Ordnung und Unordnung

oder

Dipolare Gläser

Gleichgewichts-Konfigurationen von Magneten auf verschiedenen Gittern
Teil 3: Gitter außer Dreiecks- und quadratischen Gittern

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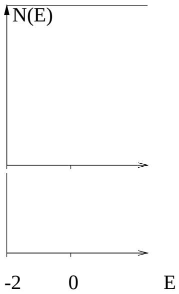
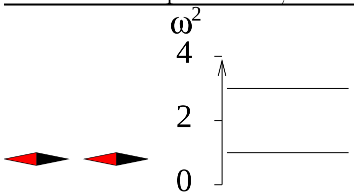
Diese Berechnungen wurden anlässlich der Erstellung der Plastik Ordnung und Unordnung im Kirchhoff-Institut für Physik der Universität Heidelberg durchgeführt.

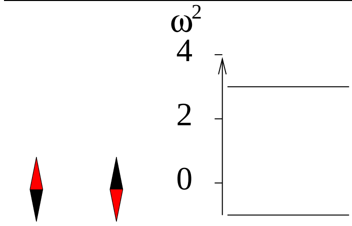
Lineare Kette mit 2 Gitterpunkten



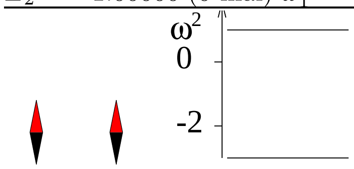
Anzahl Gitterpunkte: 2, Gefundene Energie-Niveaus: 1, Läufe: 1000



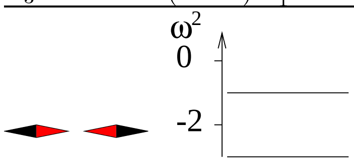
$E_1 = -2.00000$ (1000 mal) $\omega_1^2 = 1.00000$



$E_2 = -1.00000$ (0 mal) $\omega_1^2 = -1.00000$

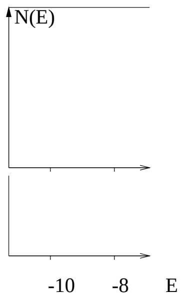


$E_3 = 1.00000$ (0 mal) $\omega_1^2 = -3.00000$

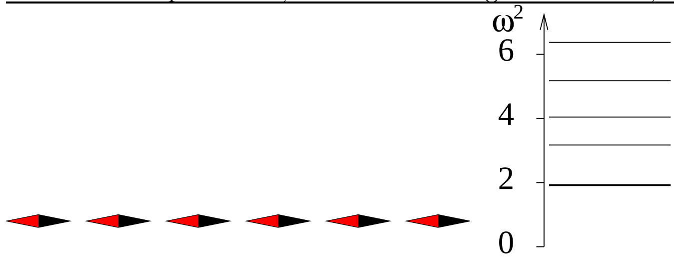


$E_4 = 2.00000$ (0 mal) $\omega_1^2 = -3.00000$

Lineare Kette mit 6 Gitterpunkten

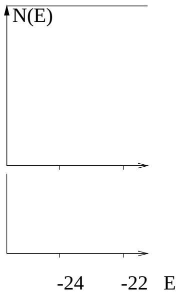


Anzahl Gitterpunkte: 6, Gefundene Energie-Niveaus: 1, Läufe: 1000

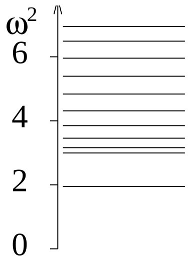


$E_1 = -11.30072$ (1000 mal) $\omega_1^2 = 1.90759$

Lineare Kette mit 12 Gitterpunkten

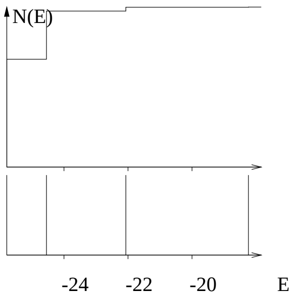


Anzahl Gitterpunkte: 12, Gefundene Energie-Niveaus: 1, Läufe: 1000

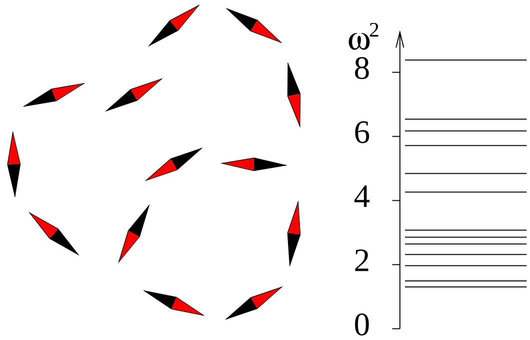


$E_1 = -25.64273$ (1000 mal) $\omega_1^2 = 1.94765$

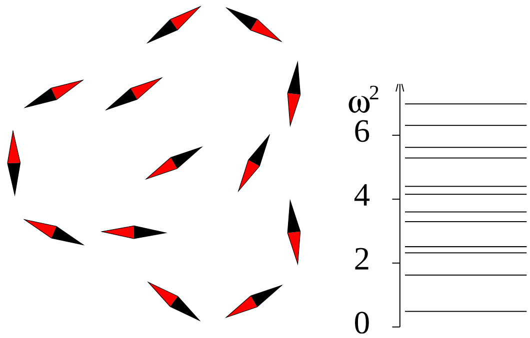
Bienenwaben-Gitter (2,1)



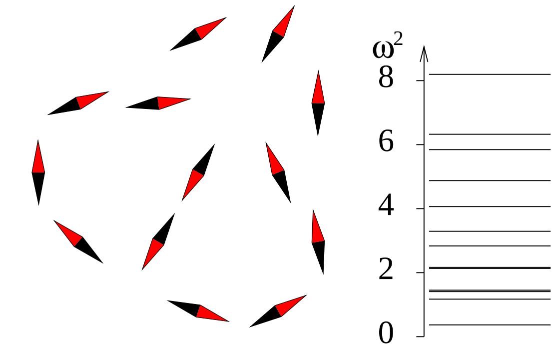
Anzahl Gitterpunkte: 13, Gefundene Energie-Niveaus: 4, Läufe: 1000



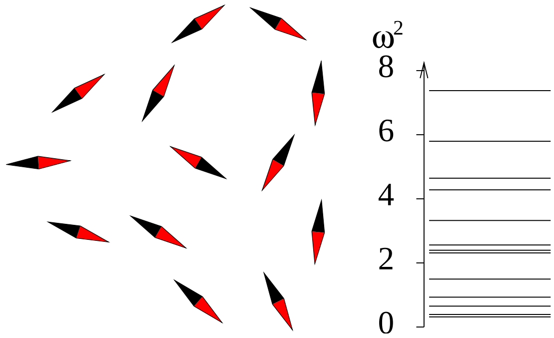
$E_1 = -25.78727$ (674 mal) $\omega_1^2 = 1.30443$



$E_2 = -24.54768$ (301 mal) $\omega_1^2 = 0.48642$

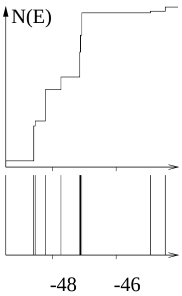


$E_3 = -22.06712$ (24 mal) $\omega_1^2 = 0.36850$

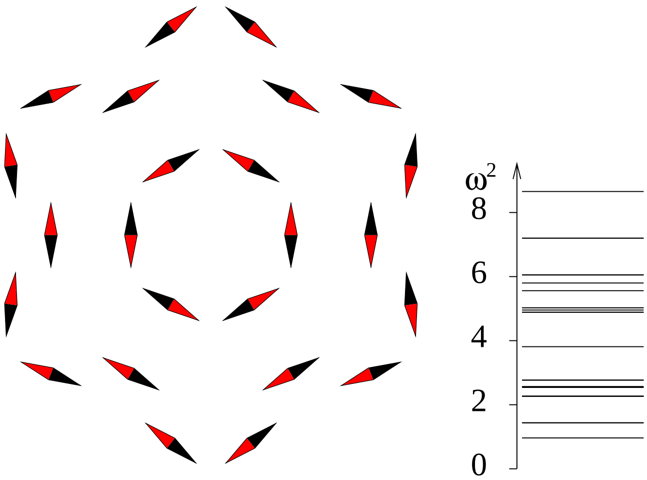


$E_4 = -18.23694$ (1 mal) $\omega_1^2 = 0.31455$

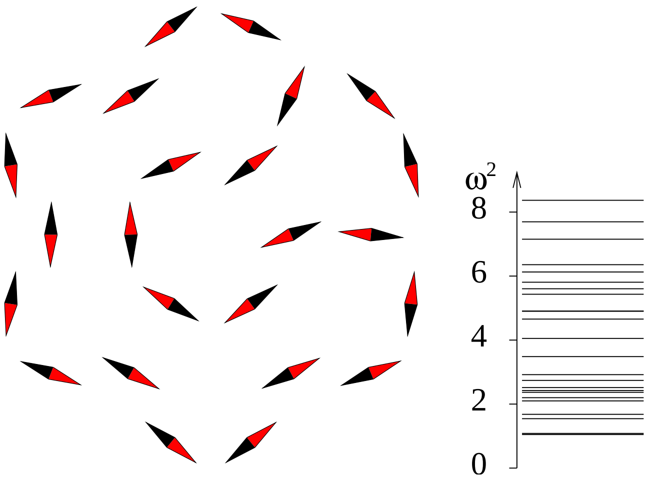
Bienenwaben-Gitter (2,2)



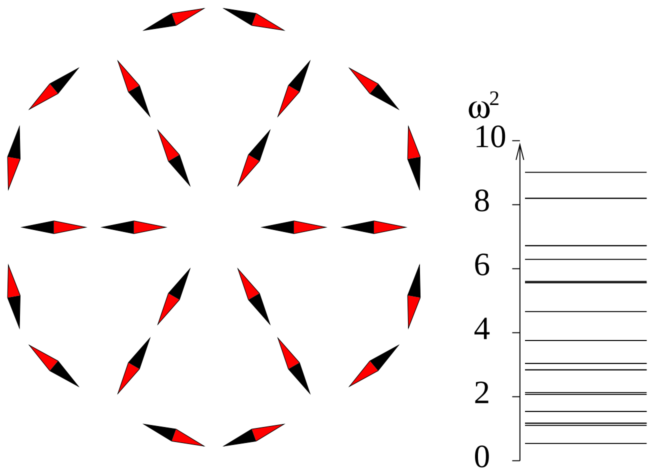
Anzahl Gitterpunkte: 24, Gefundene Energie-Niveaus: 10, Läufe: 1000



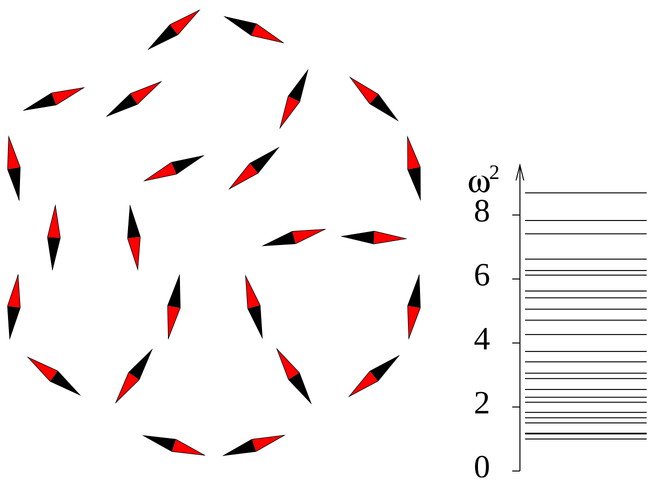
$E_1 = -49.45840$ (39 mal) $\omega_1^2 = 0.96527$



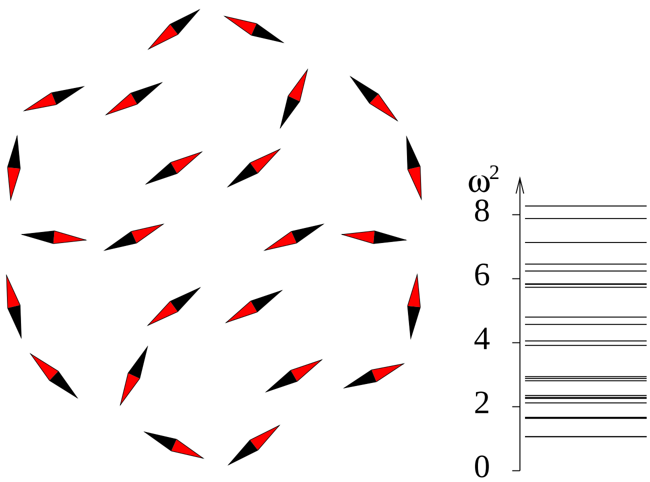
$E_2 = -48.58186$ (218 mal) $\omega_1^2 = 1.04735$



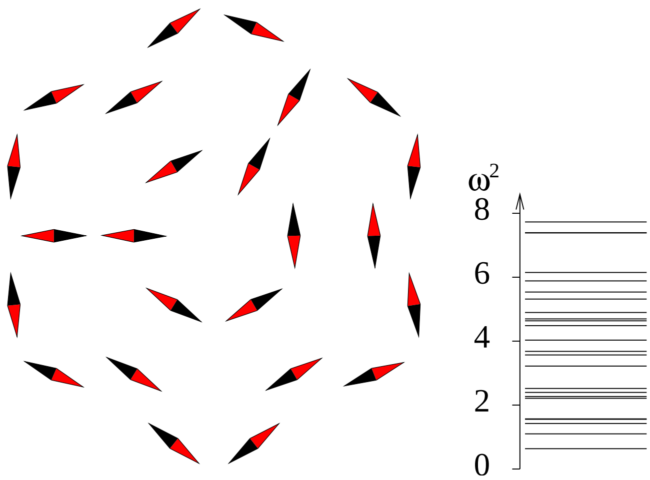
$E_3 = -48.53678$ (31 mal) $\omega_1^2 = 0.54178$



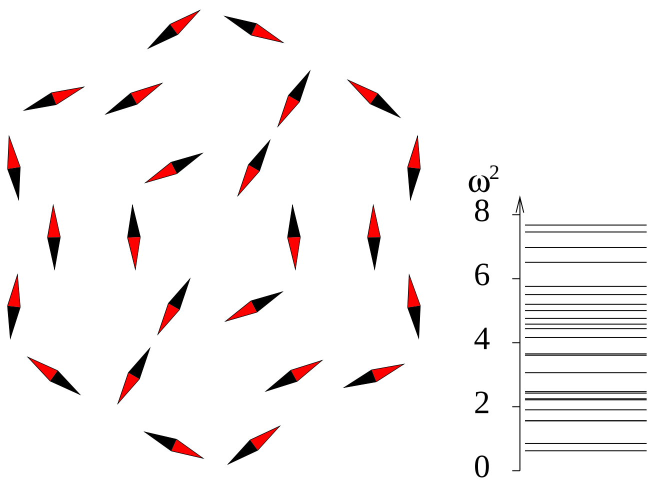
$E_4 = -48.21918$ (196 mal) $\omega_1^2 = 1.00172$



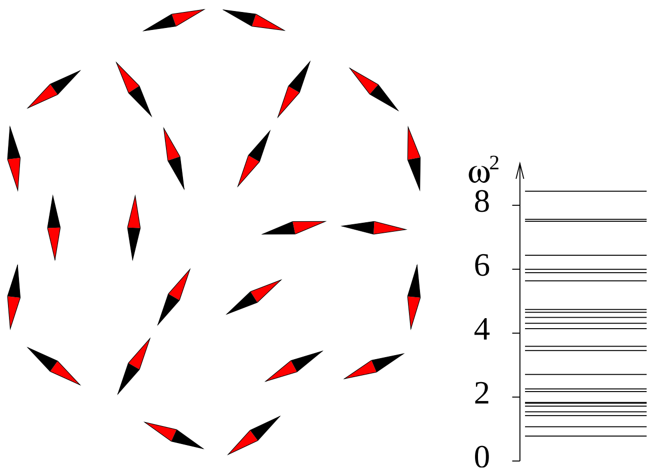
$E_5 = -47.72740$ (79 mal) $\omega_1^2 = 1.06244$



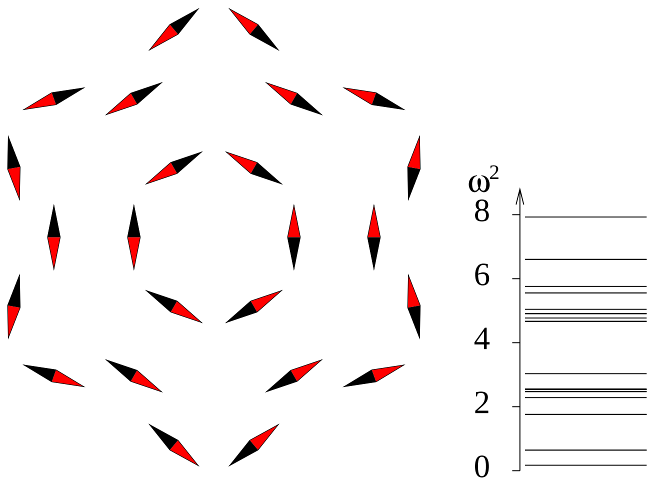
$E_6 = -47.13873$ (156 mal) $\omega_1^2 = 0.63428$



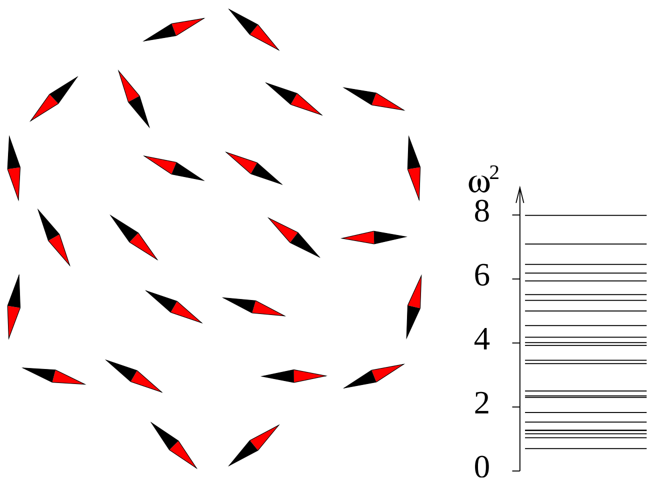
$E_7 = -47.11629$ (105 mal) $\omega_1^2 = 0.62444$



$E_8 = -47.07422$ (140 mal) $\omega_1^2 = 0.77938$

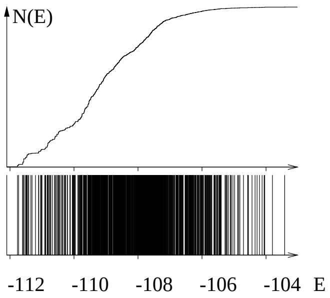


$E_9 = -44.92639$ (10 mal) $\omega_1^2 = 0.17190$

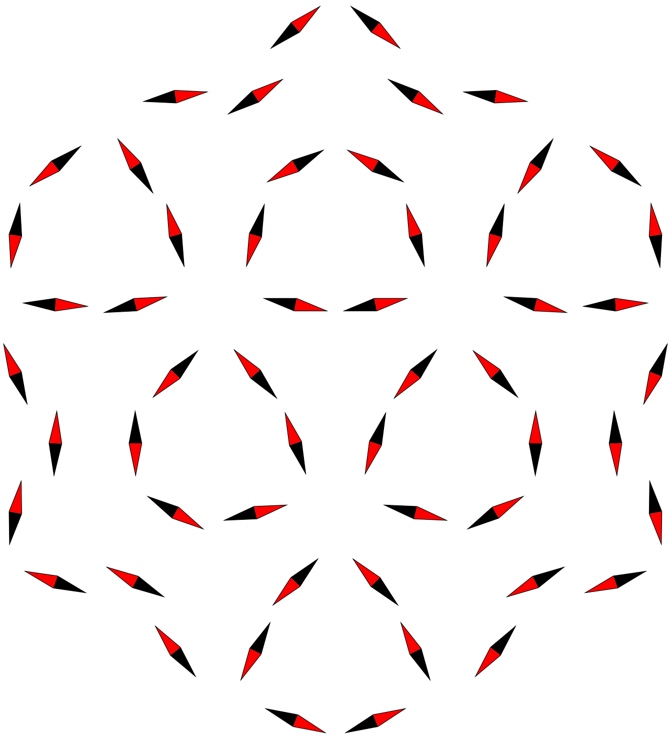


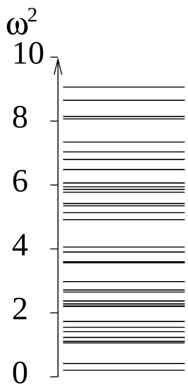
$E_{10} = -44.46211$ (26 mal) $\omega_1^2 = 0.70166$

Bienenwaben-Gitter (3,3)

