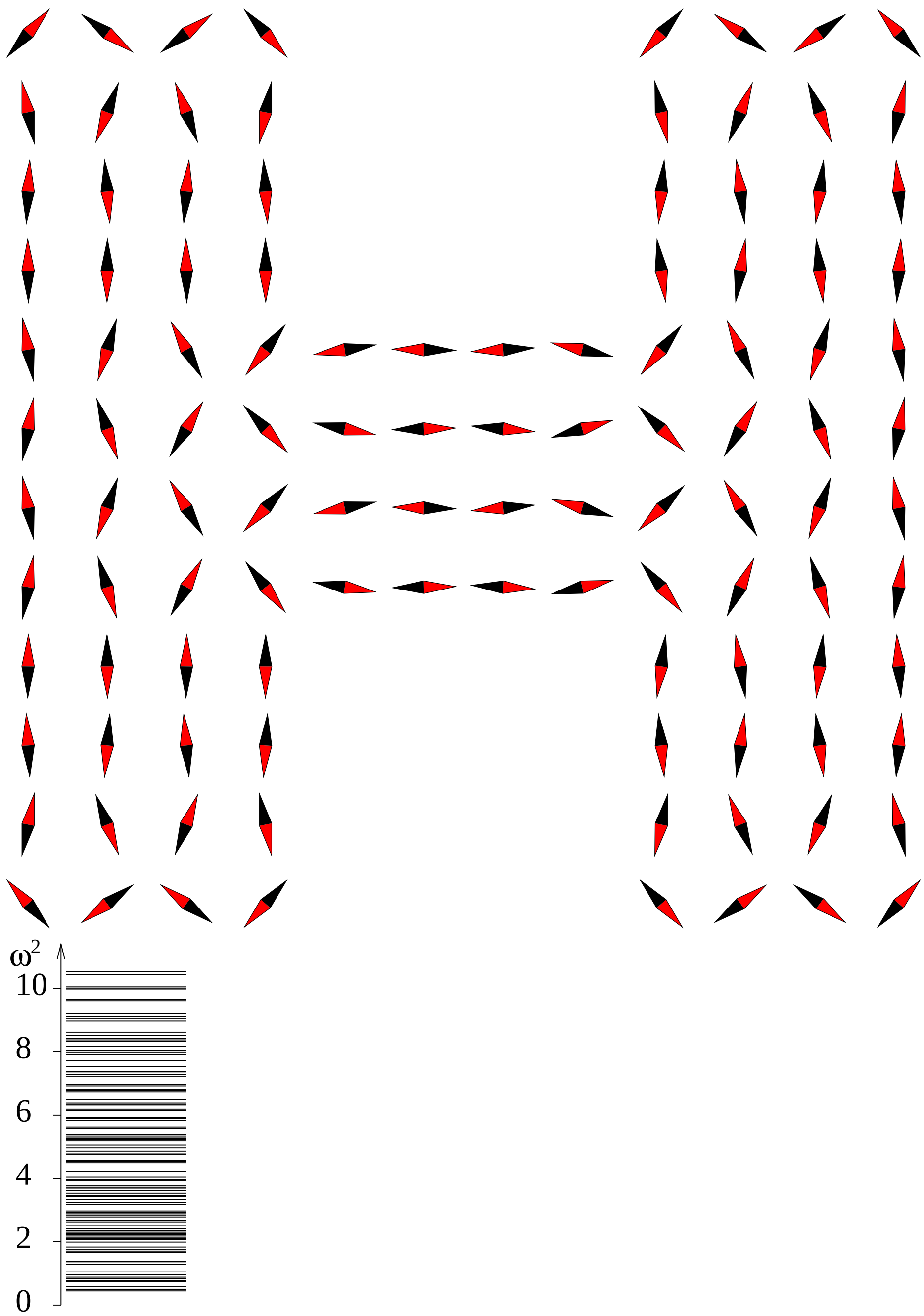
Quadratisches Gitter H(4)



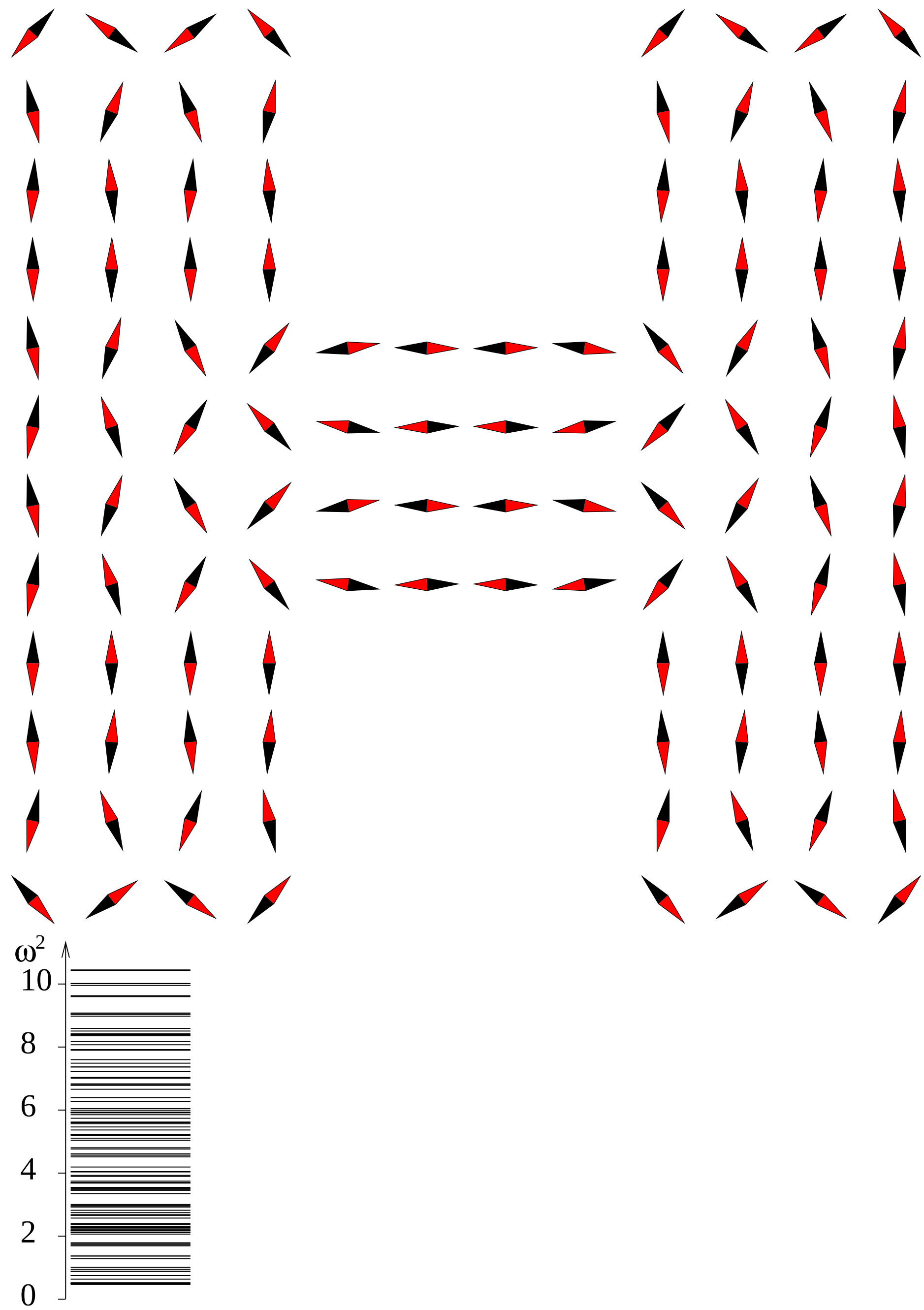
Anzahl Gitterpunkte: 112, Gefundene Energie-Niveaus: 1059, Läufe: 3000



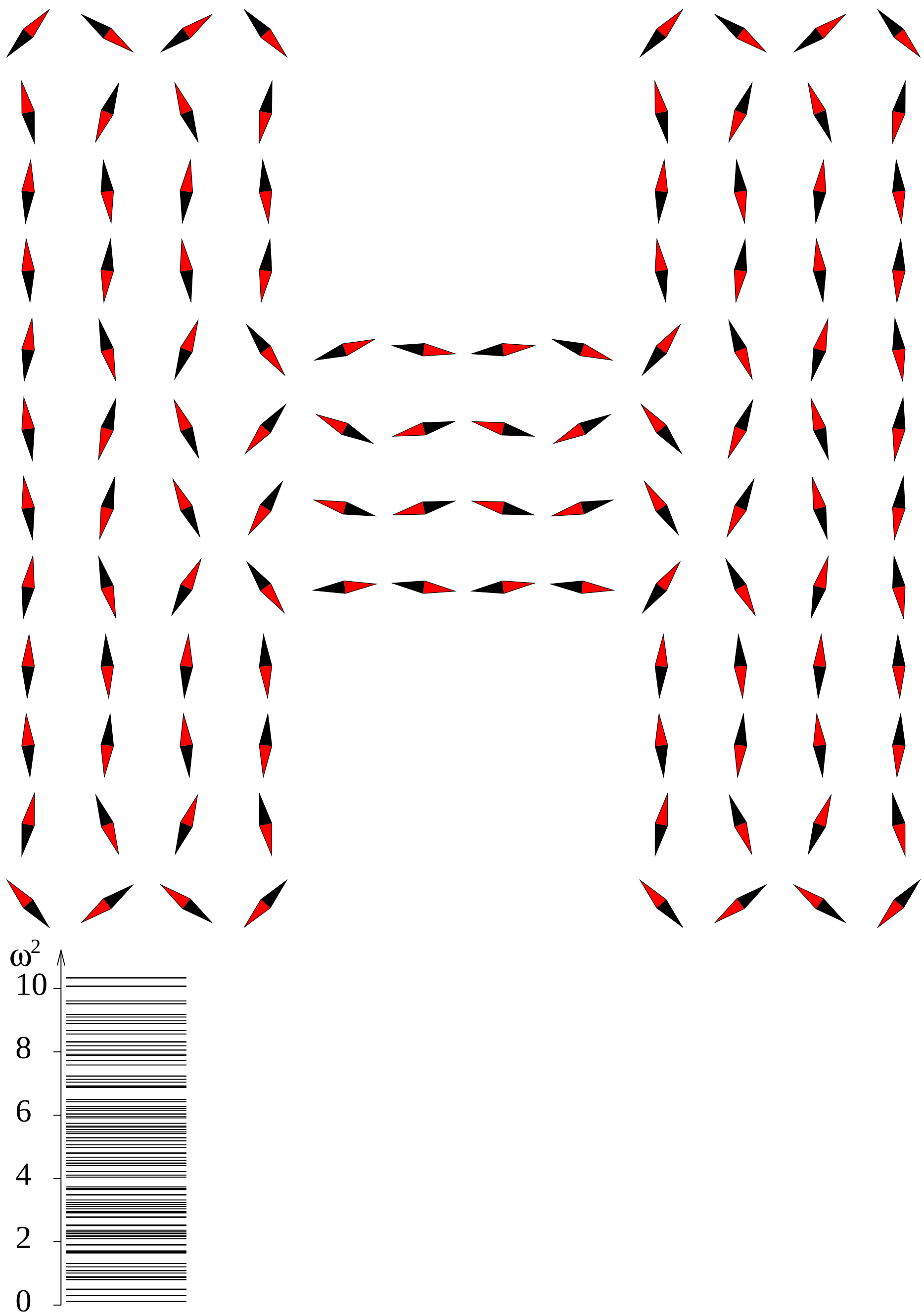
$E_1 = -268.38650$ (125 mal) $\omega_1^2 = 0.43150$