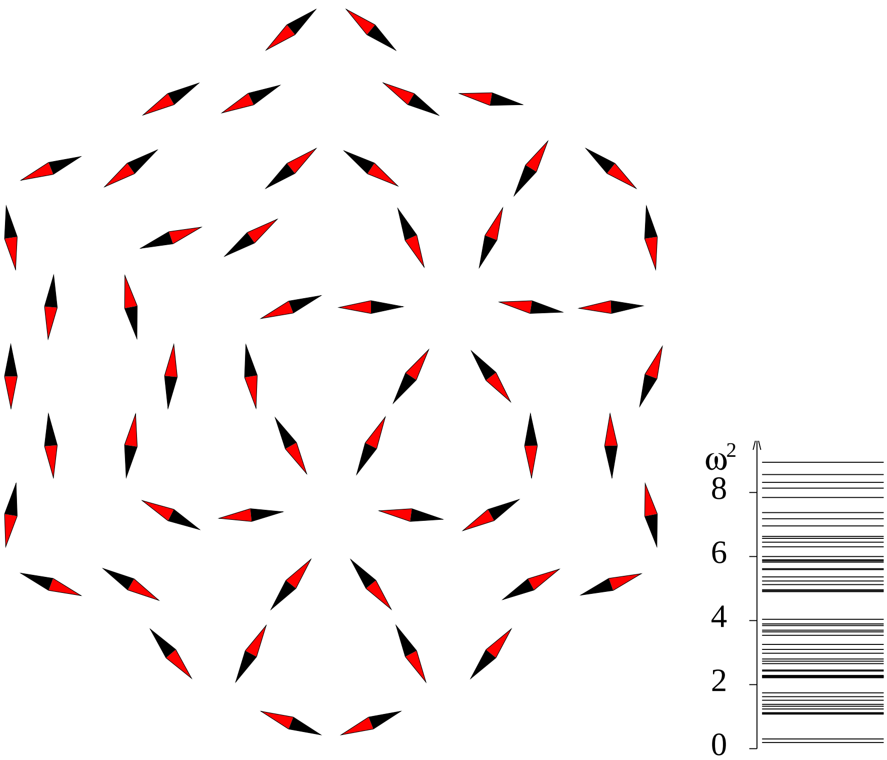


Anzahl Gitterpunkte: 54, Gefundene Energie-Niveaus: 955, Läufe: 3000

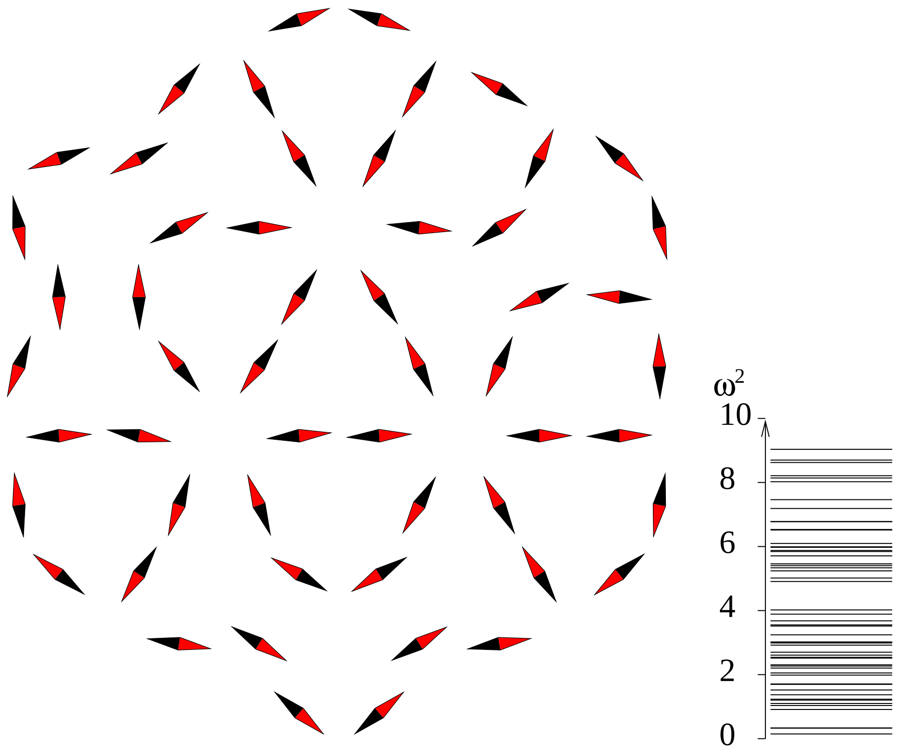




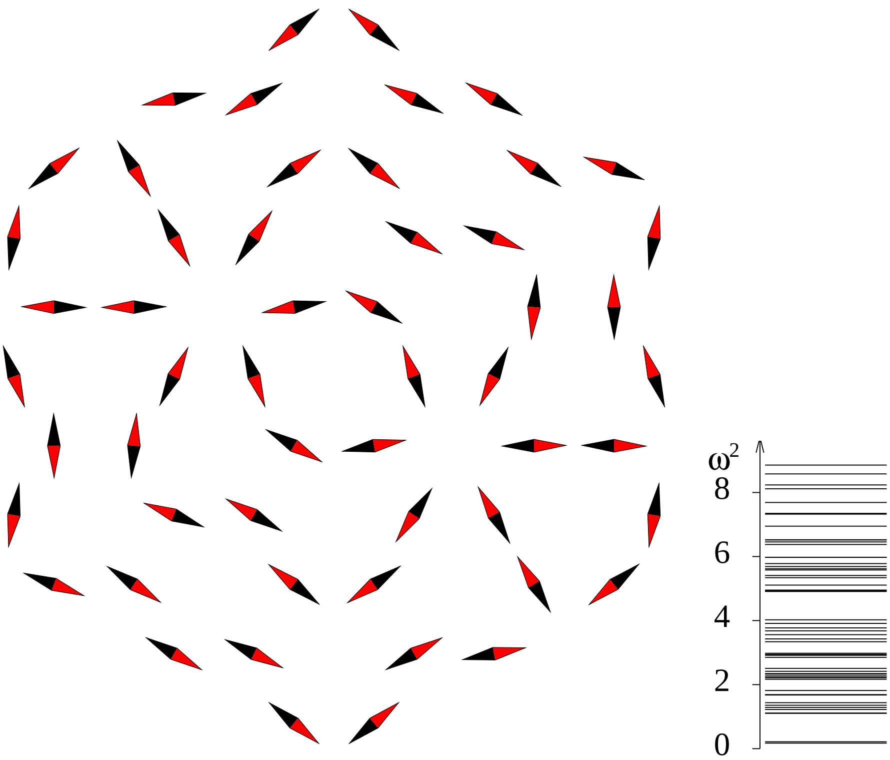
$E_1 = -112.10026$ (6 mal) $\omega_1^2 = 0.20251$



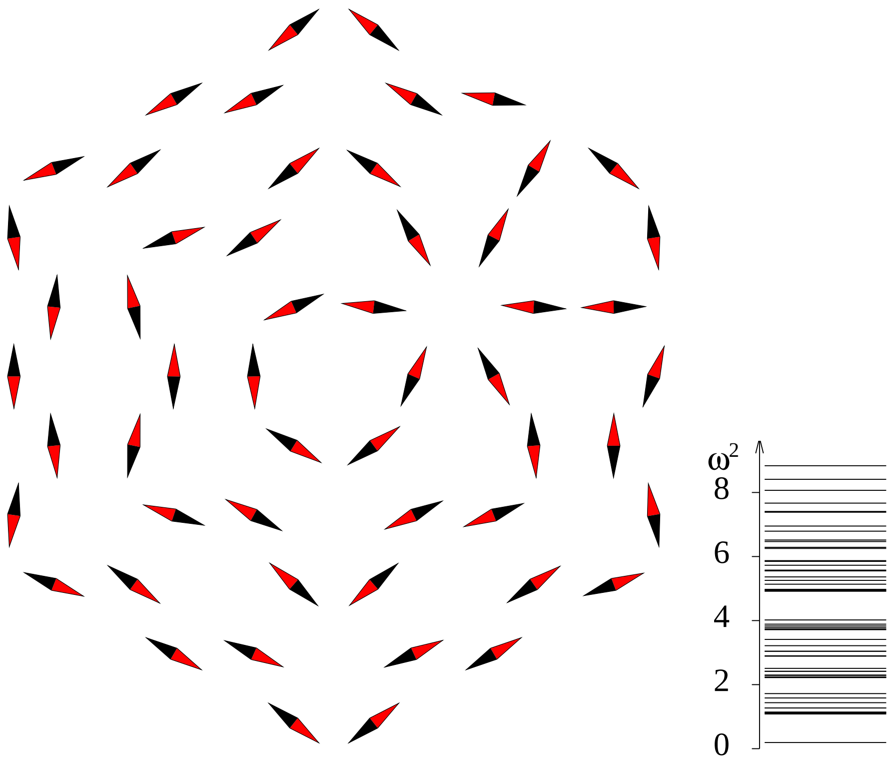
$E_2 = -111.76625$ (26 mal) $\omega_1^2 = 0.19078$



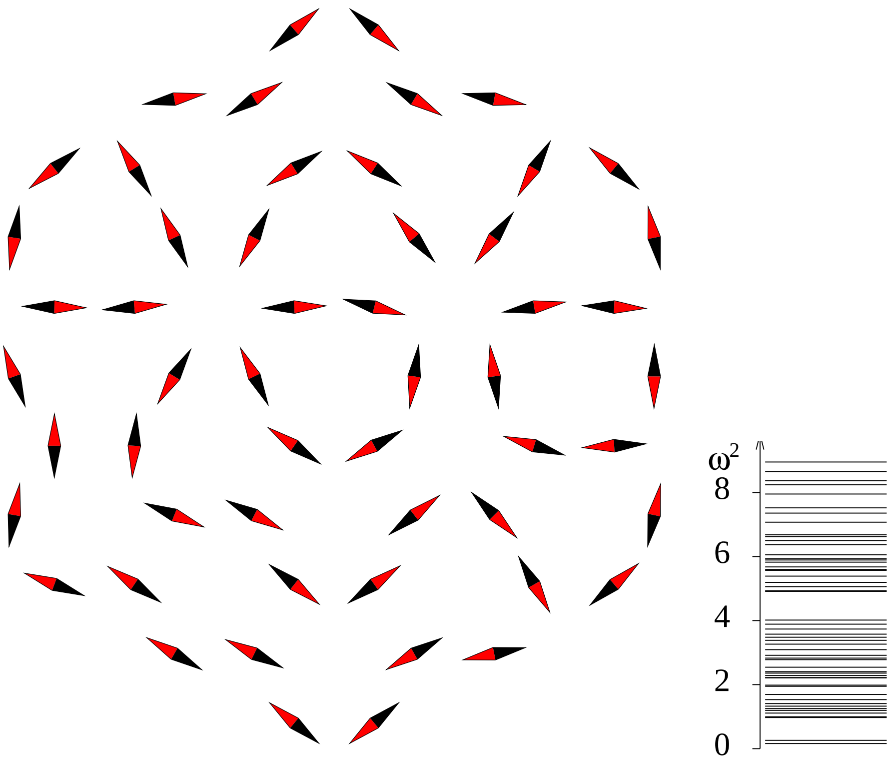
$E_3 = -111.72910$ (19 mal) $\omega_1^2 = 0.14895$



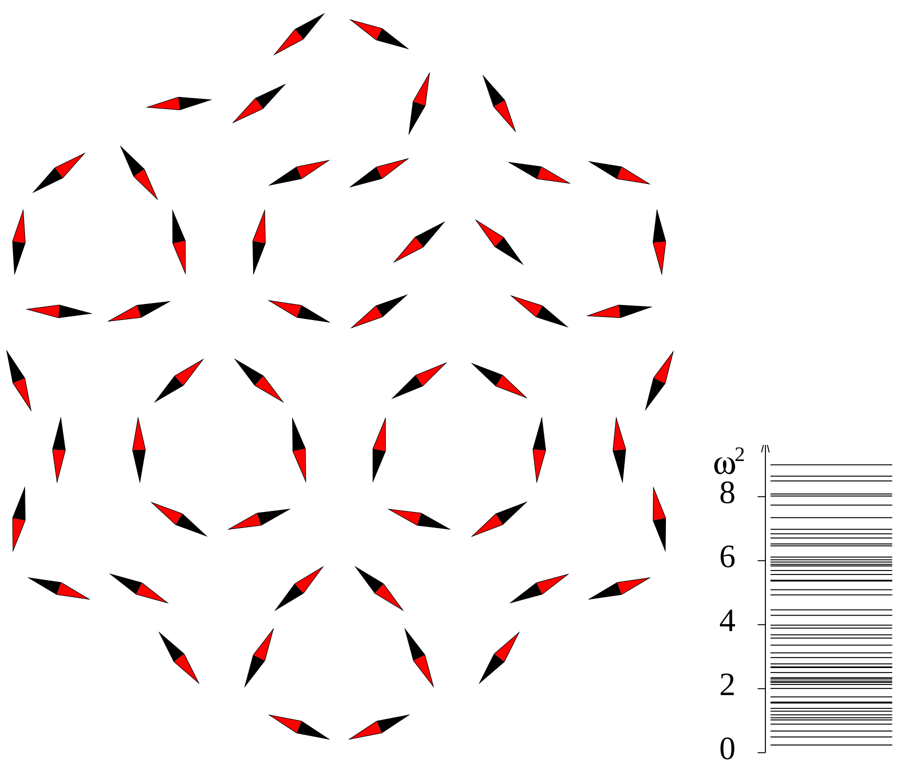
$E_4 = -111.60728$ (12 mal) $\omega_1^2 = 0.17289$



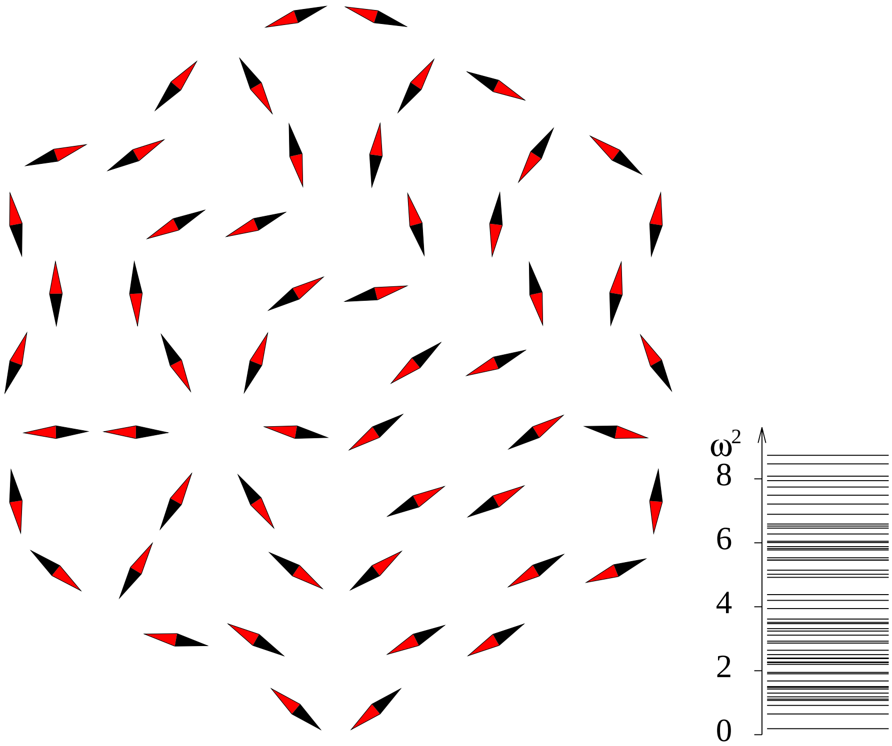
$E_5 = -111.59844$ (32 mal) $\omega_1^2 = 0.19343$



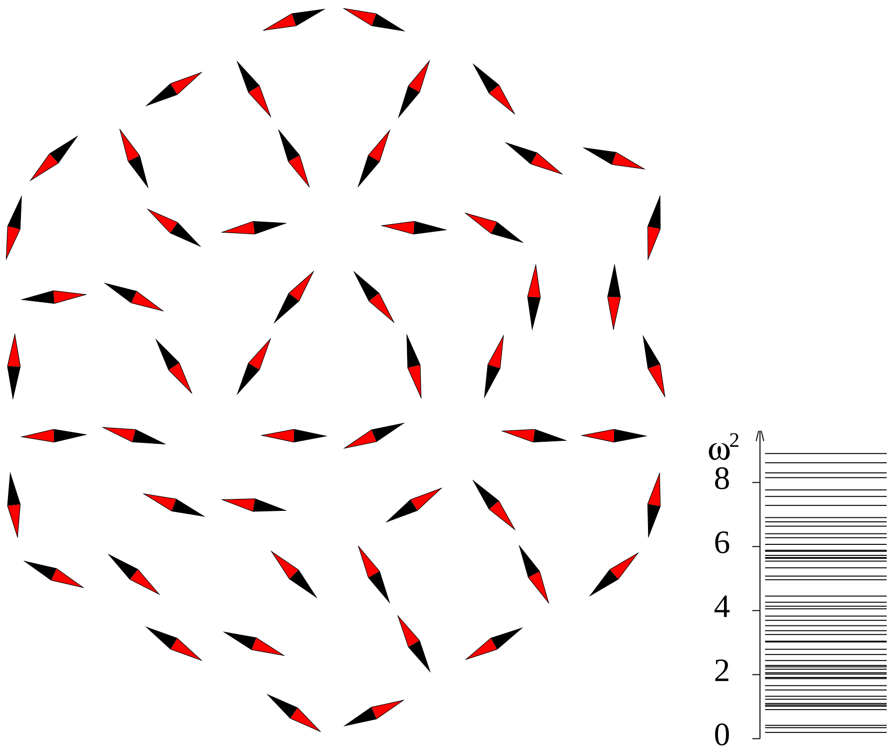
$E_6 = -111.57054$ (56 mal) $\omega_1^2 = 0.16154$



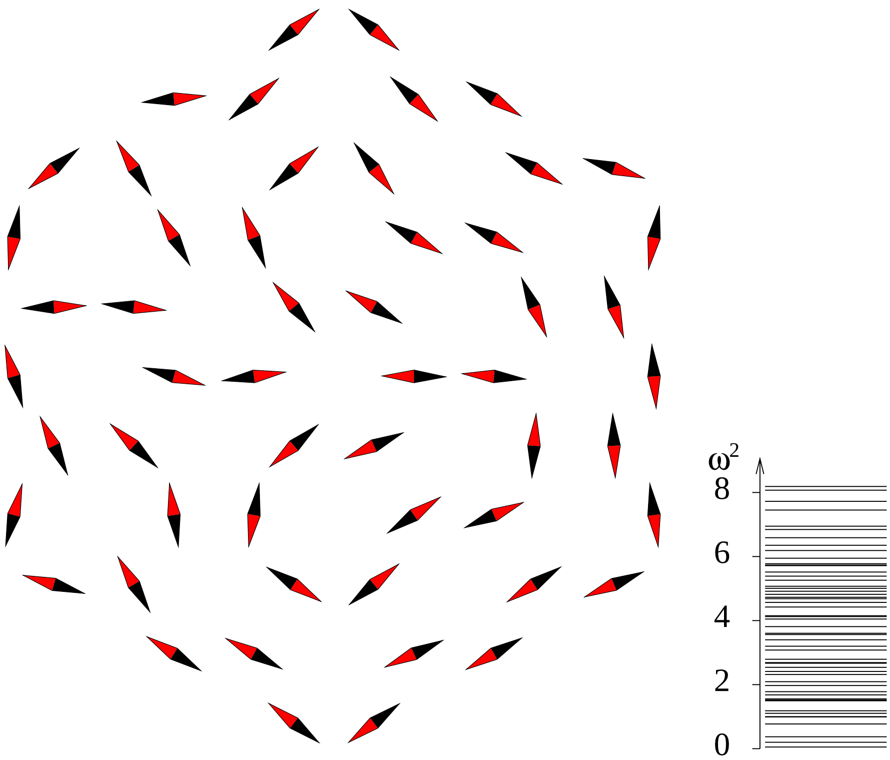
$E_8 = -111.51677$ (24 mal) $\omega_1^2 = 0.23883$



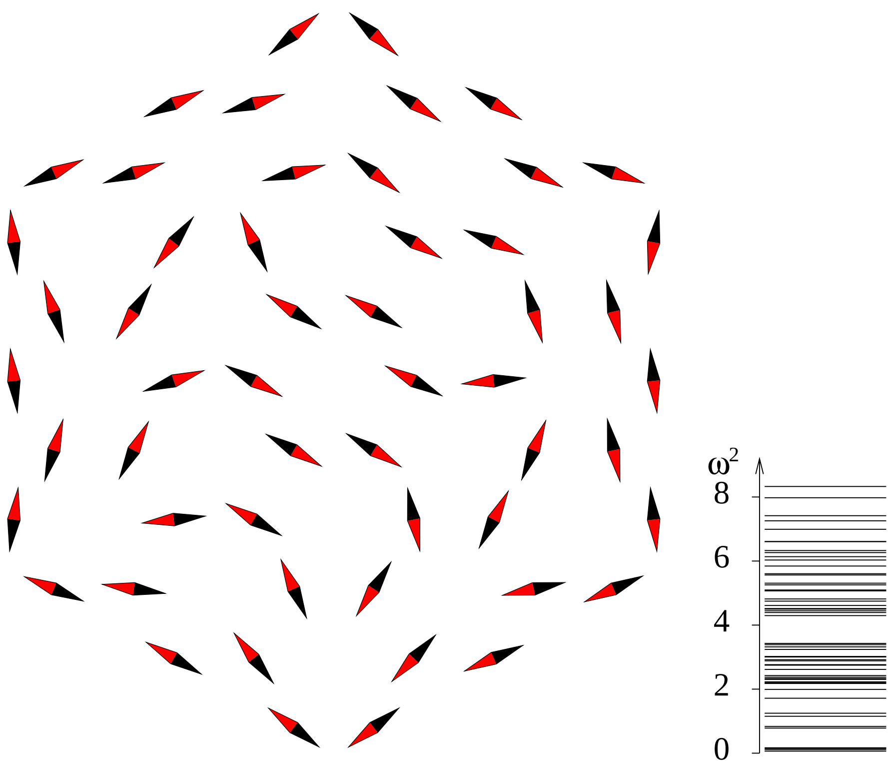
$E_{41} = -110.53563$ (26 mal) $\omega_1^2 = 0.18613$