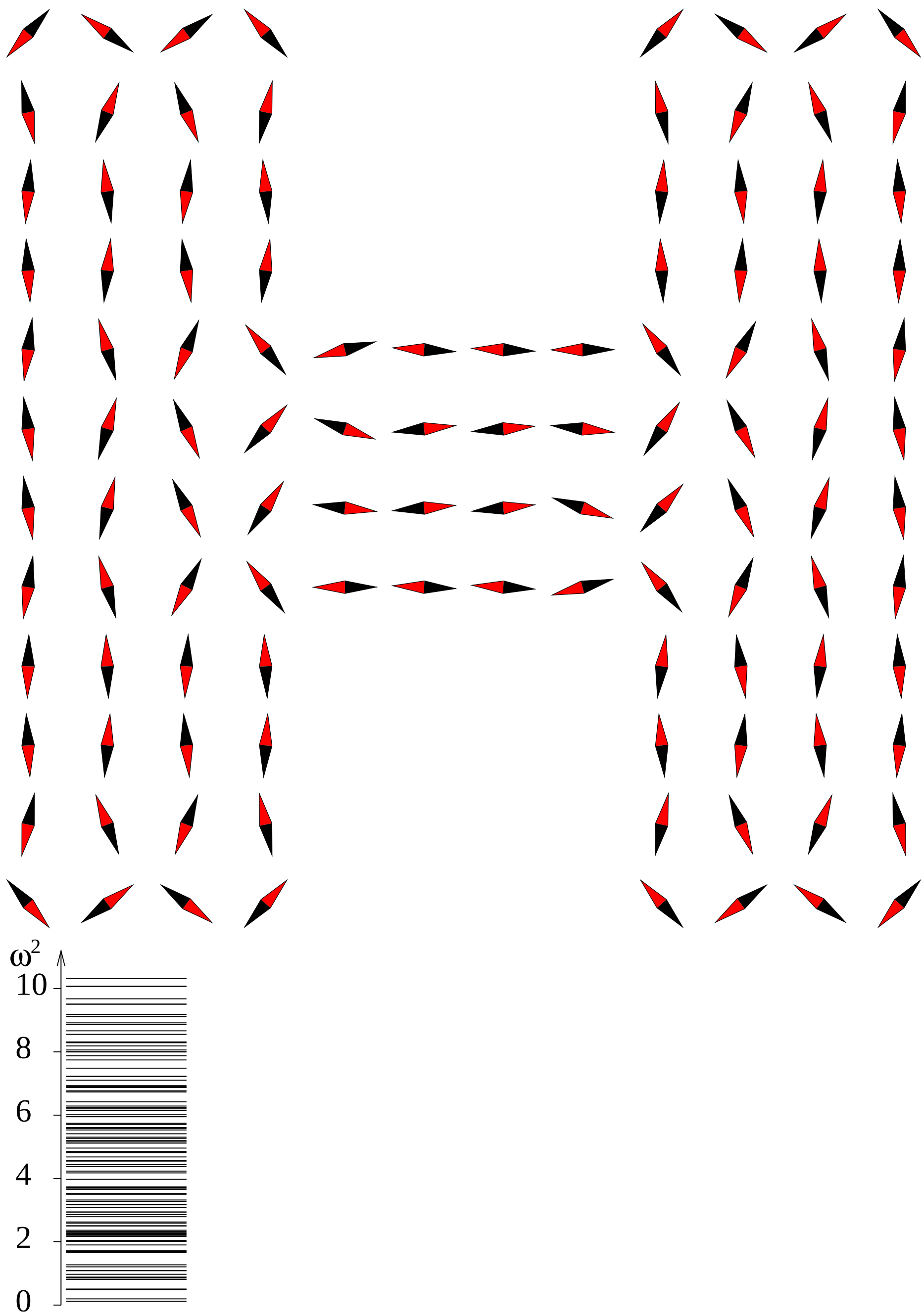
$E_2 = -267.93636$ (122 mal) $\omega_1^2 = 0.44928$