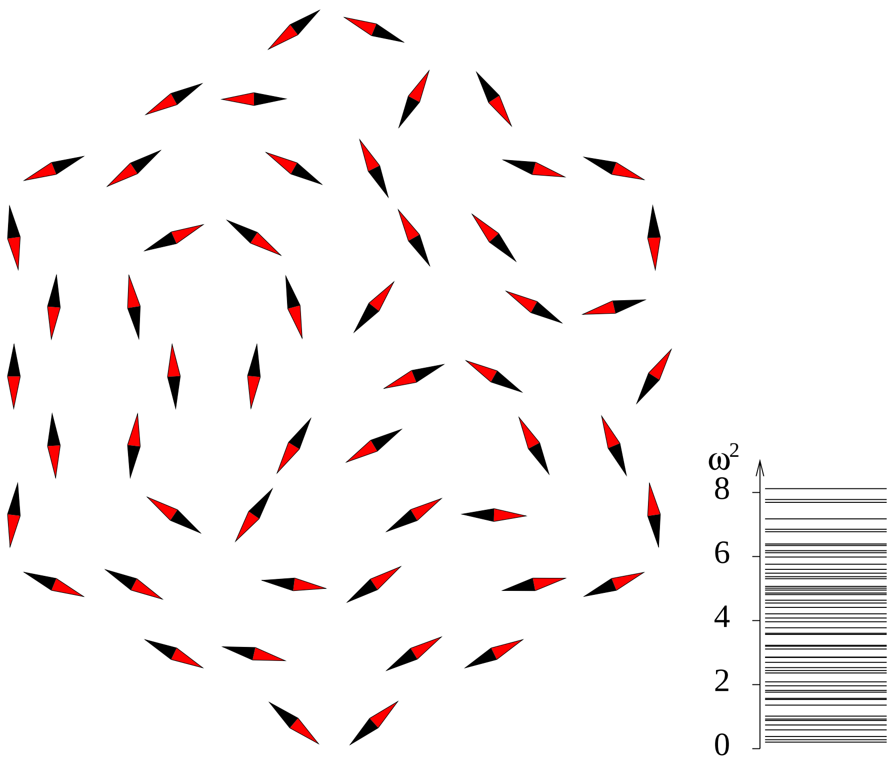
$E_{106} = -109.56812$ (25 mal) $\omega_1^2 = 0.19722$



$E_{953} = -104.04091$ (2 mal) $\omega_1^2 = 0.05002$

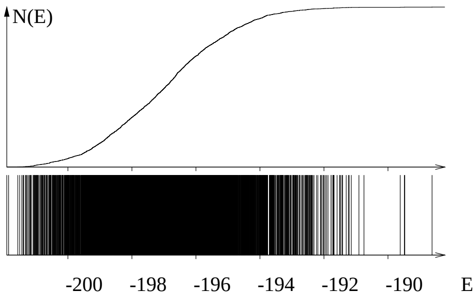


$E_{954} = -103.80057$ (1 mal) $\omega_1^2 = 0.06589$

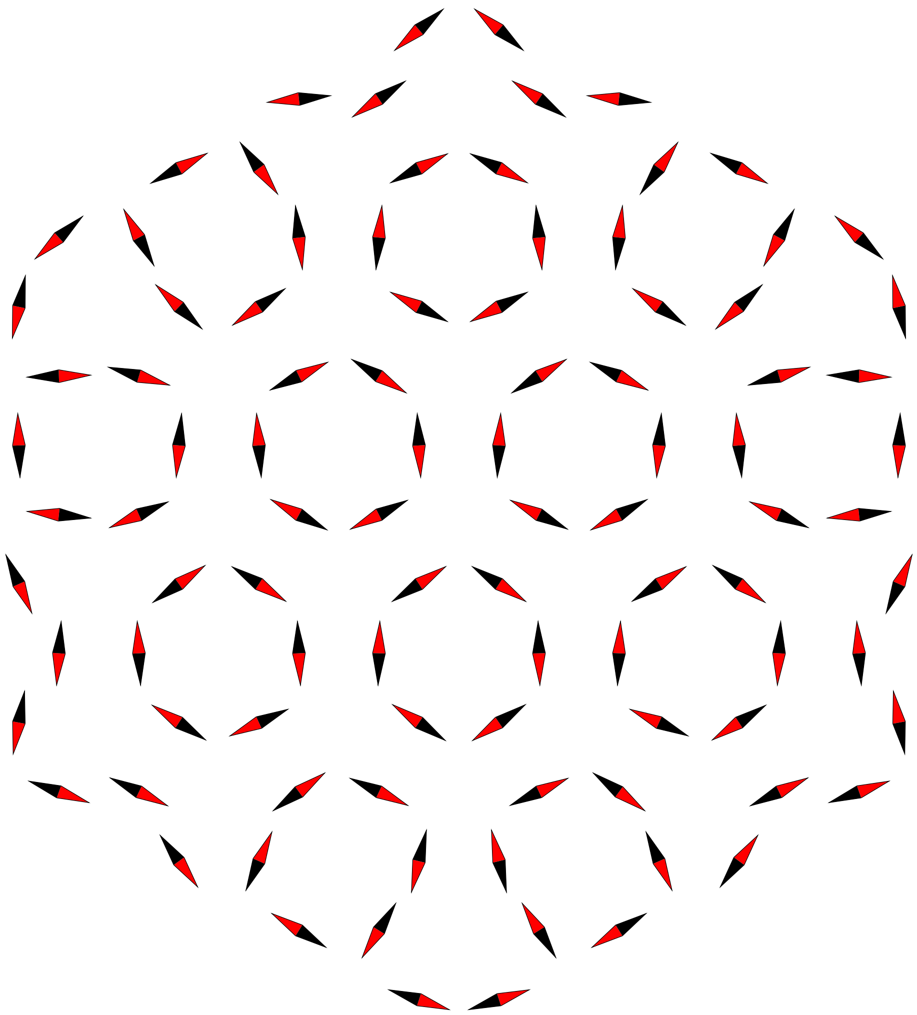


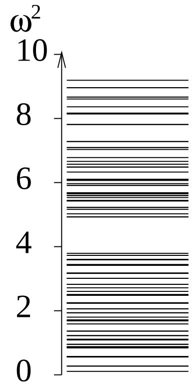
$E_{955} = -103.41843$ (1 mal) $\omega_1^2 = 0.20233$

Bienenwaben-Gitter (4,4)

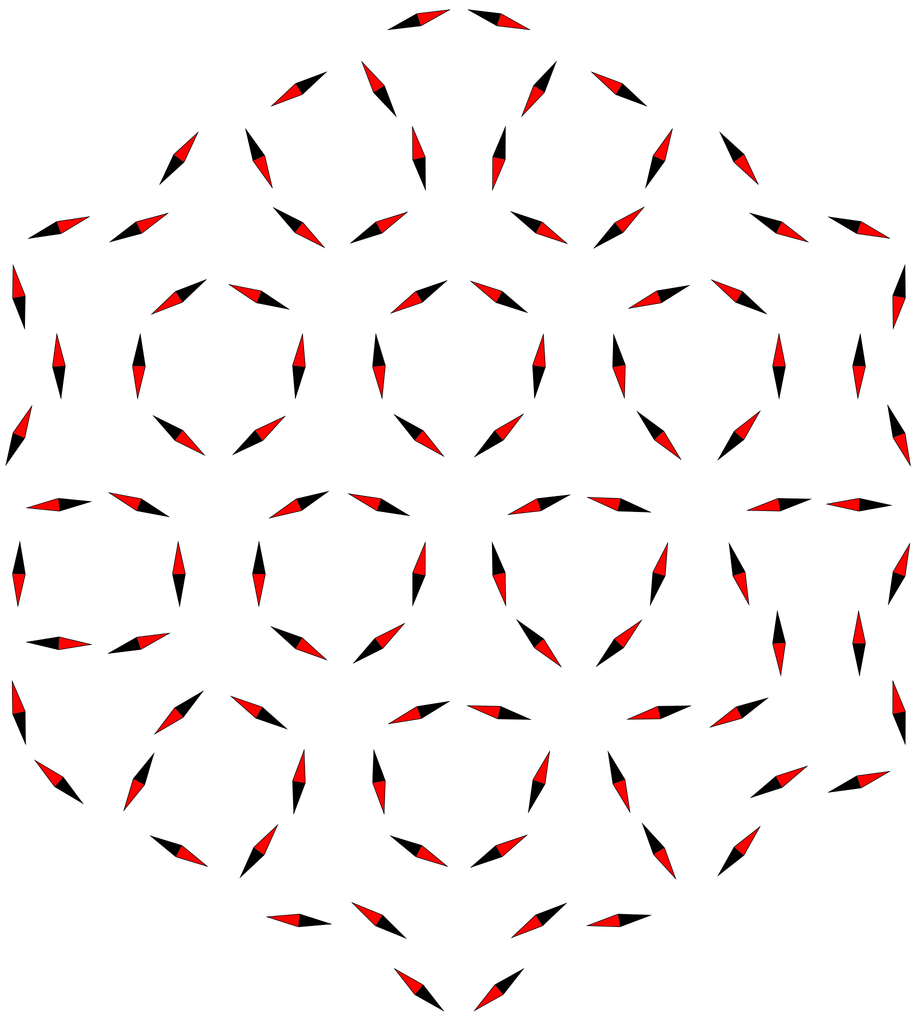


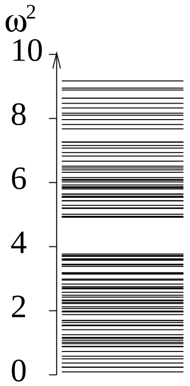
Anzahl Gitterpunkte: 96, Gefundene Energie-Niveaus: 2932, Läufe: 3000



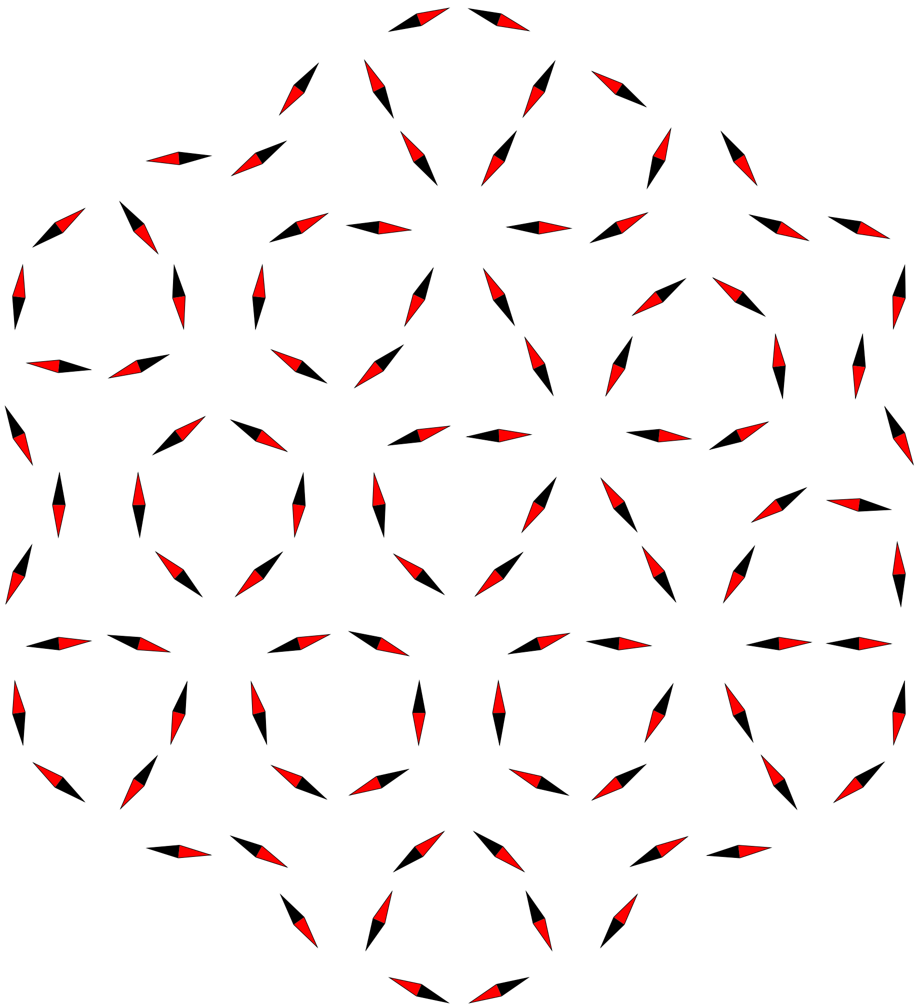


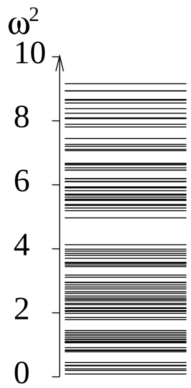
$E_1 = -201.90967$ (1 mal) $\omega_1^2 = 0.10625$



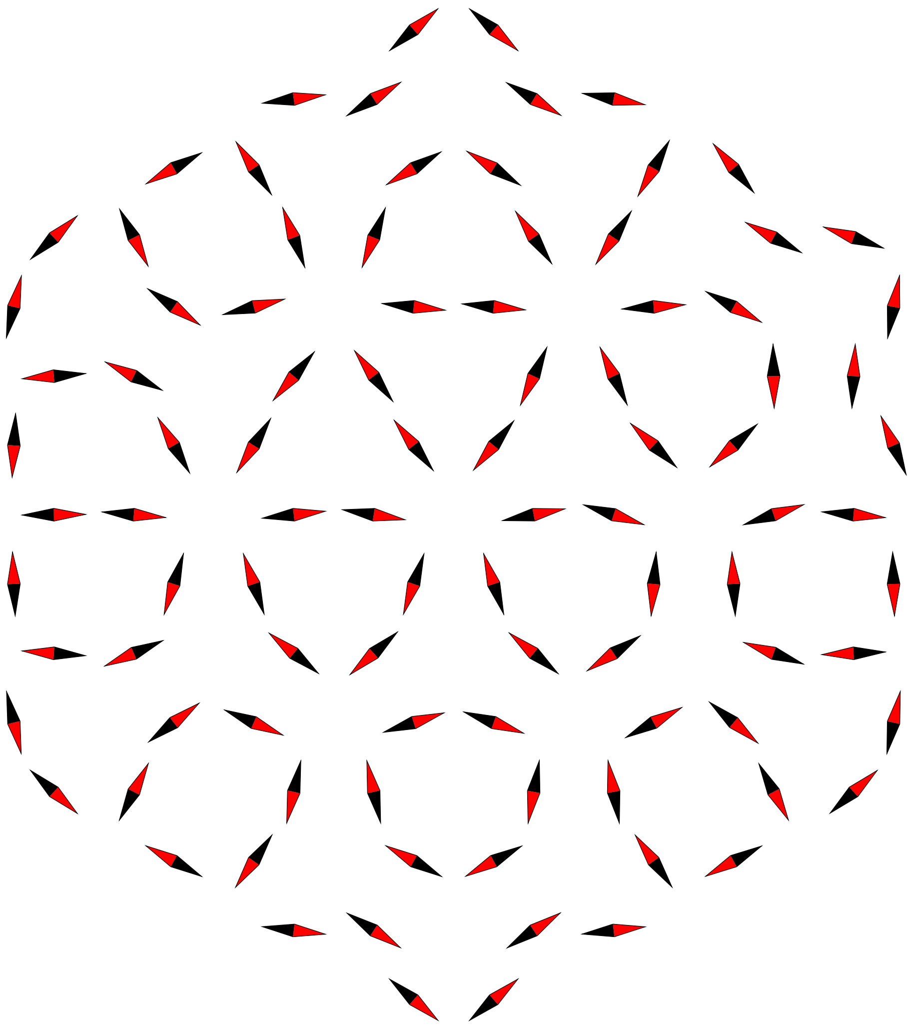


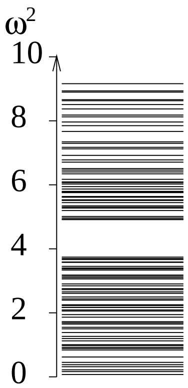
$E_2 = -201.85260$ (1 mal) $\omega_1^2 = 0.09361$



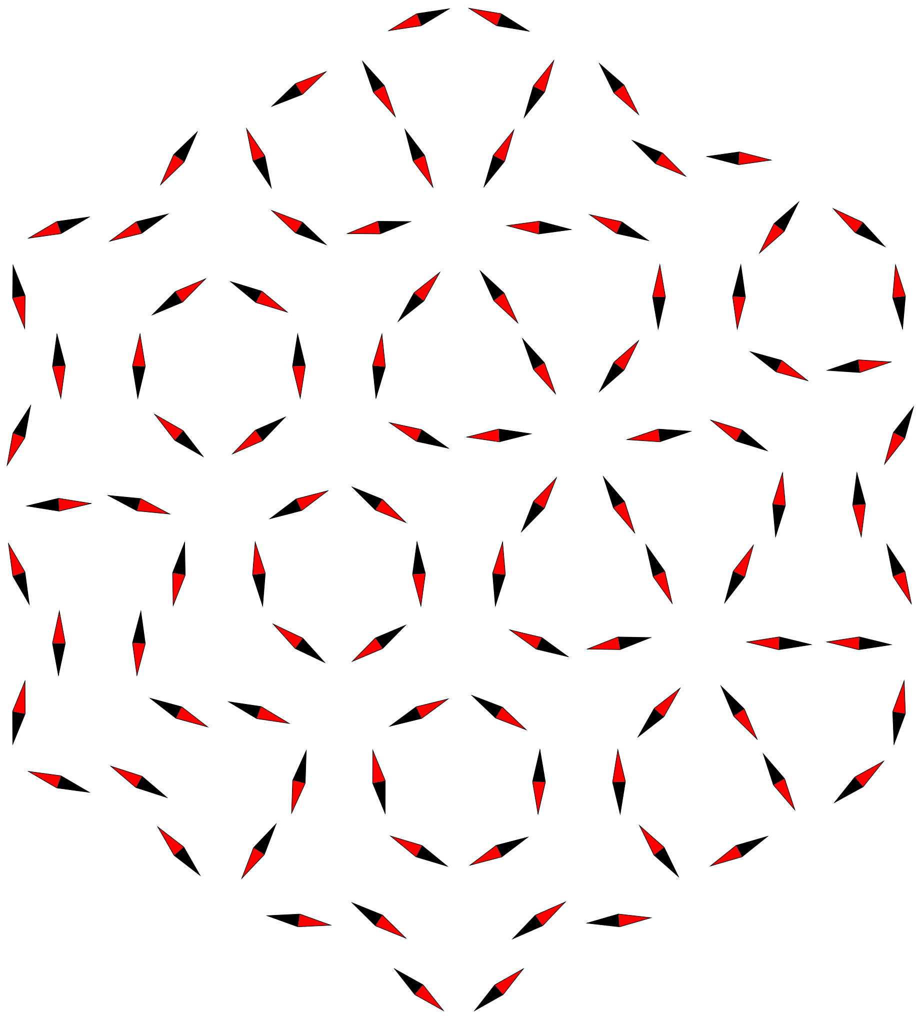


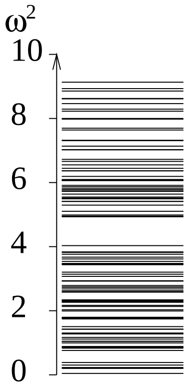
$E_3 = -201.56562$ (1 mal) $\omega_1^2 = 0.08747$



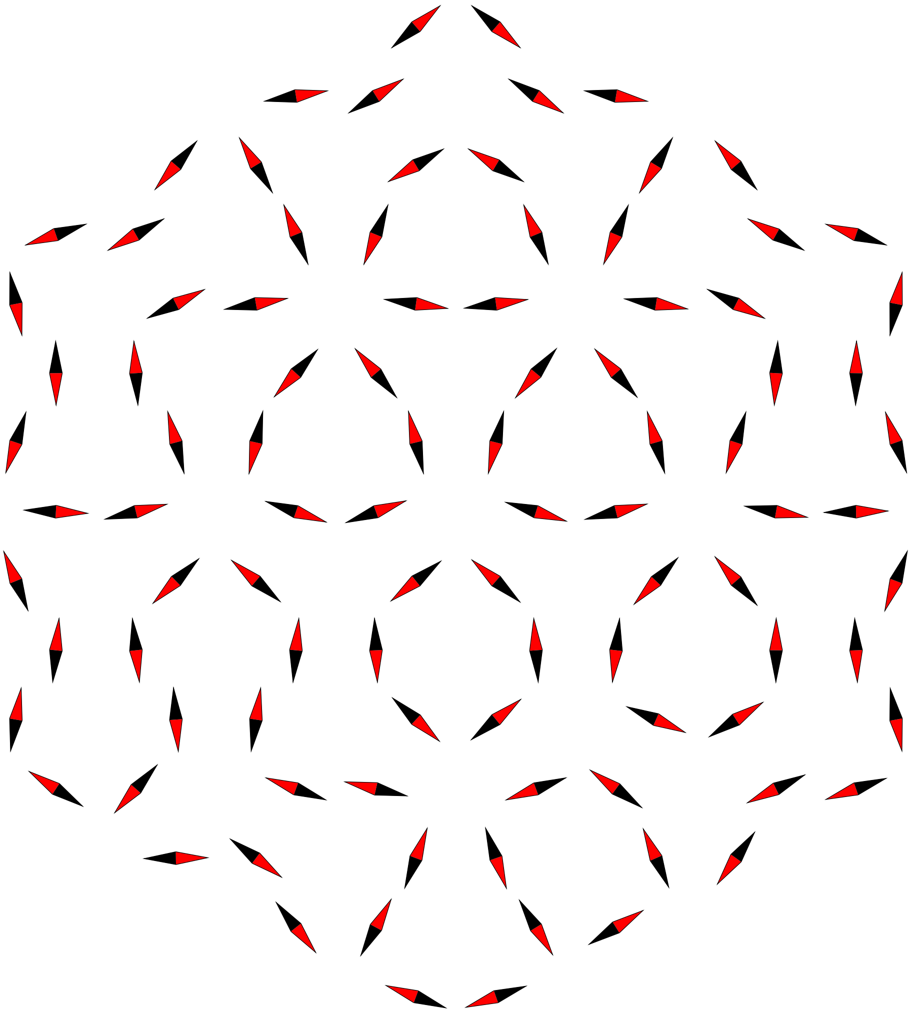


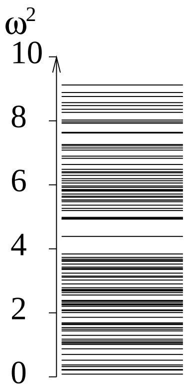
$E_4 = -201.50381$ (1 mal) $\omega_1^2 = 0.07158$



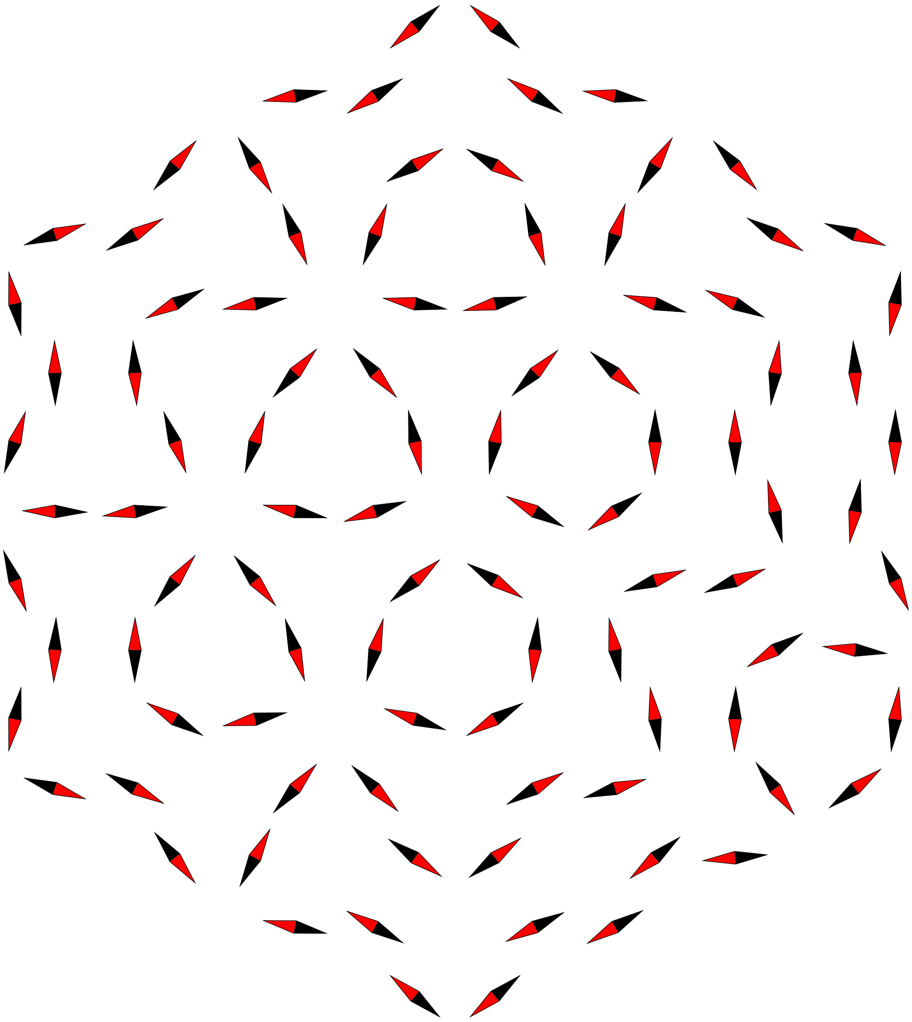


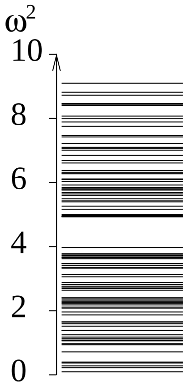
$E_5 = -201.43895$ (1 mal) $\omega_1^2 = 0.04381$



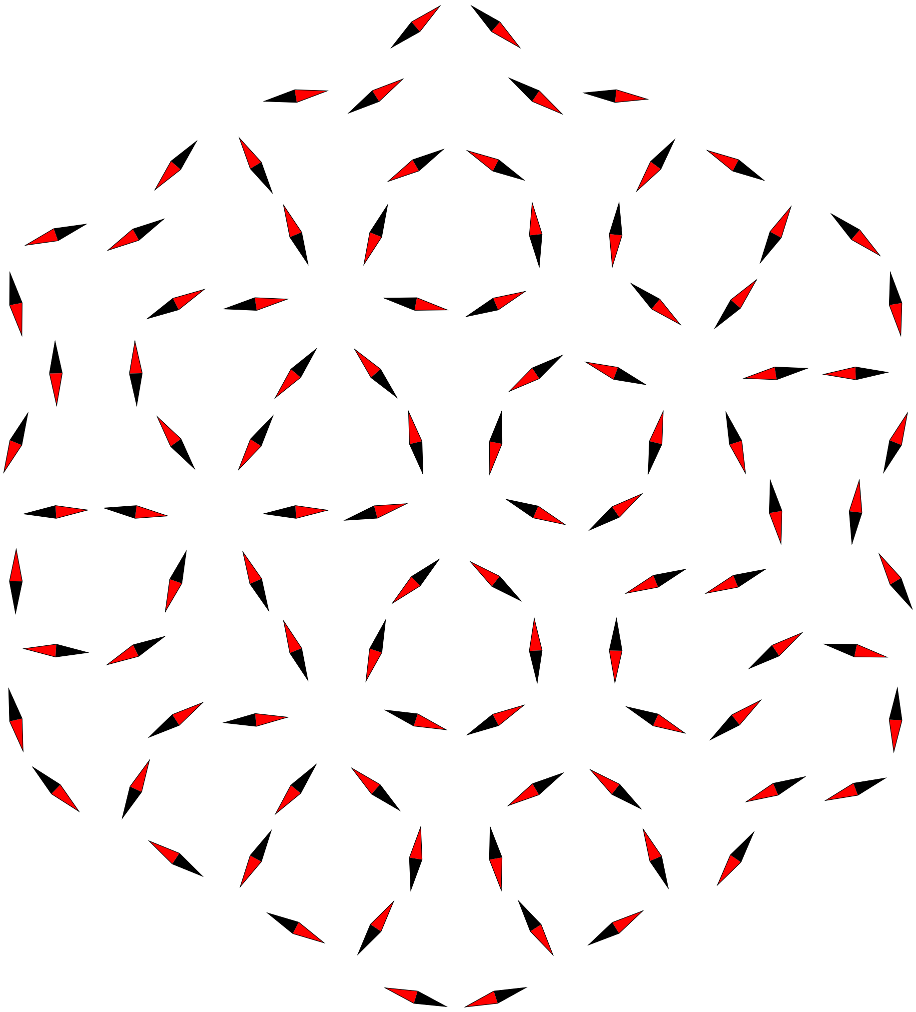


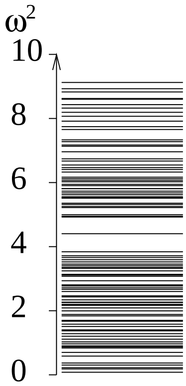
$E_6 = -201.39984$ (1 mal) $\omega_1^2 = 0.08595$



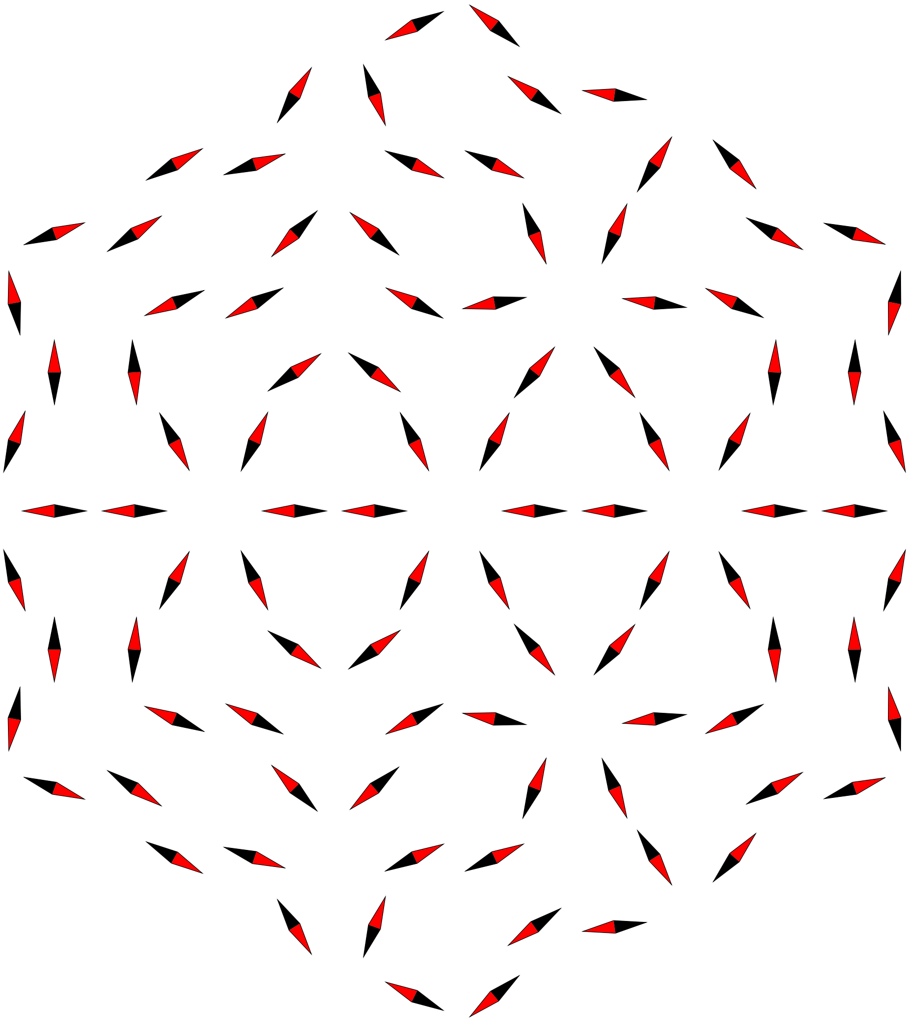


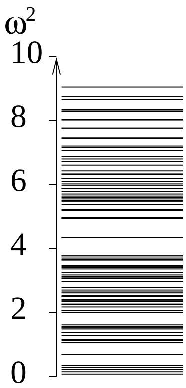
$E_{18} = -201.08951$ (3 mal) $\omega_1^2 = 0.09754$



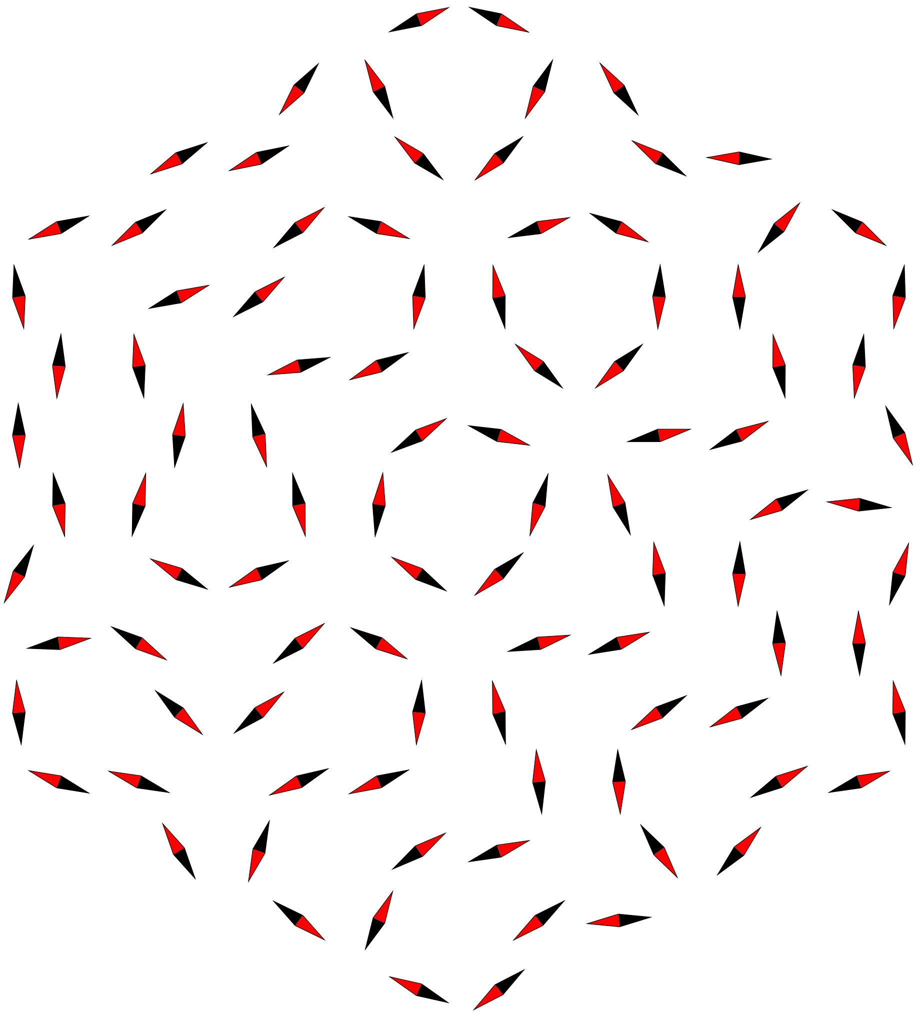


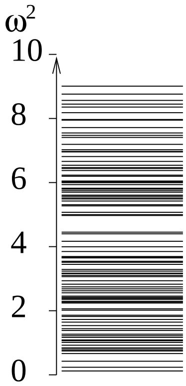
$E_{21} = -201.06328$ (3 mal) $\omega_1^2 = 0.07979$



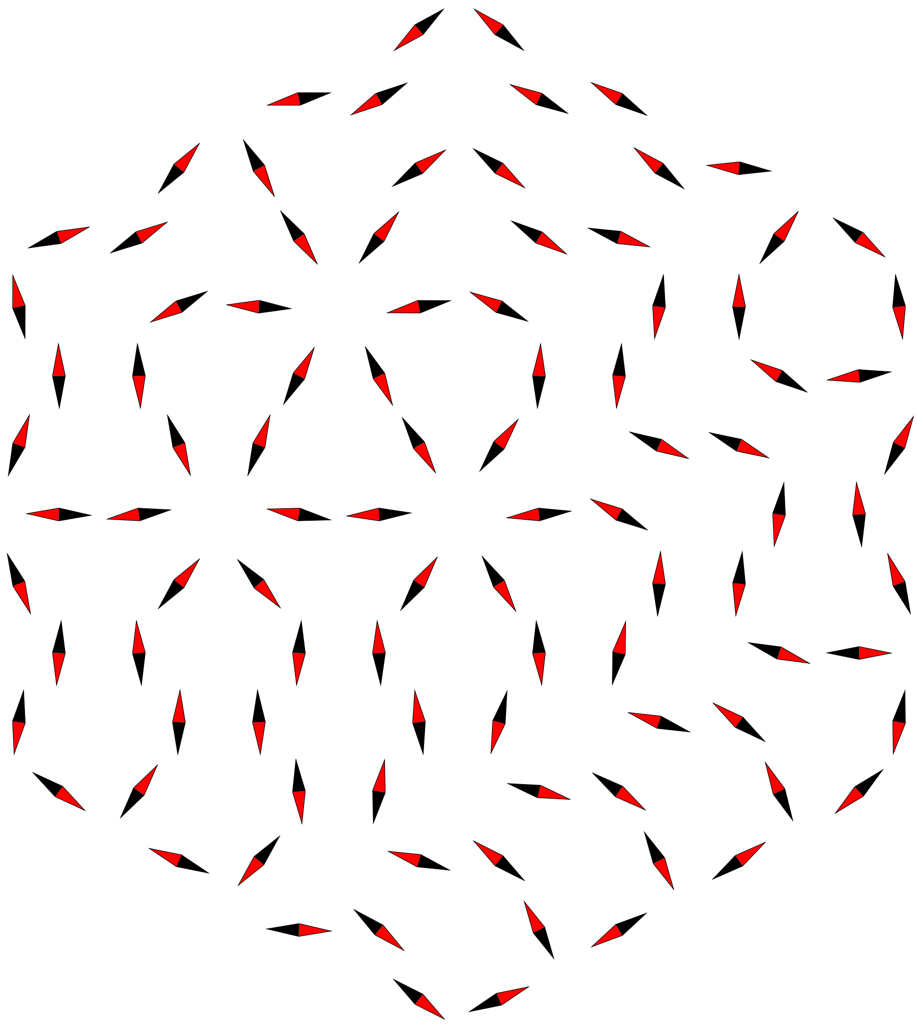


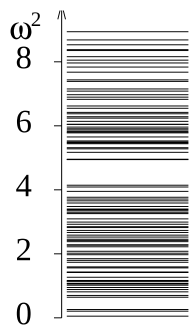
$E_{63} = -200.57582$ (3 mal) $\omega_1^2 = 0.07667$