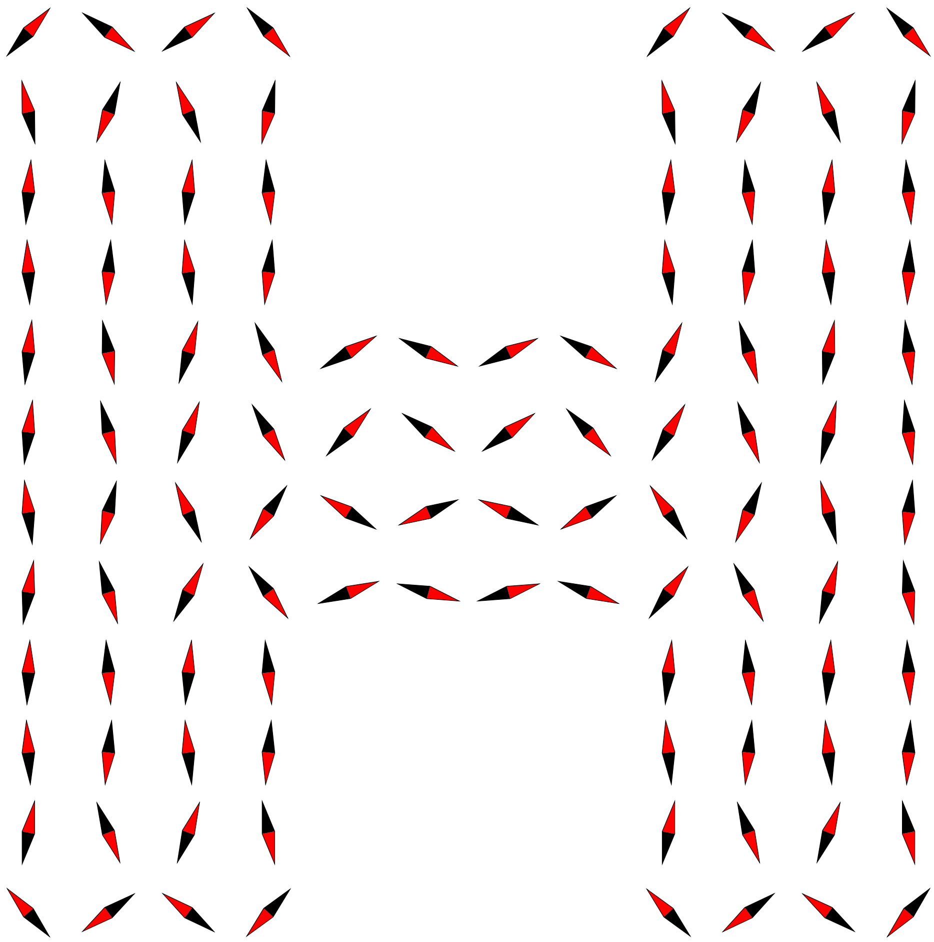
$E_3 = -267.49966$ (34 mal) $\omega_1^2 = 0.46728$