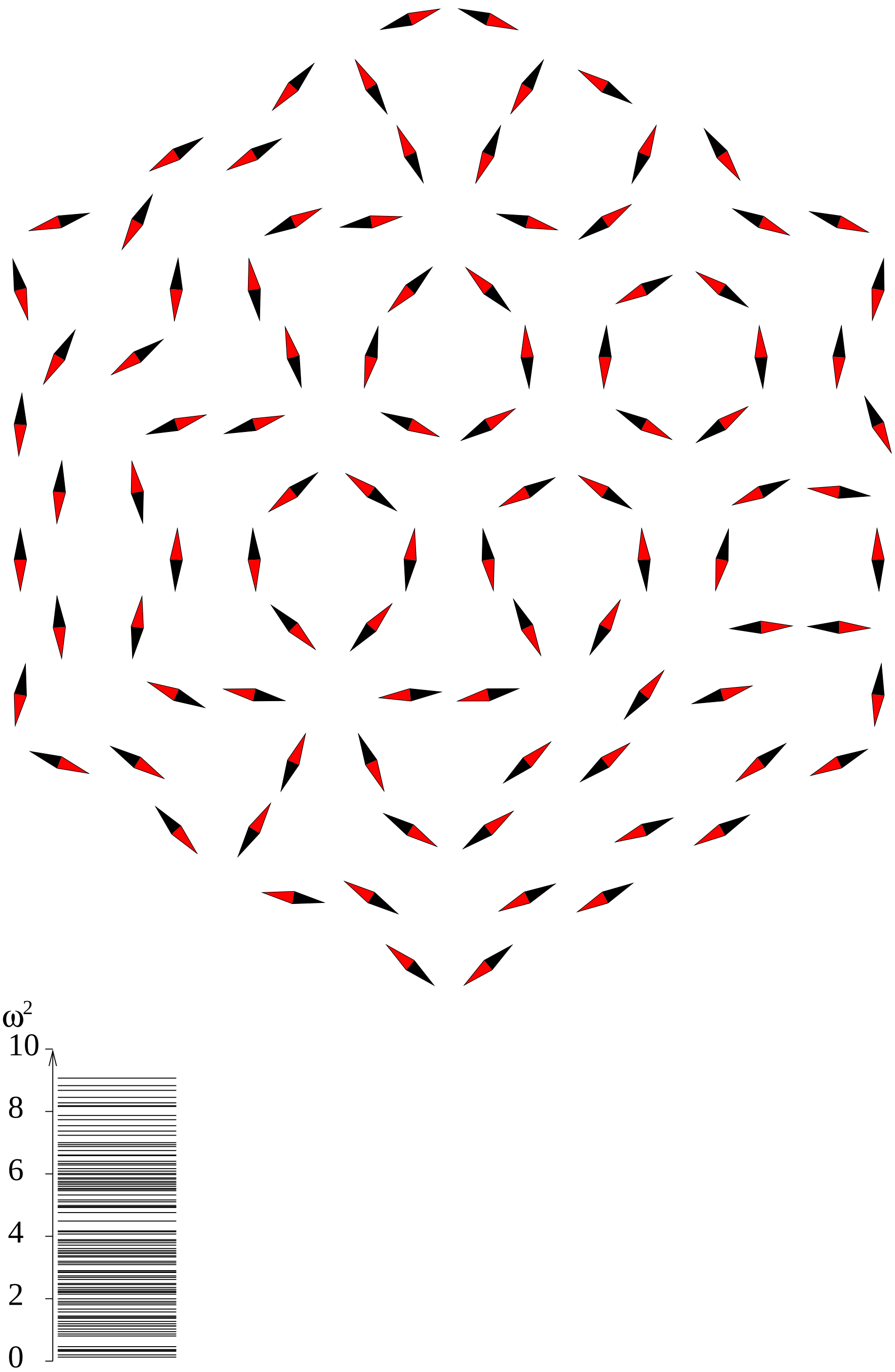


$E_{174} = -199.80658$ (3 mal) $\omega_1^2 = 0.11868$

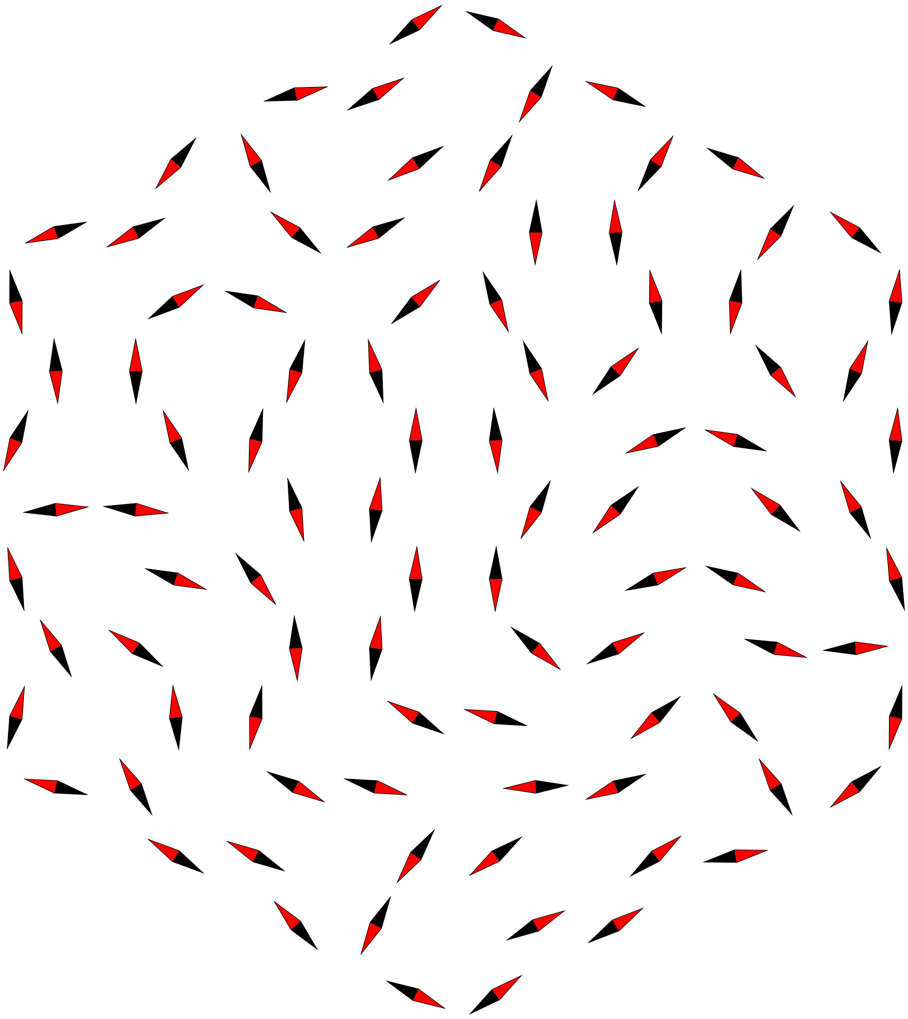




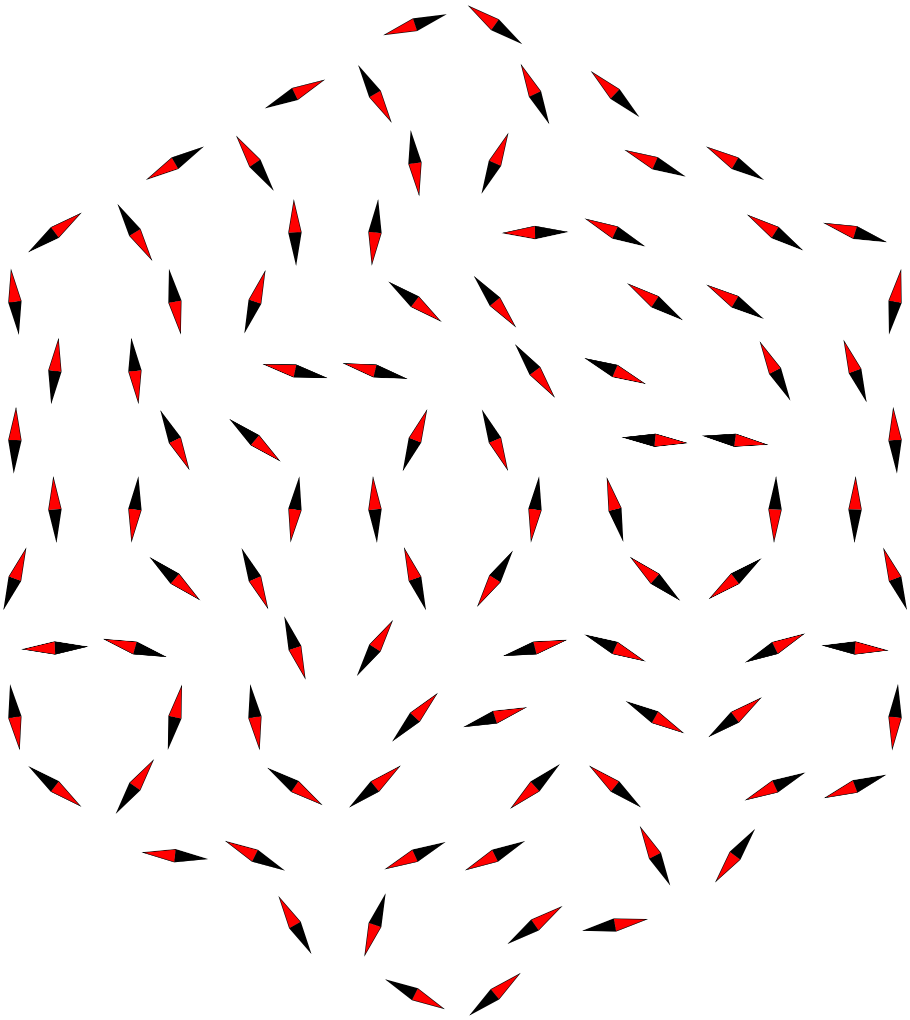
$E_{315} = -199.23634$ (3 mal) $\omega_1^2 = 0.05116$

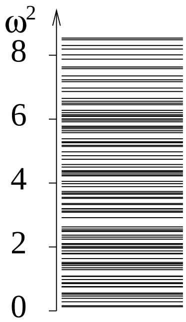


$E_{1087} = -197.56087$ (3 mal) $\omega_1^2 = 0.12621$

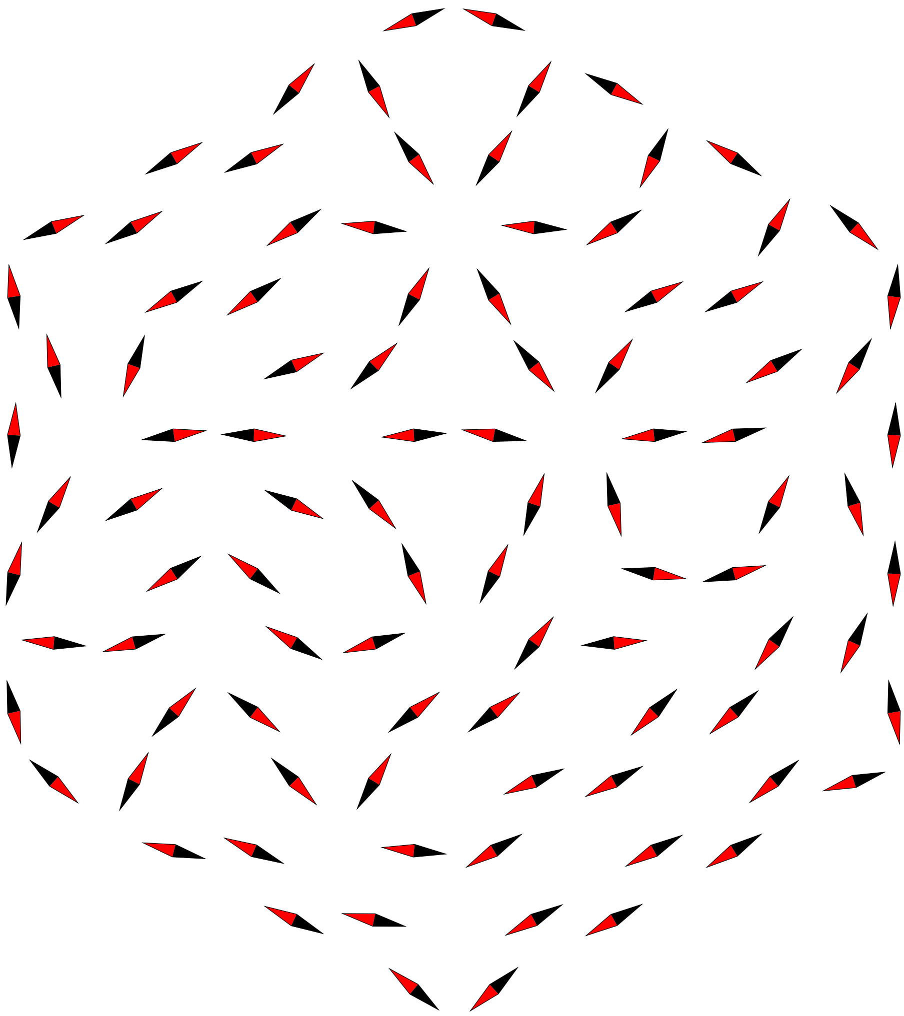


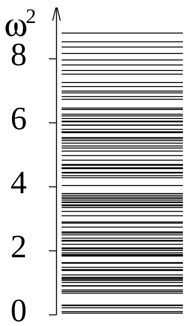
$E_{2930} = -189.48833$ (1 mal) $\omega_1^2 = 0.03655$





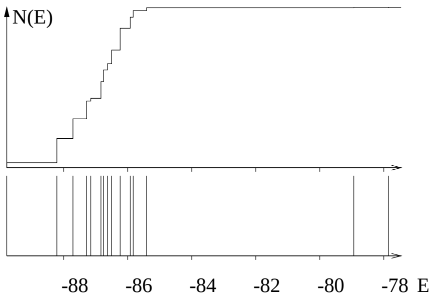
$E_{2931} = -189.47513$ (1 mal) $\omega_1^2 = 0.12827$



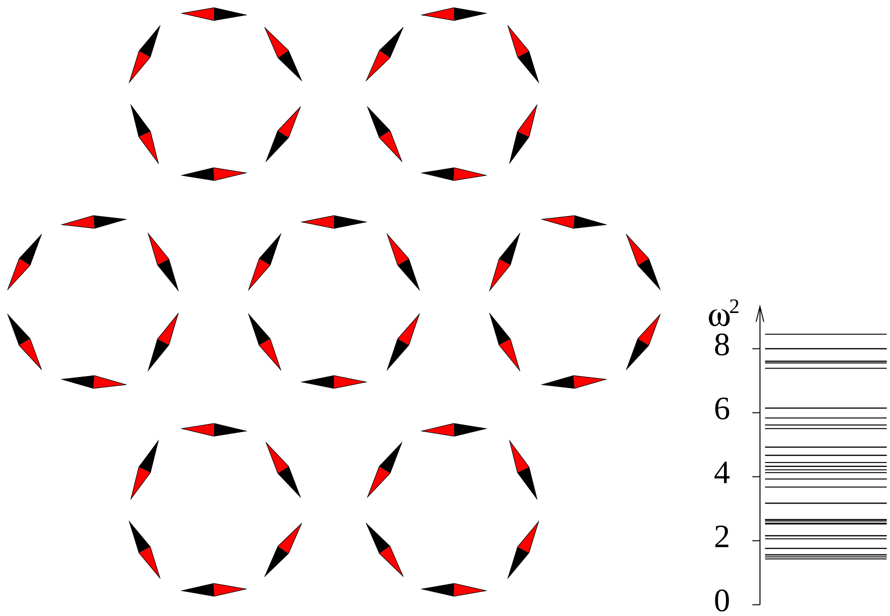


$E_{2932} = -188.62305$ (1 mal) $\omega_1^2 = 0.05161$

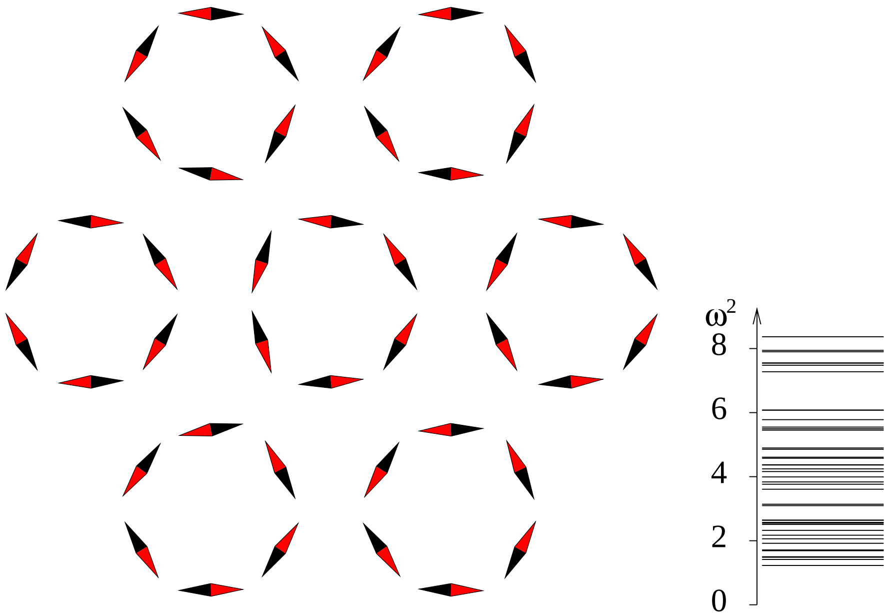
Bienenwaben-Gitter <1,1>



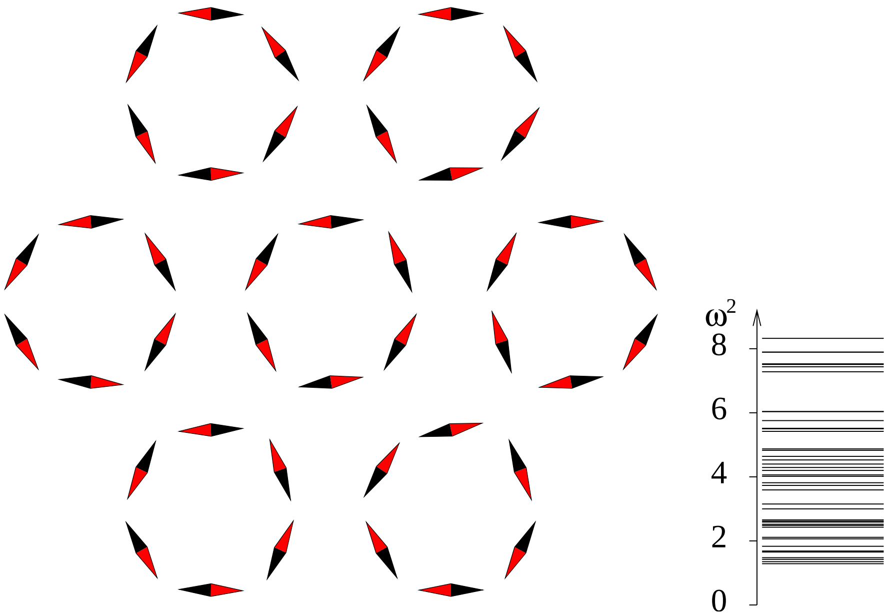
Anzahl Gitterpunkte: 42, Gefundene Energie-Niveaus: 15, Läufe: 1000



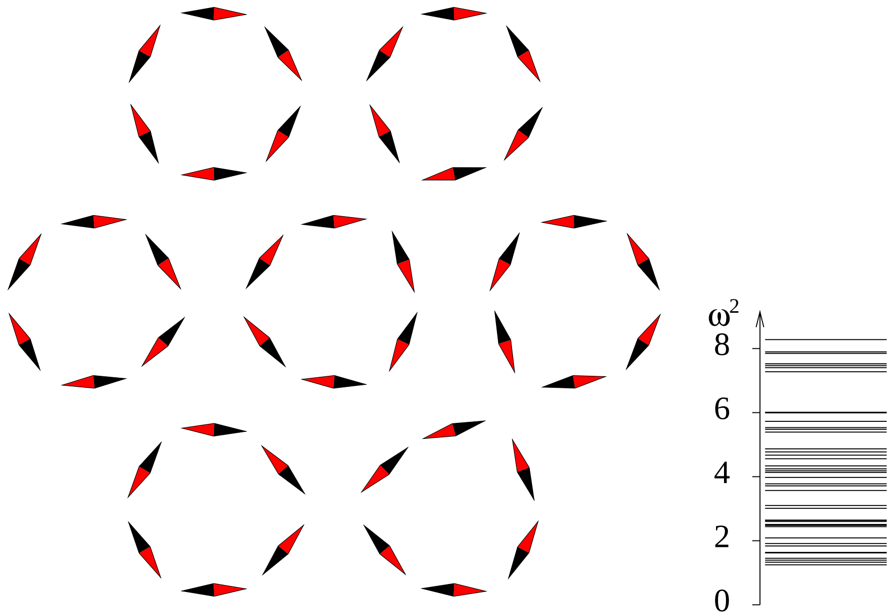
$E_1 = -89.77881$ (31 mal) $\omega_1^2 = 1.43318$



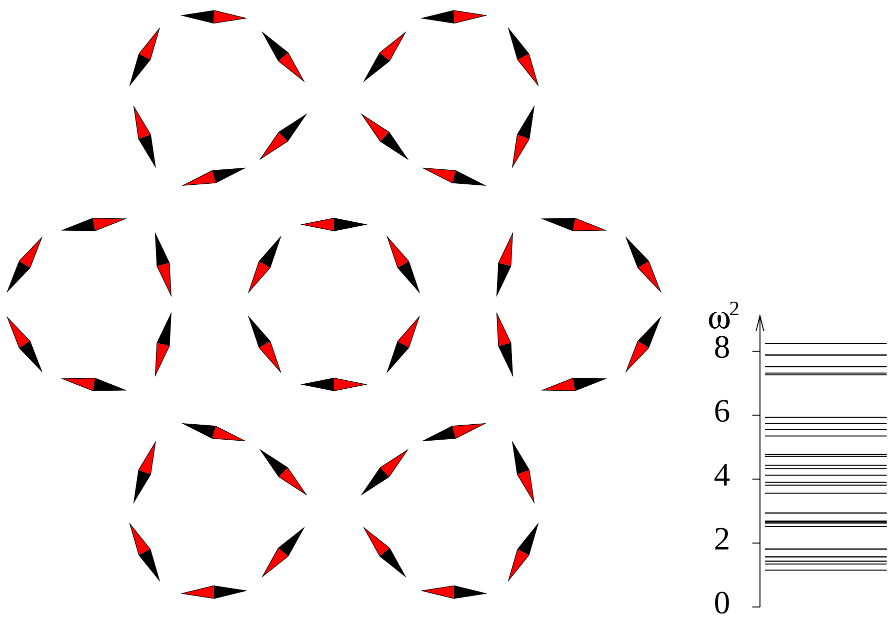
$E_2 = -88.21334$ (151 mal) $\omega_1^2 = 1.22676$



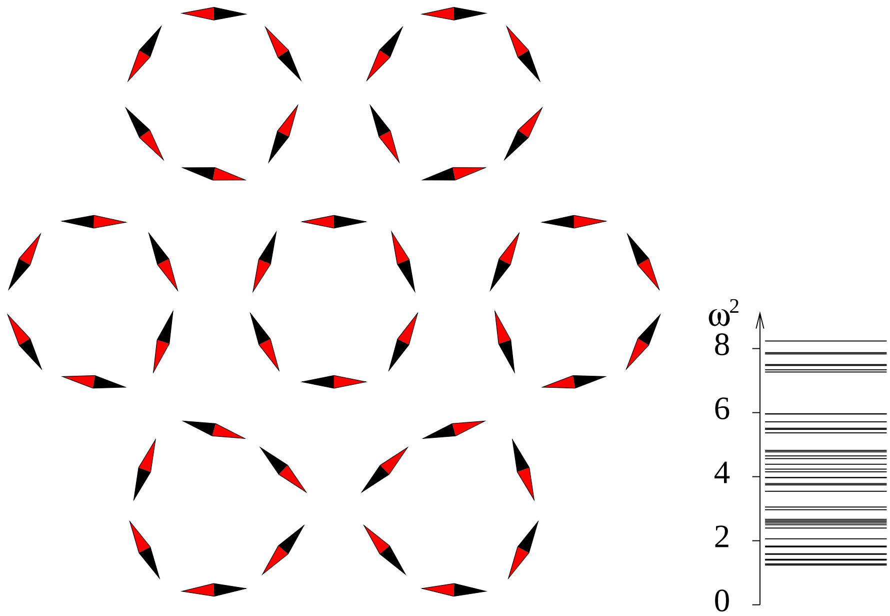
$E_3 = -87.71035$ (123 mal) $\omega_1^2 = 1.28760$



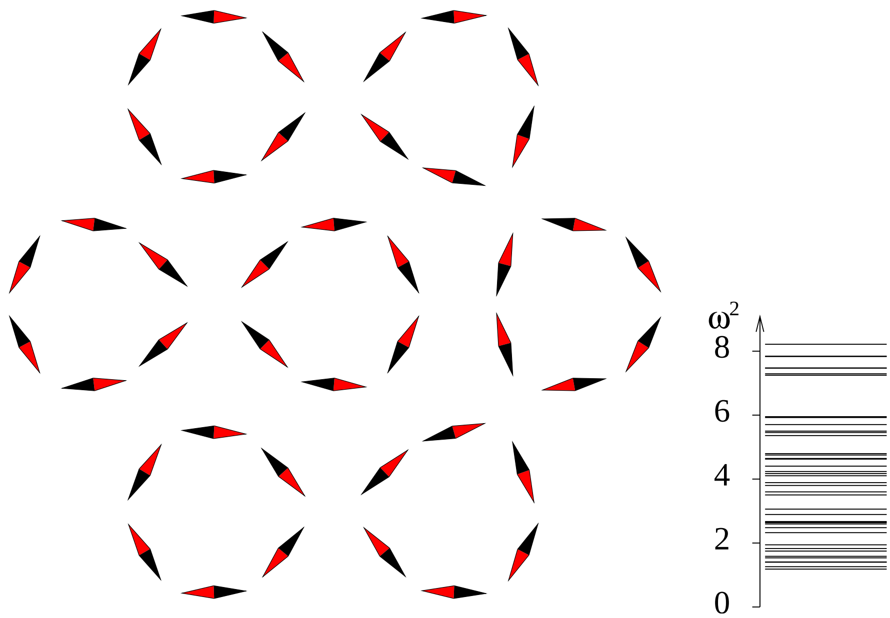
$E_4 = -87.28293$ (111 mal) $\omega_1^2 = 1.24942$



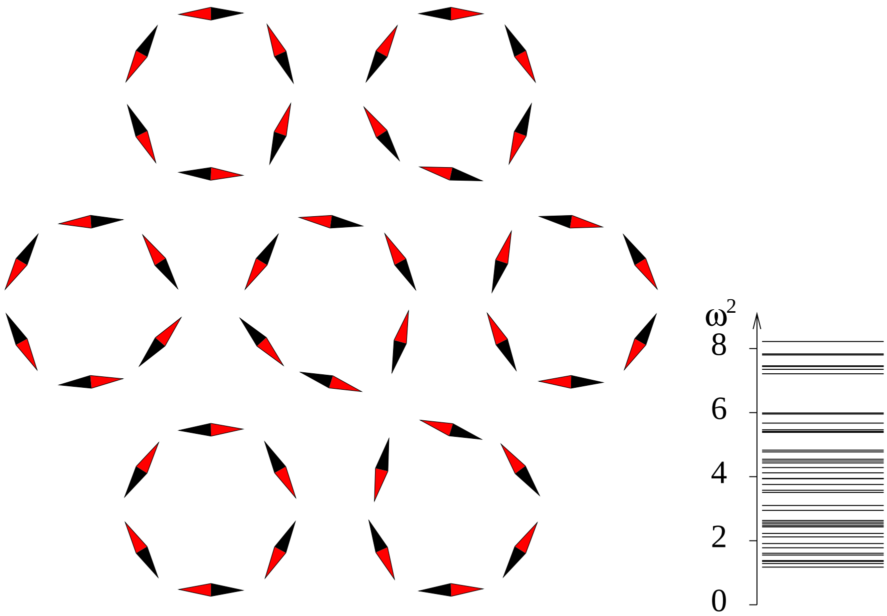
$E_5 = -87.15364$ (17 mal) $\omega_1^2 = 1.15389$



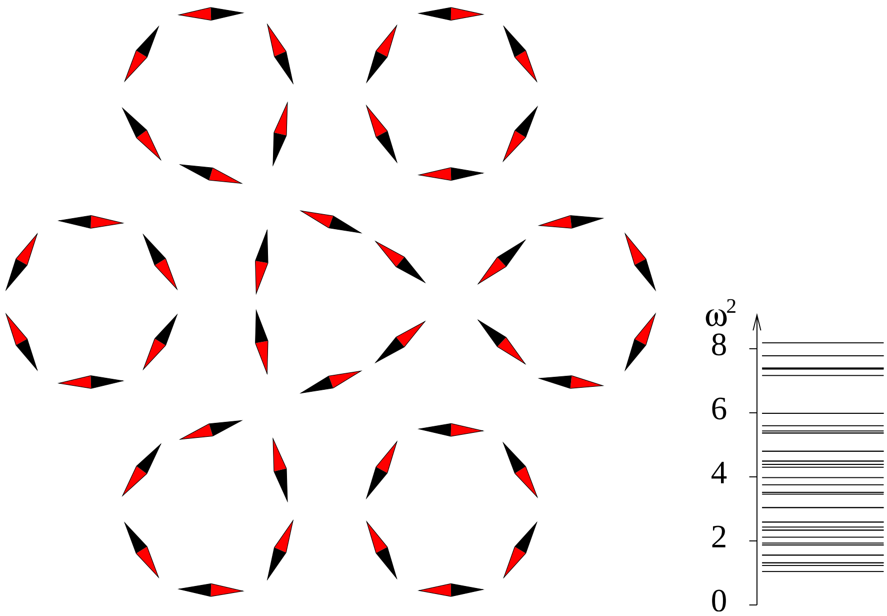
$E_6 = -86.83621$ (104 mal) $\omega_1^2 = 1.23930$



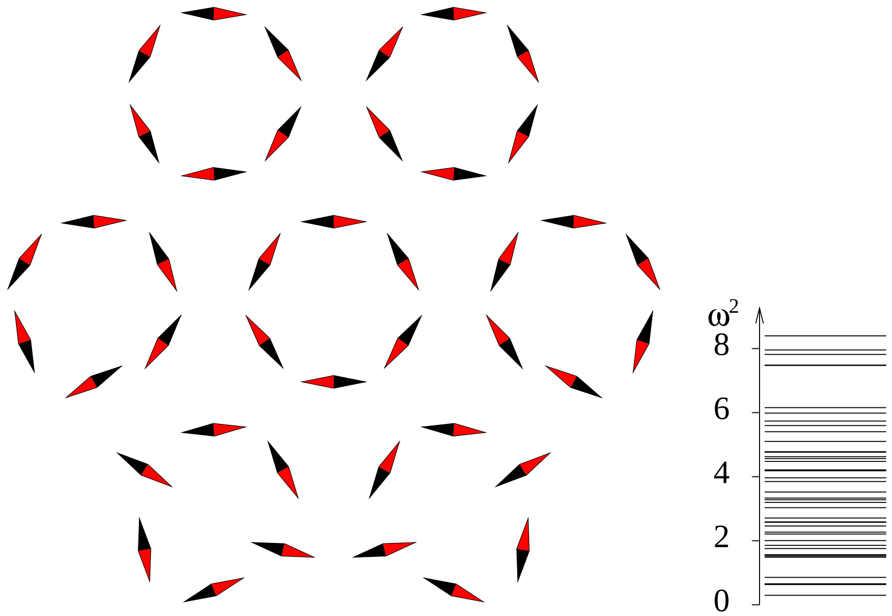
$E_9 = -86.50202$ (85 mal) $\omega_1^2 = 1.18385$



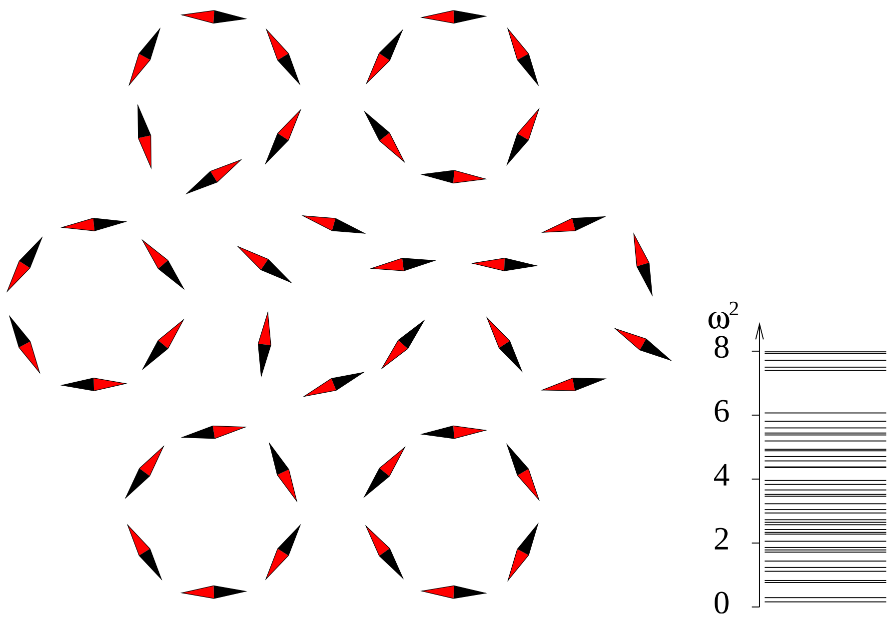
$E_{10} = -86.23646$ (136 mal) $\omega_1^2 = 1.17778$



$E_{13} = -85.41250$ (18 mal) $\omega_1^2 = 1.04494$

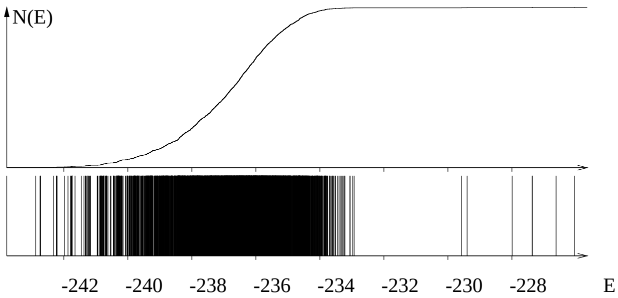


$E_{14} = -78.93625$ (1 mal) $\omega_1^2 = 0.29404$

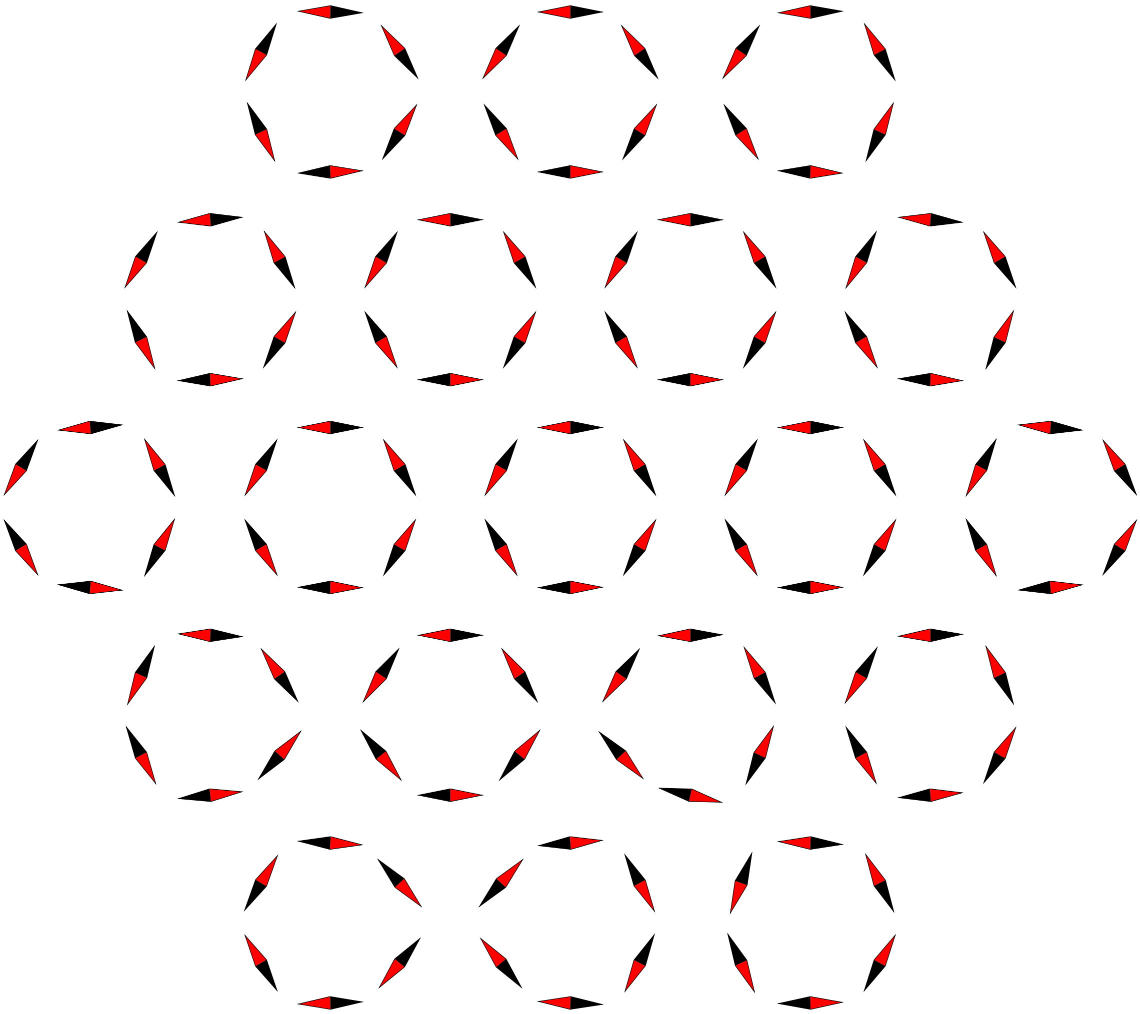


$E_{15} = -77.85829$ (1 mal) $\omega_1^2 = 0.16096$

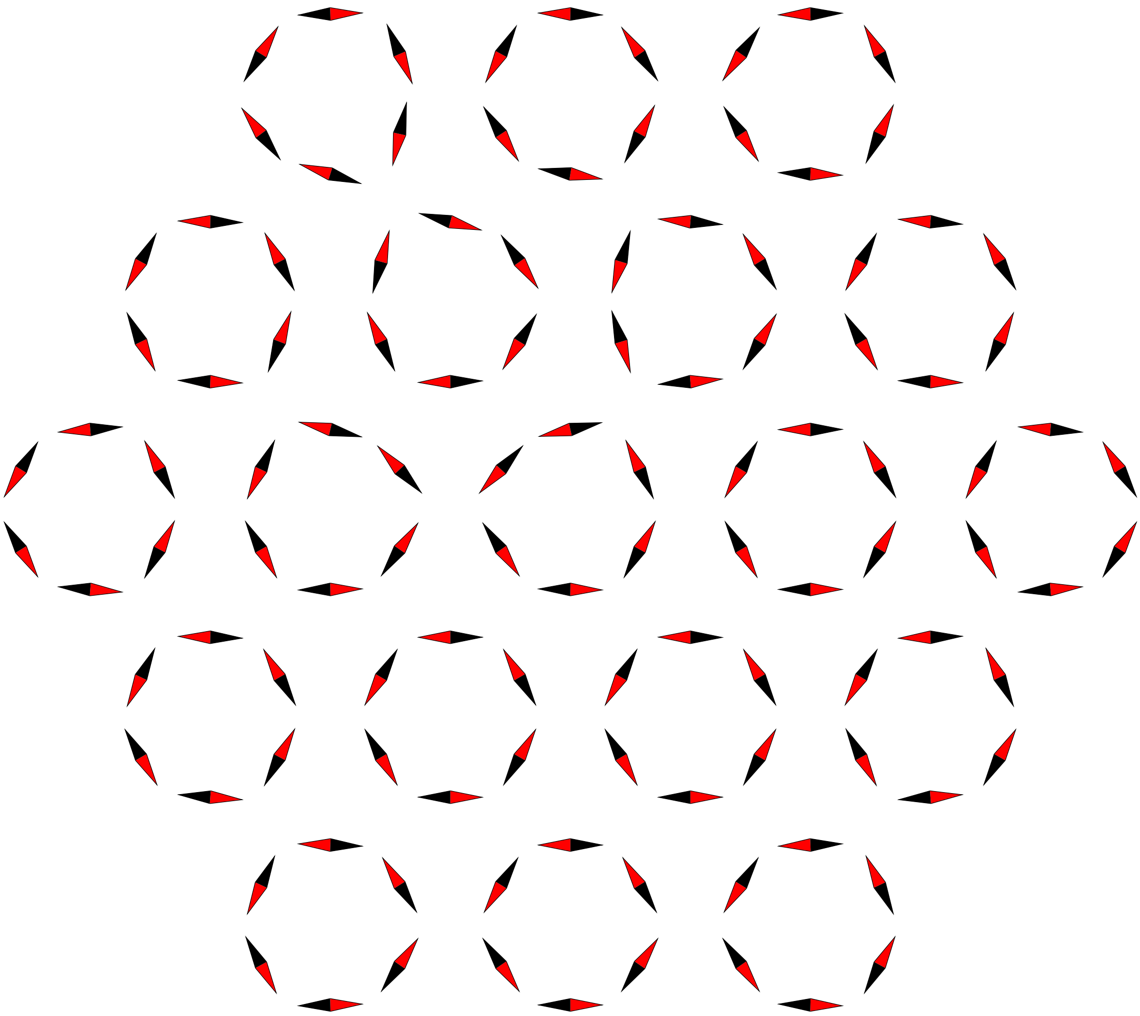
Bienenwaben-Gitter <2,2>

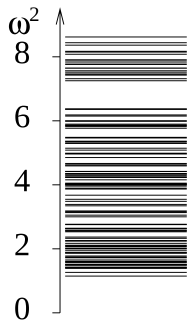


Anzahl Gitterpunkte: 114, Gefundene Energie-Niveaus: 2747, Läufe: 3000

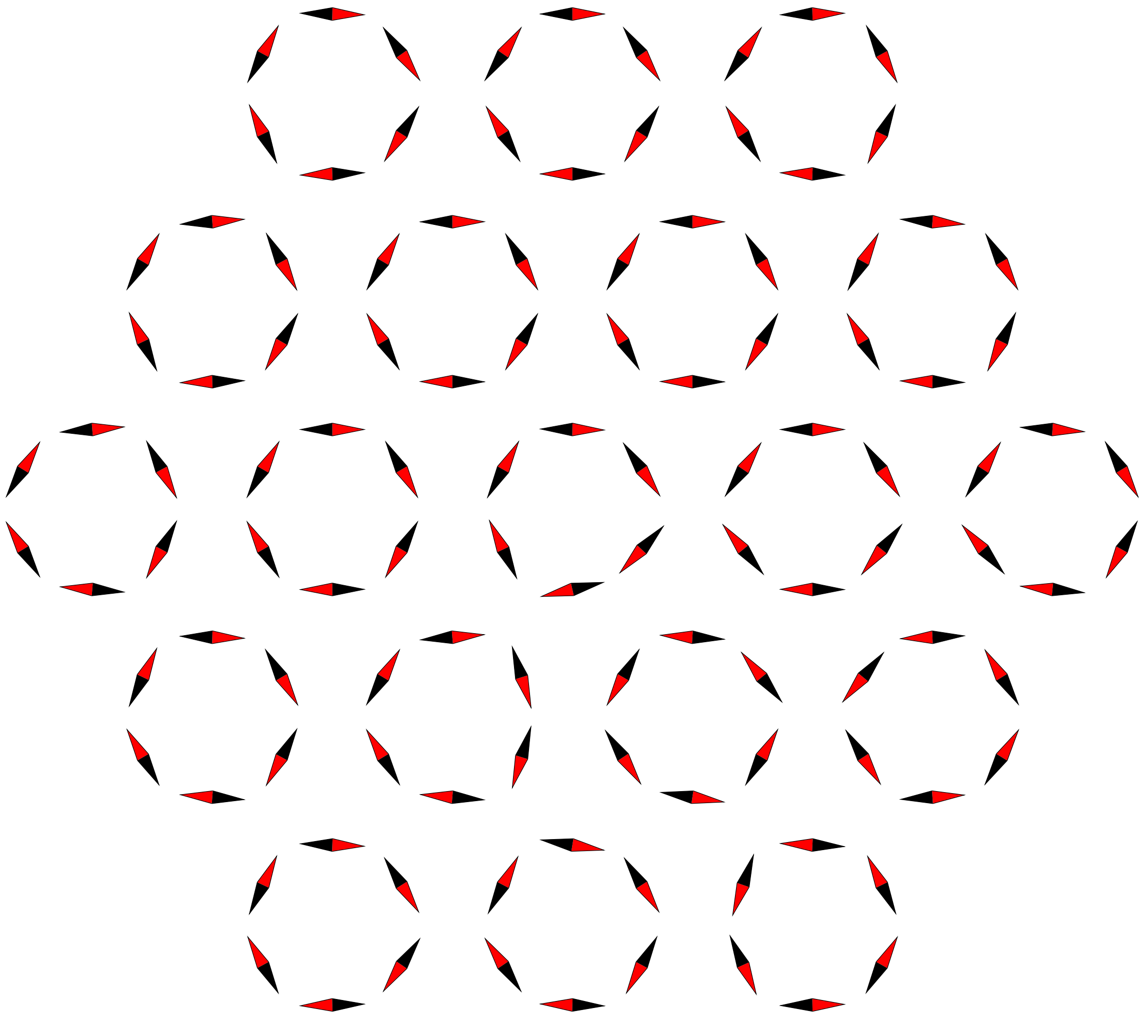


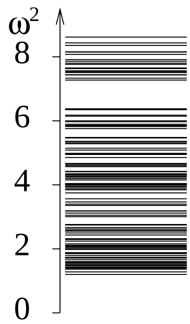
$E_1 = -243.78240$ (1 mal) $\omega_1^2 = 1.23041$