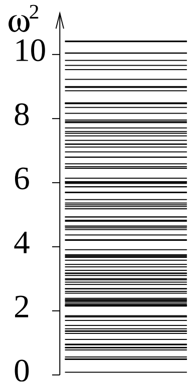


$E_4 = -265.96501$ (38 mal) $\omega_1^2 = 0.11794$

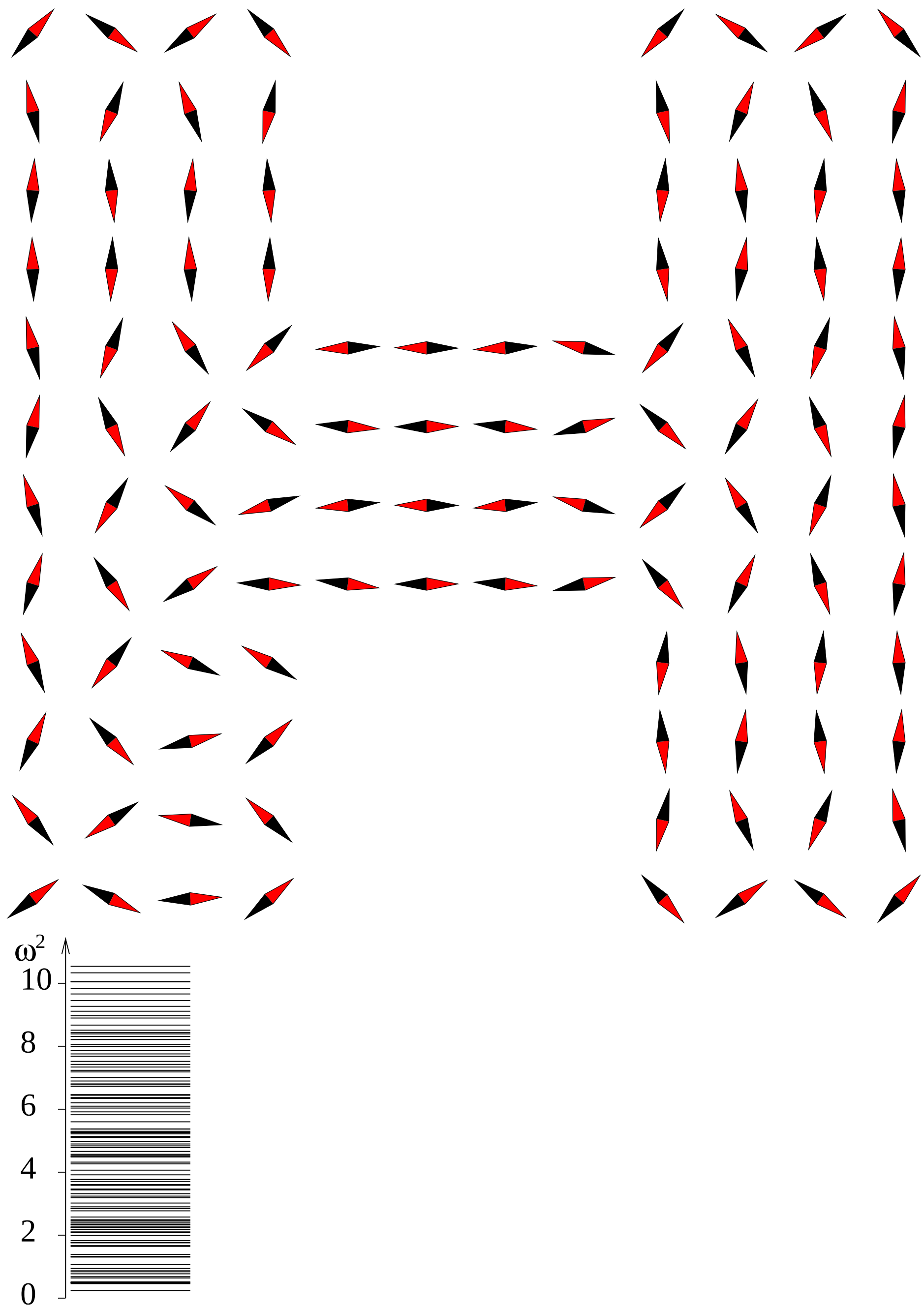


$E_5 = -265.93332$ (43 