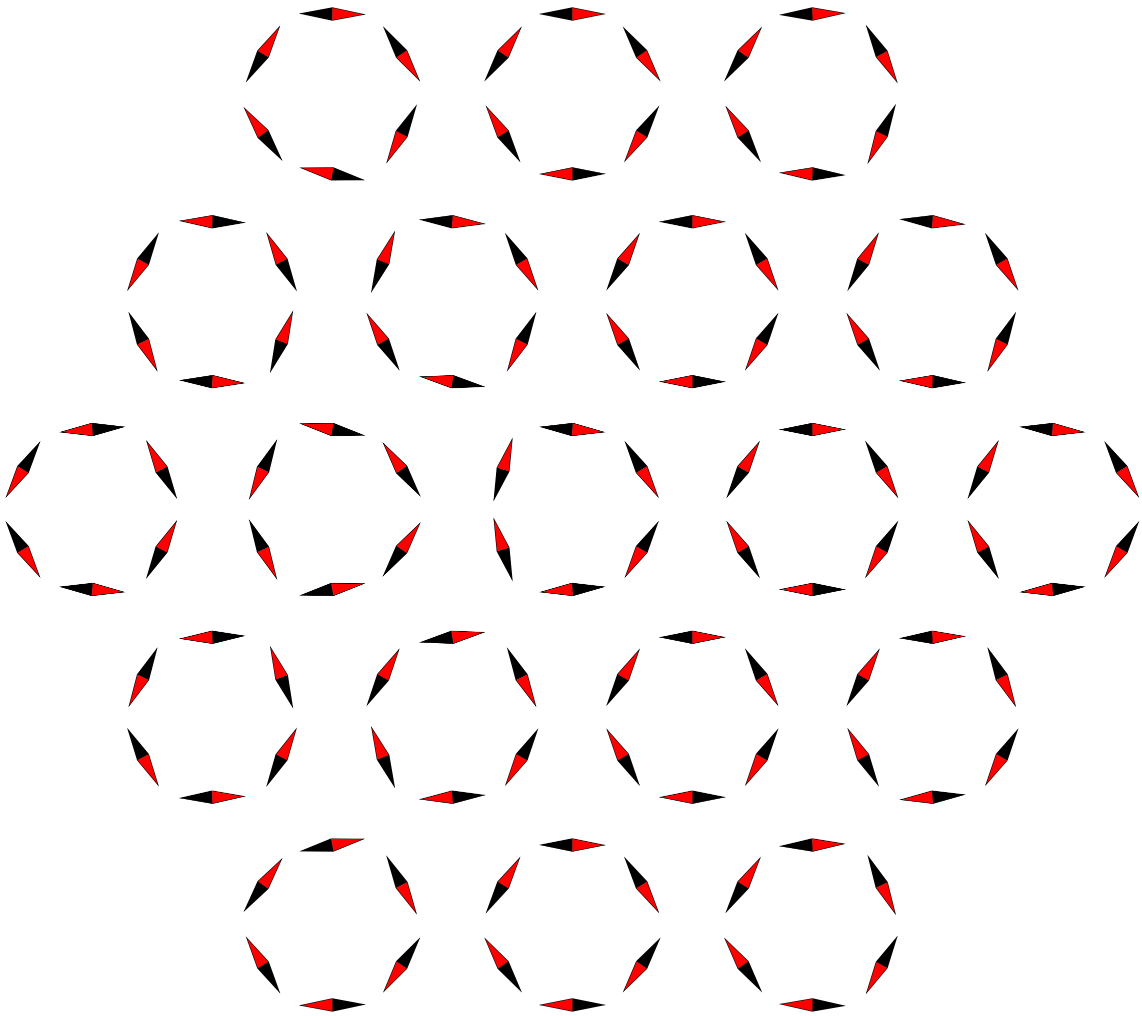


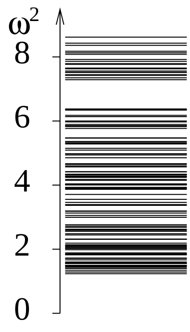
$E_2 = -242.87660$ (1 mal) $\omega_1^2 = 1.14833$



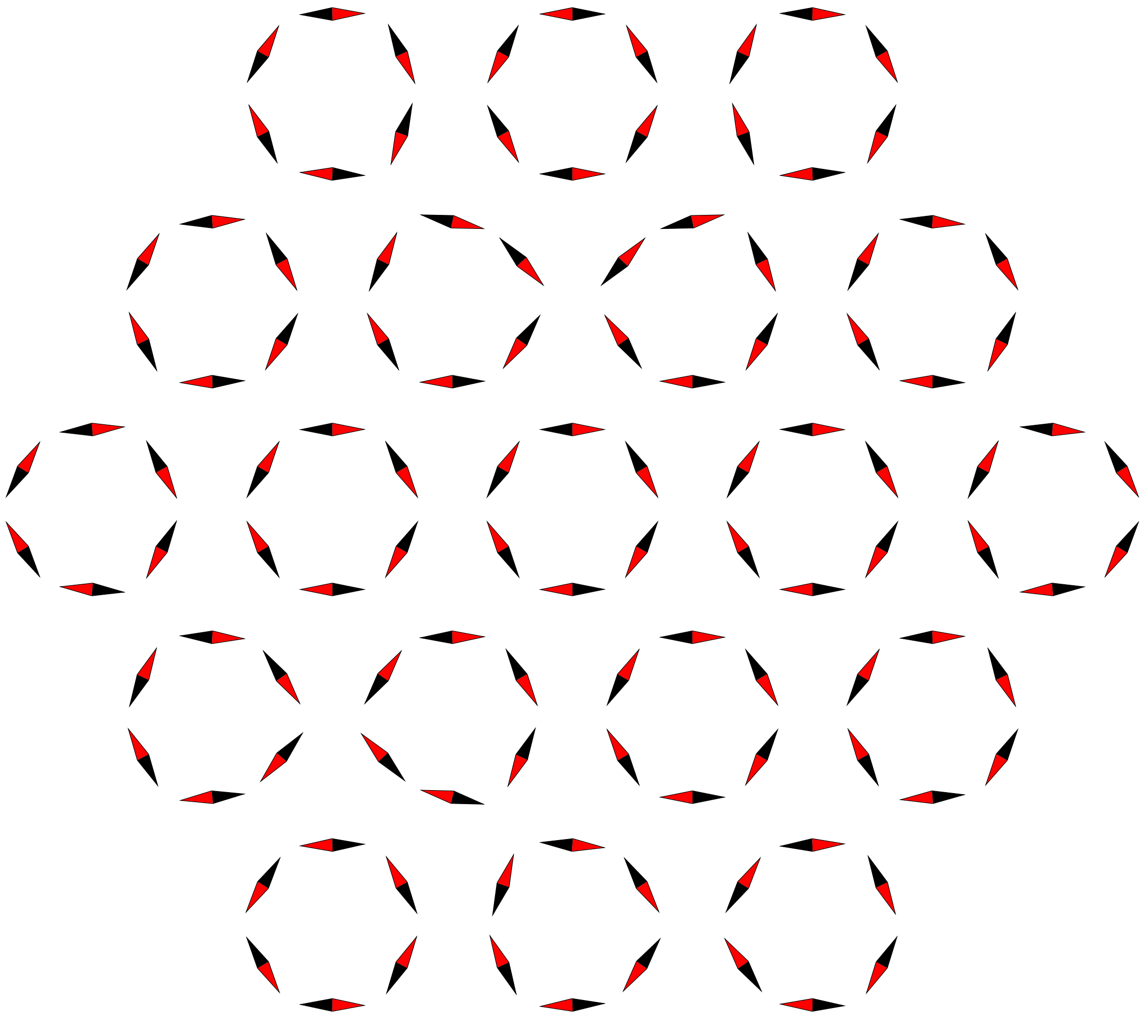


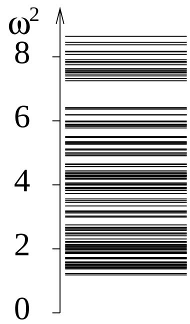
$E_3 = -242.74348$ (1 mal) $\omega_1^2 = 1.19929$



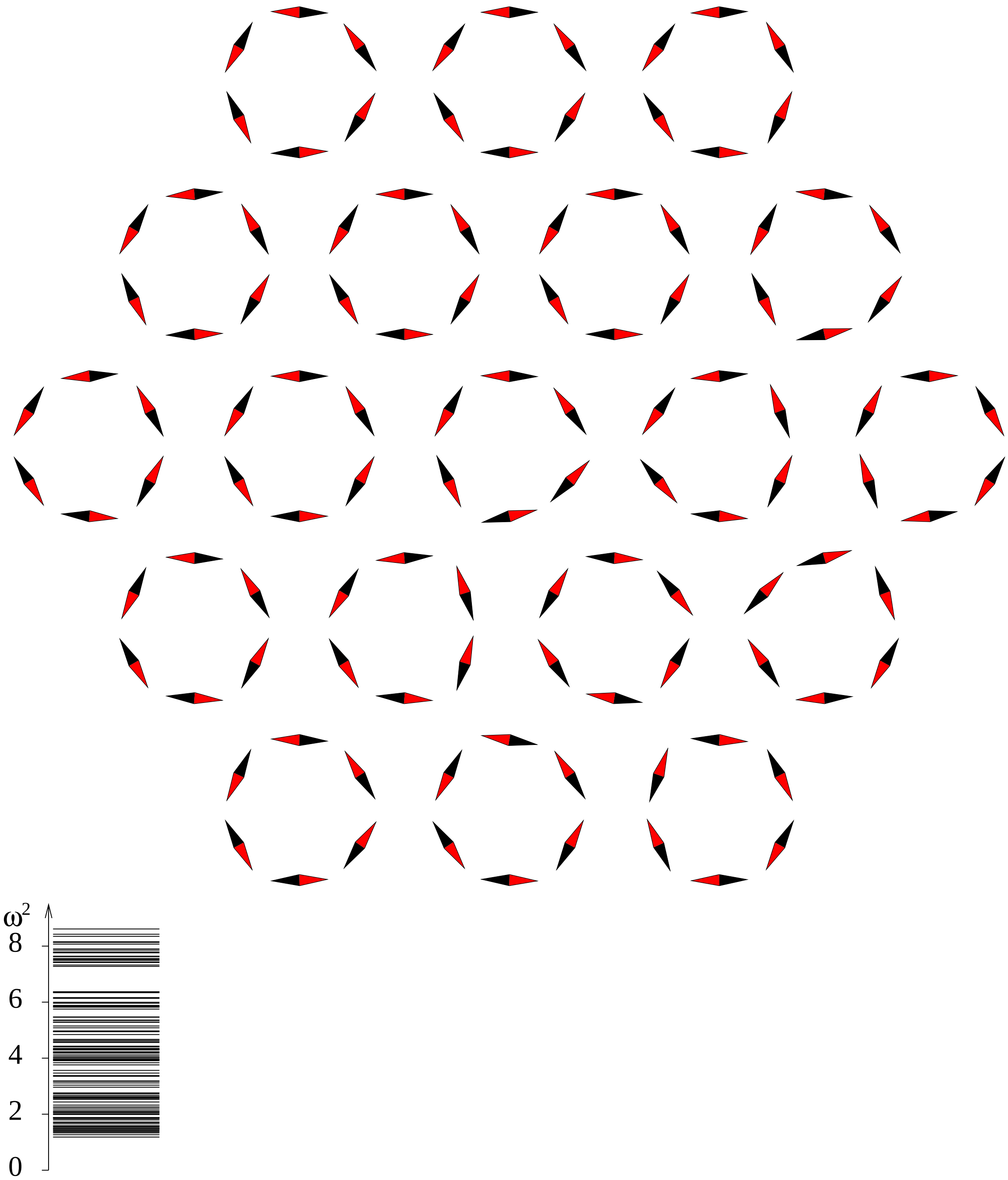


$E_4 = -242.72347$ (1 mal) $\omega_1^2 = 1.23516$

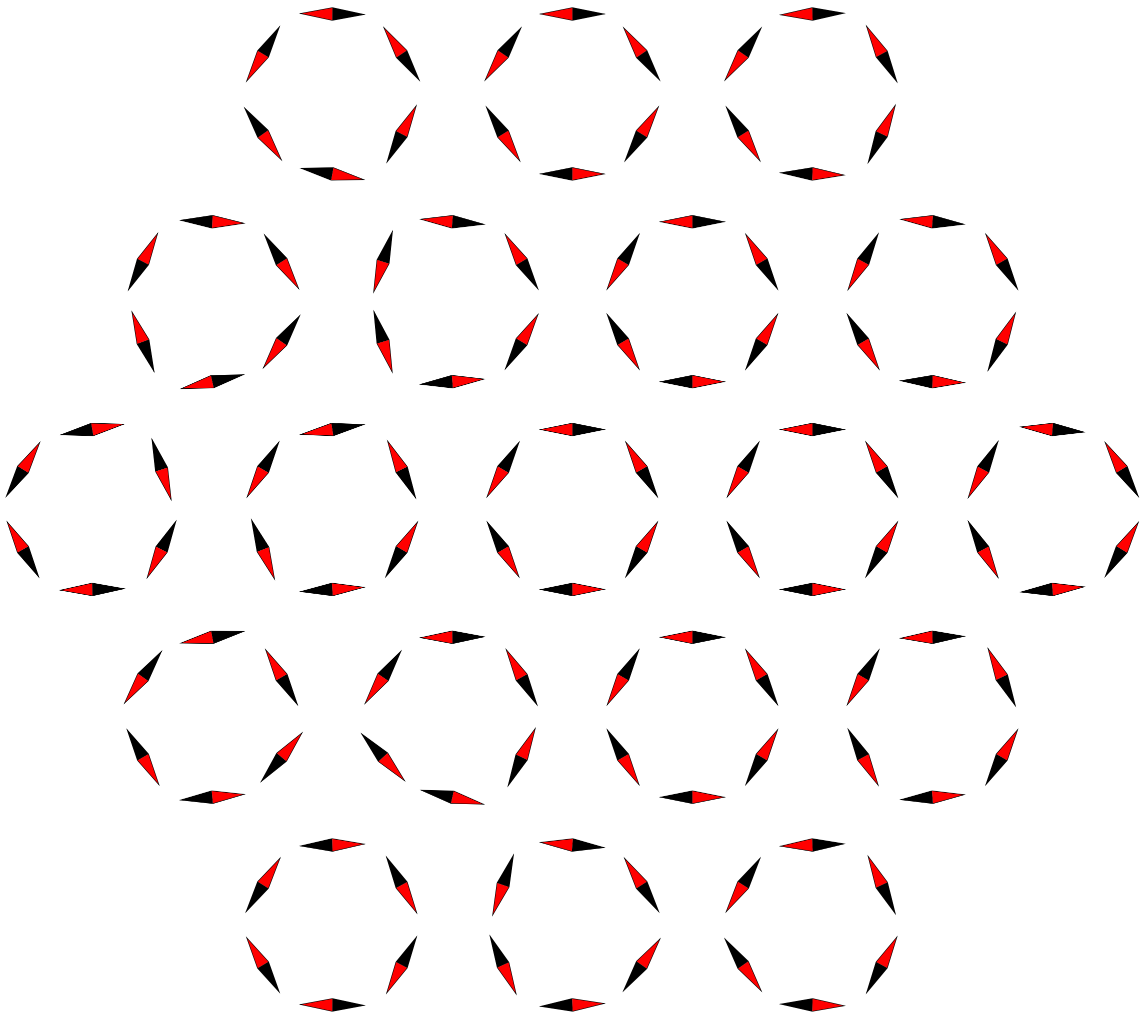


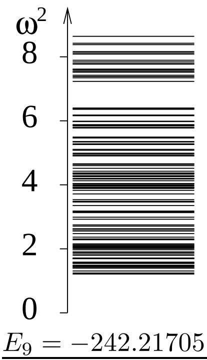


$E_5 = -242.72131$ (1 mal) $\omega_1^2 = 1.18506$

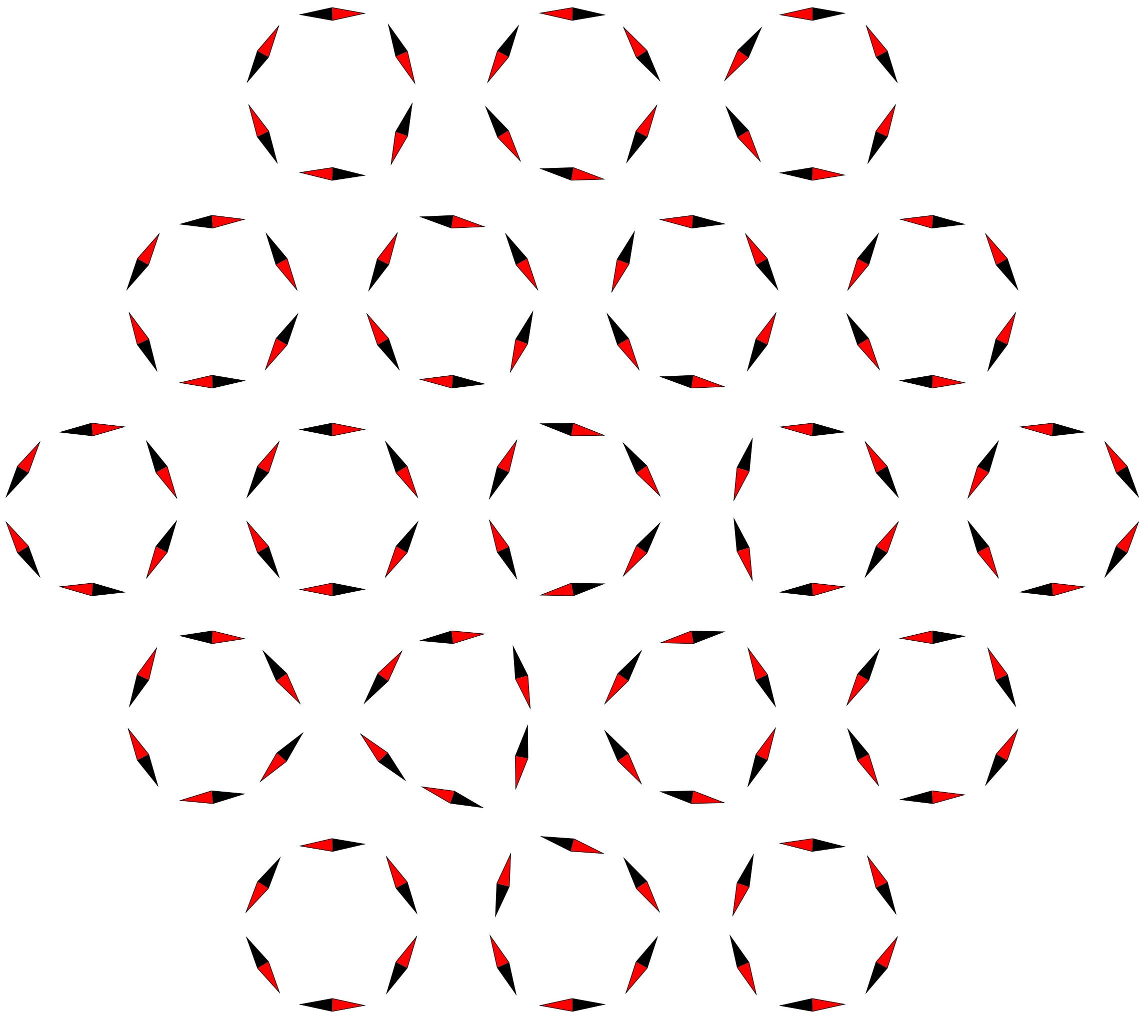


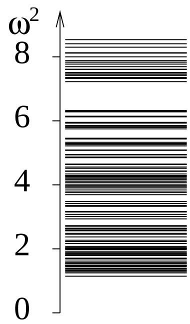
$E_6 = -242.31738$ (2 mal) $\omega_1^2 = 1.18434$



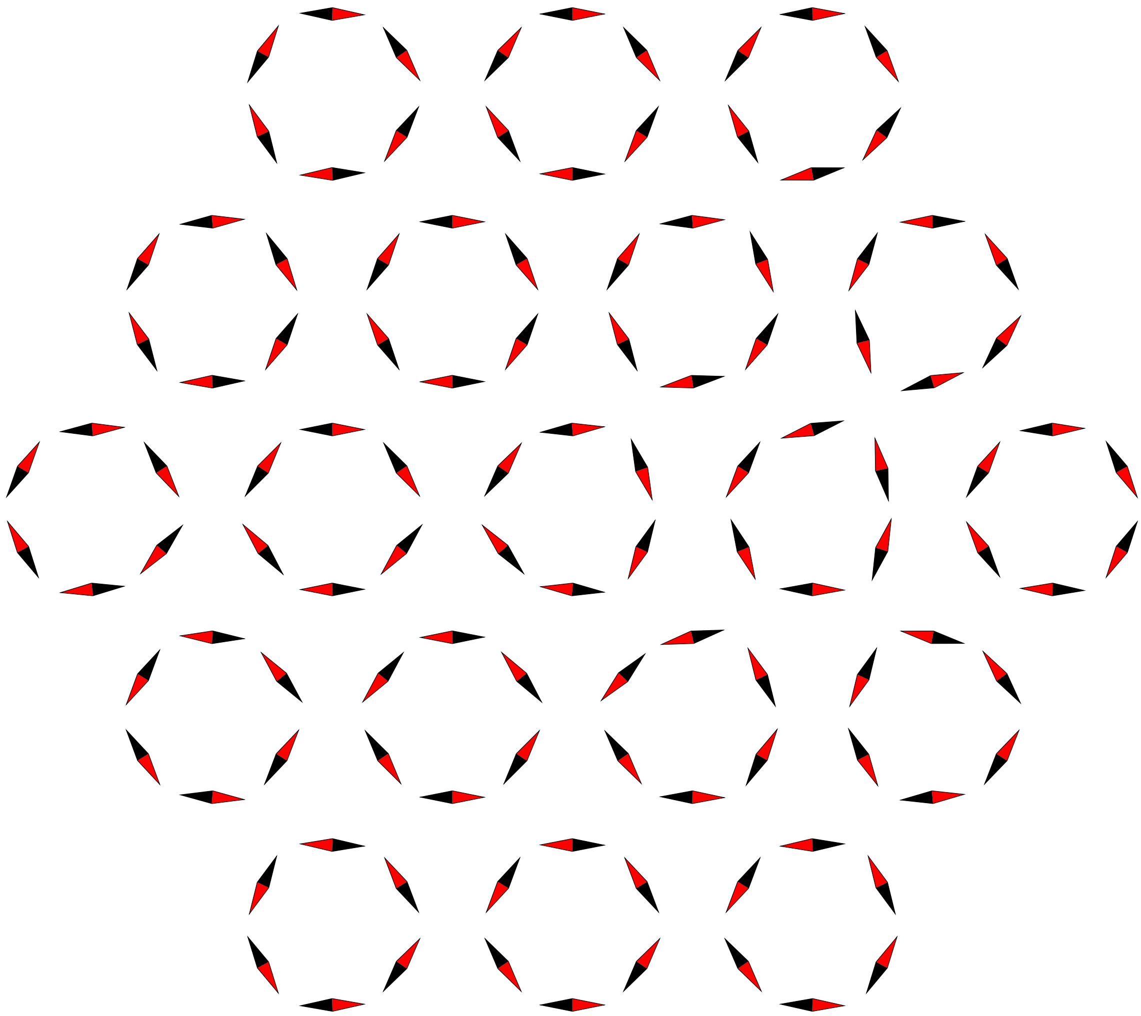


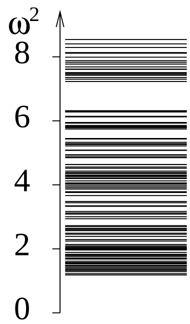
$E_9 = -242.21705$ (3 mal) $\omega_1^2 = 1.21143$