mal) $\omega_1^2 = 0.12075$

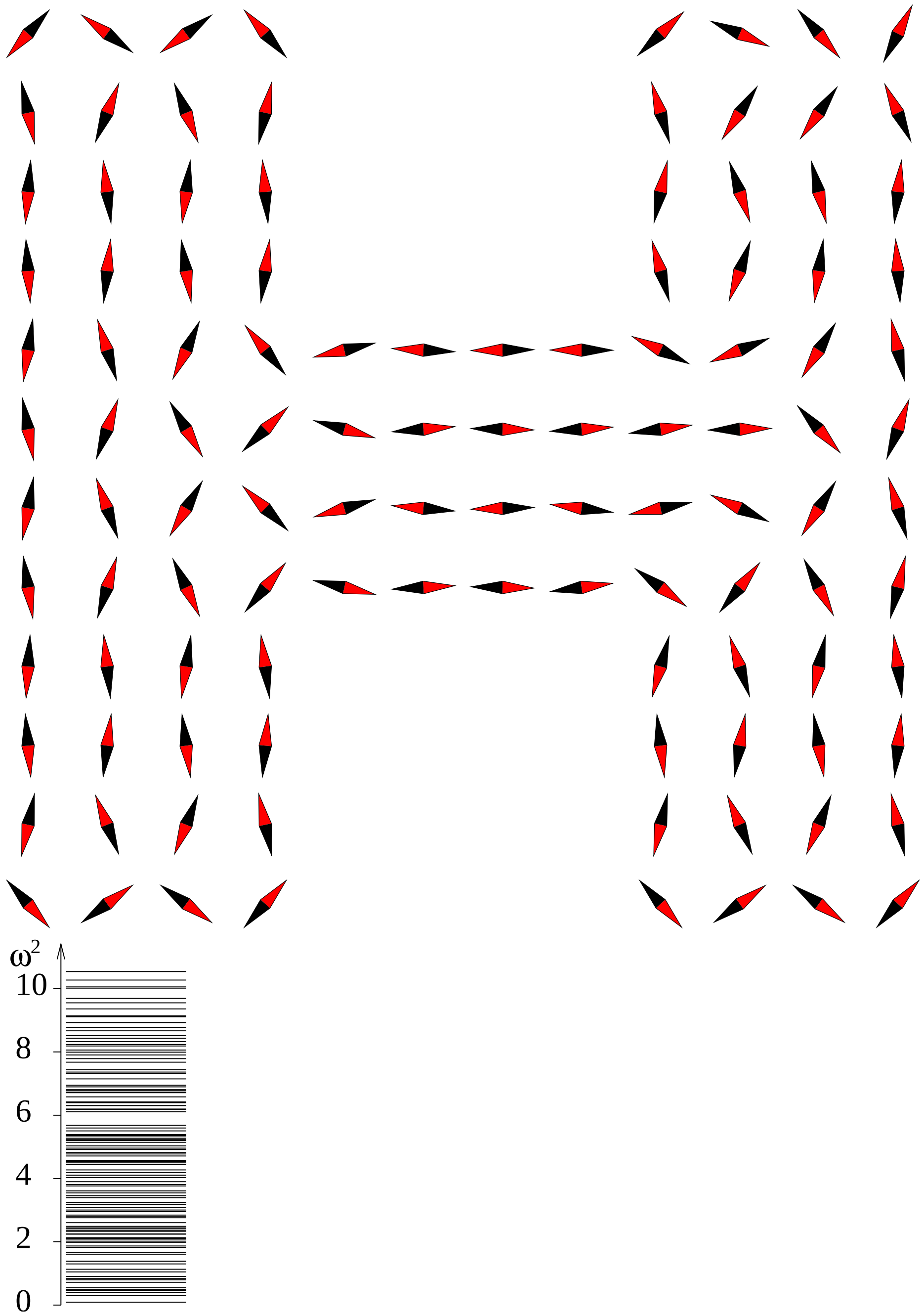




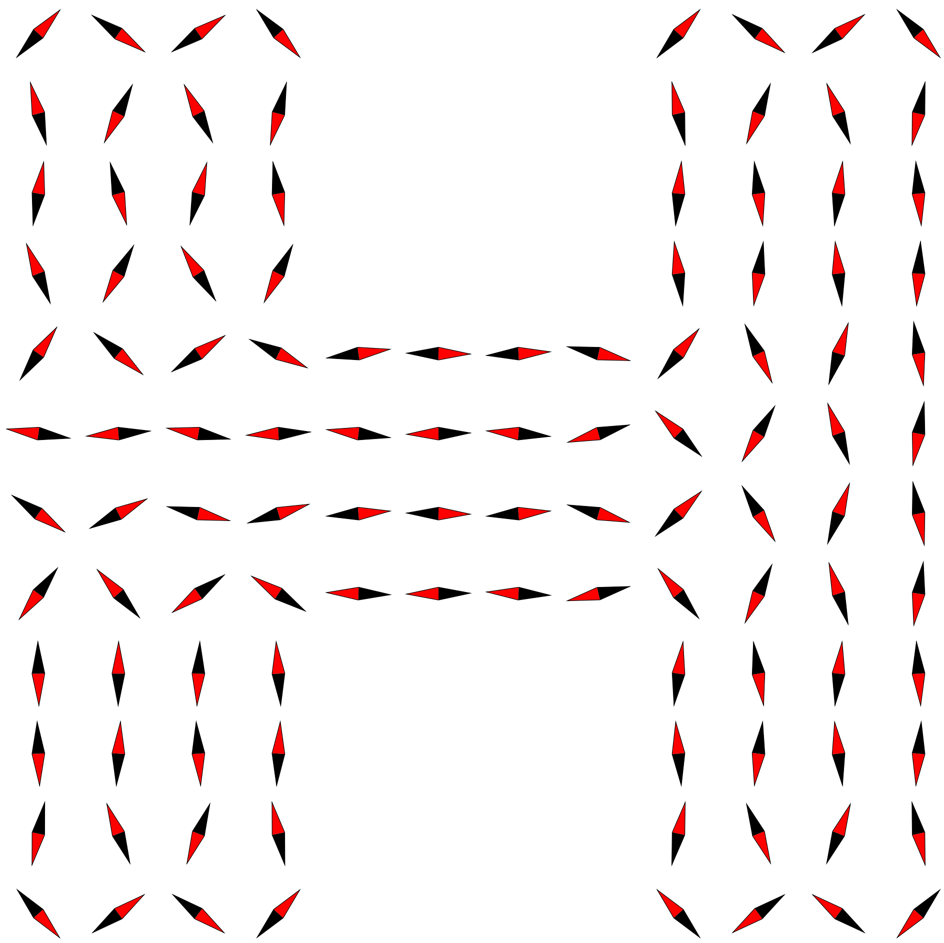
$E_6 = -265.26604$ (25 mal) $\omega_1^2 = 0.08297$

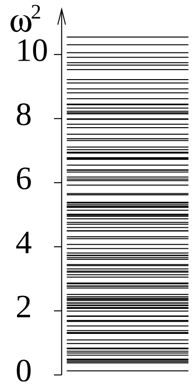


$E_8 = -264.72164$ (75 mal) $\omega_1^2 = 0.24200$

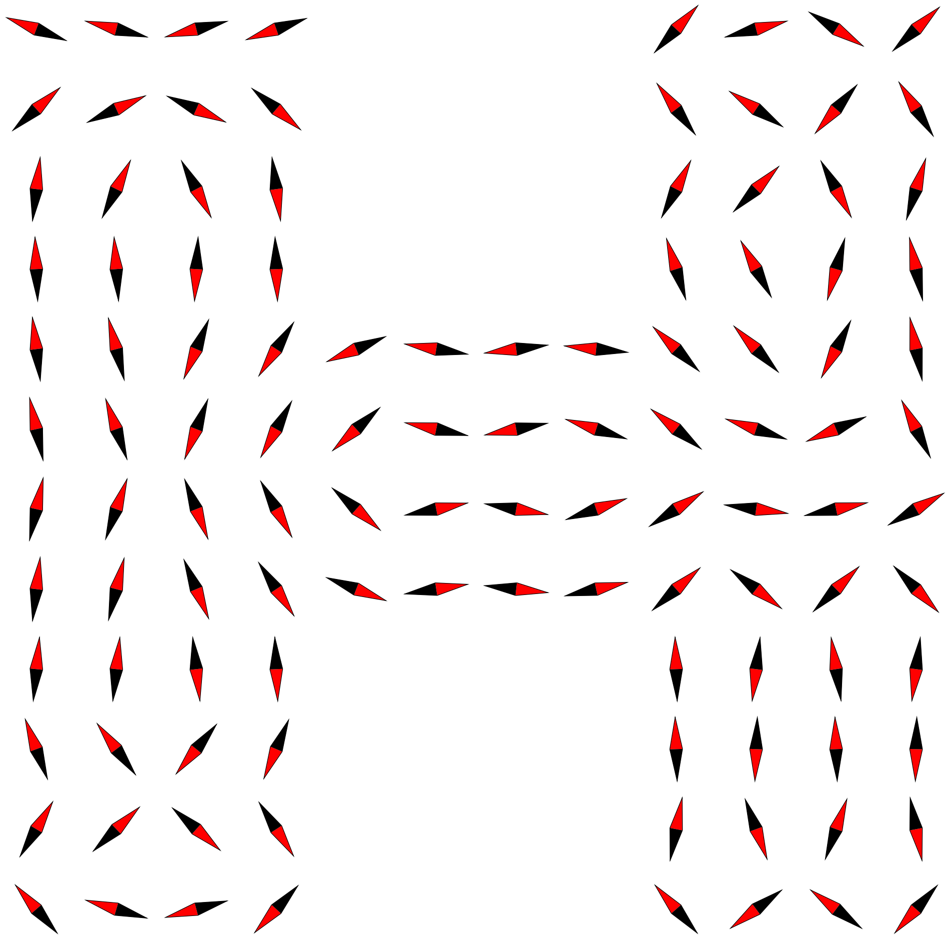


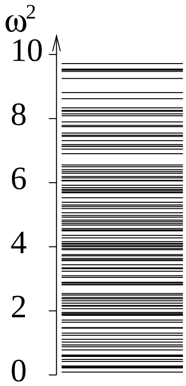
$E_{12} = -264.19464$ (42 mal) $\omega_1^2 = 0.09018$



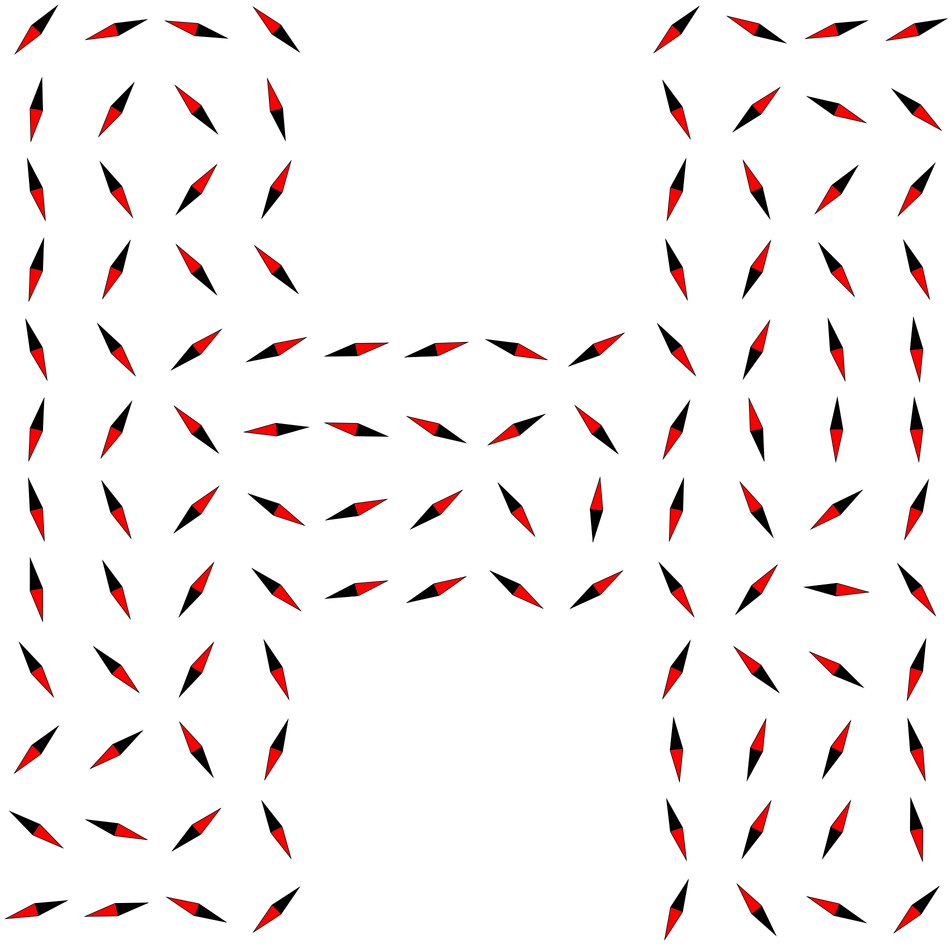


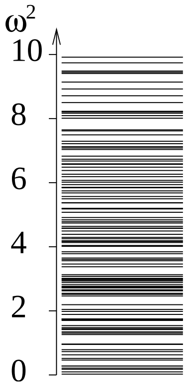
$E_{21} = -263.40637$ (56 mal) $\omega_1^2 = 0.12989$



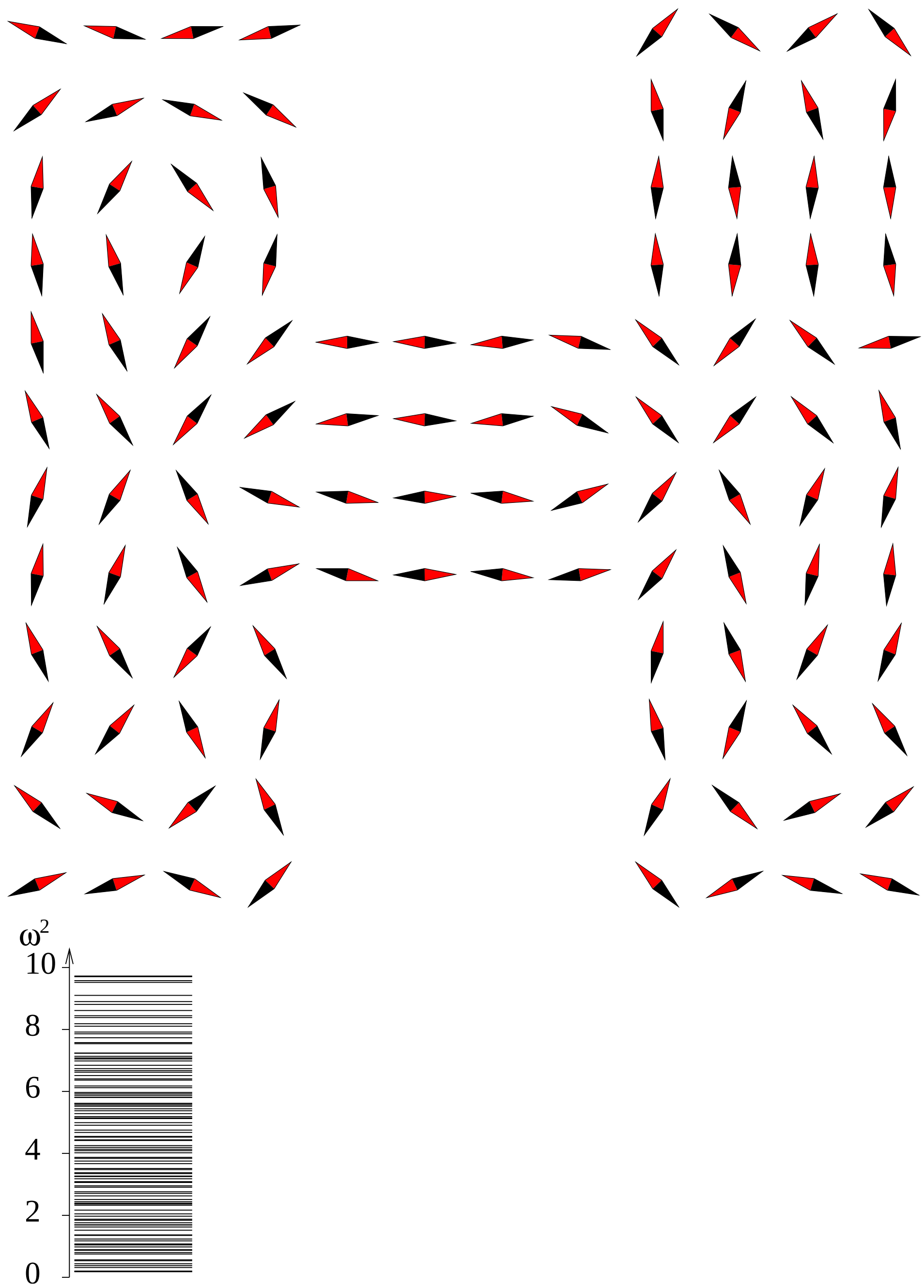


$E_{1057} = -245.94611$ (1 mal) $\omega_1^2 = 0.08931$





$E_{1058} = -245.82465$ (1 mal) $\omega_1^2 = 0.02288$



$E_{1059} = -245.63186$ (1 mal) $\omega_1^2 = 0.18192$

Inhalt