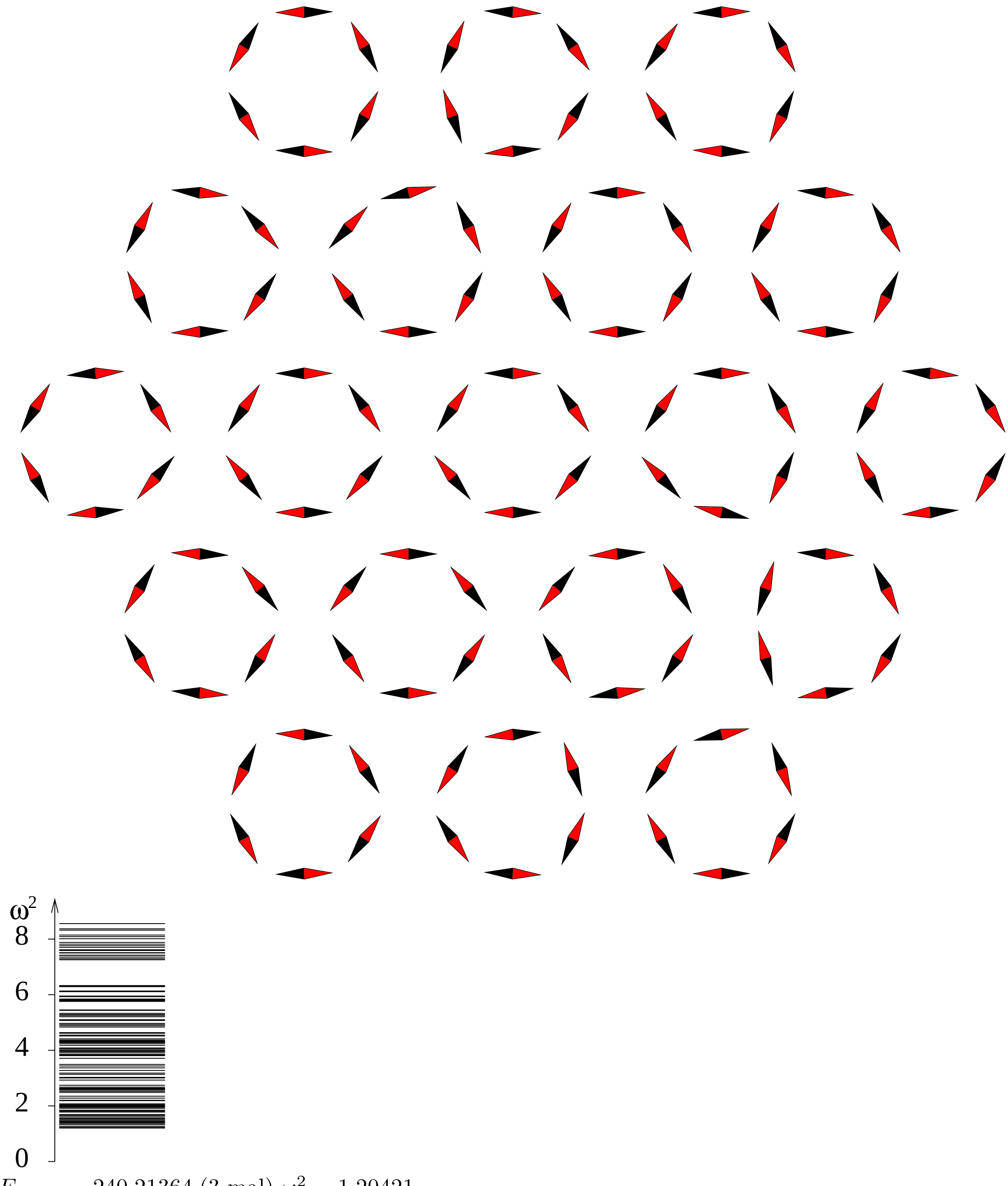


$E_{93} = -240.29026$ (3 mal) $\omega_1^2 = 1.14321$

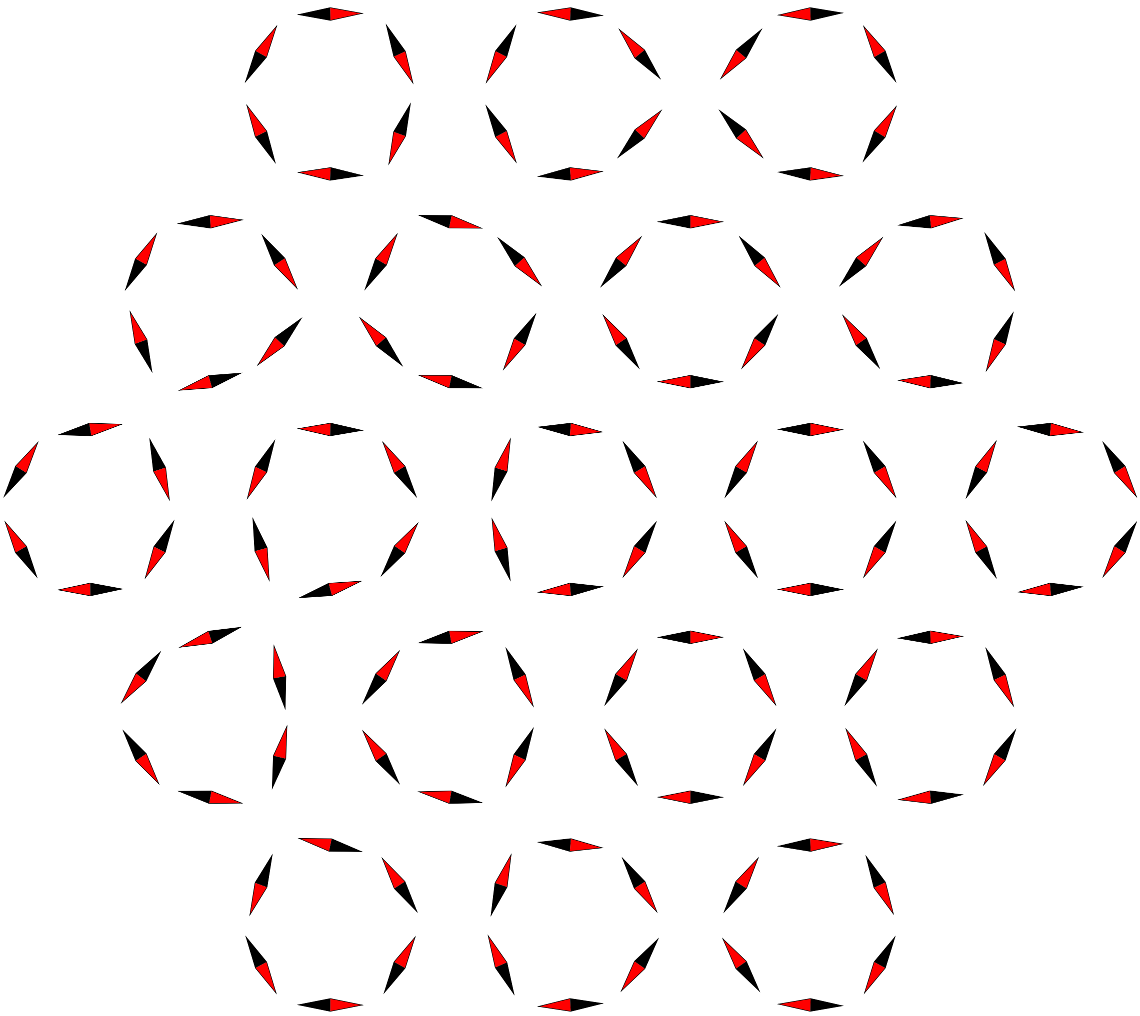


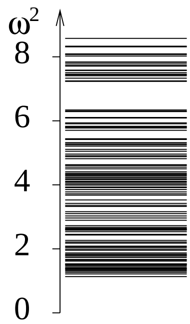


$E_{104} = -240.23256$ (3 mal) $\omega_1^2 = 1.18326$

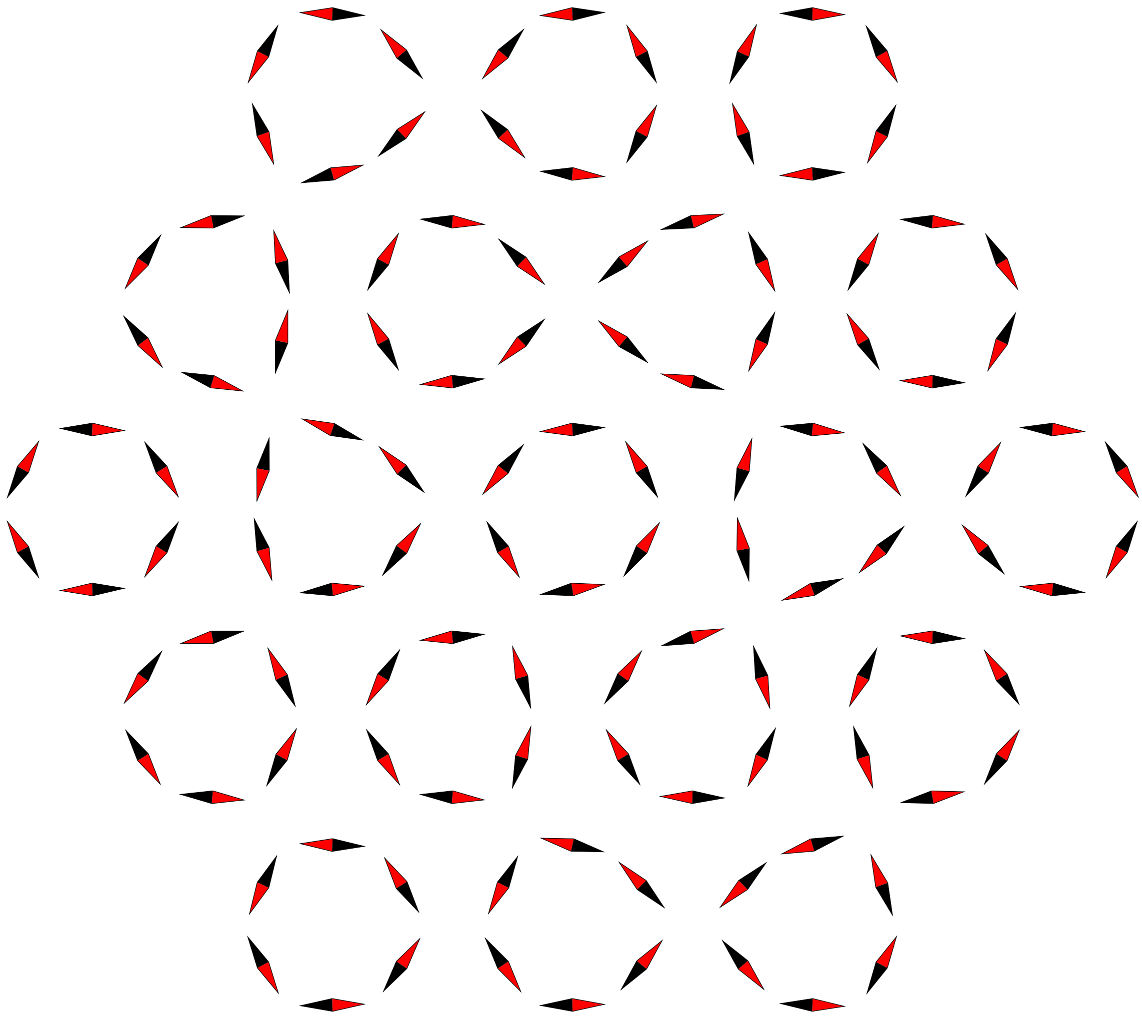


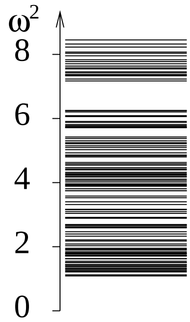
$E_{106} = -240.21364$ (3 mal) $\omega_1^2 = 1.20421$



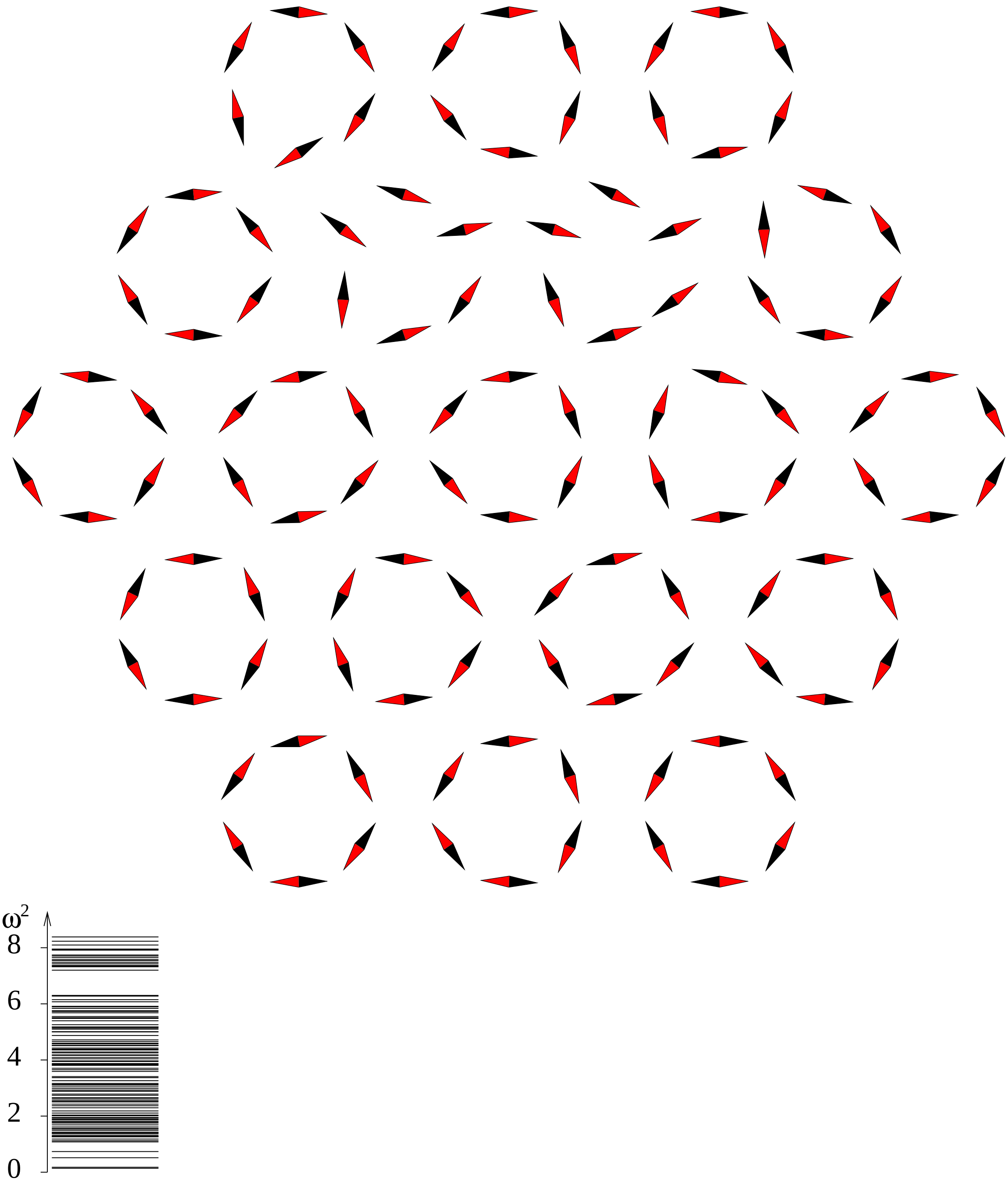


$E_{199} = -239.43178$ (3 mal) $\omega_1^2 = 1.13213$

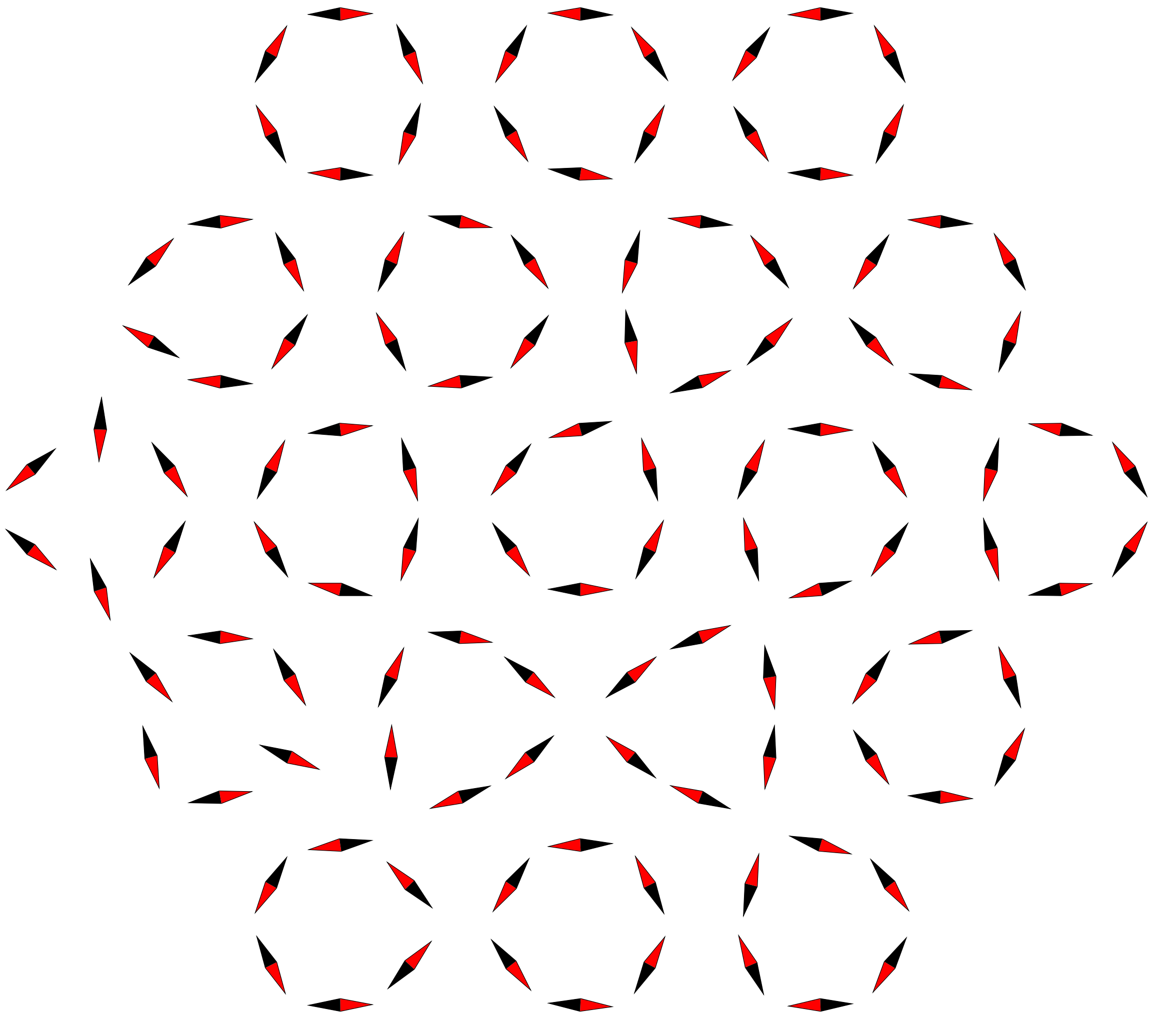


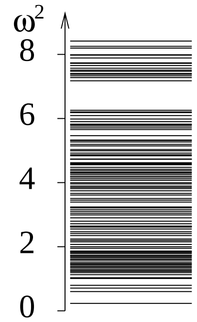


$E_{951} = -237.33715$ (4 mal) $\omega_1^2 = 1.08683$

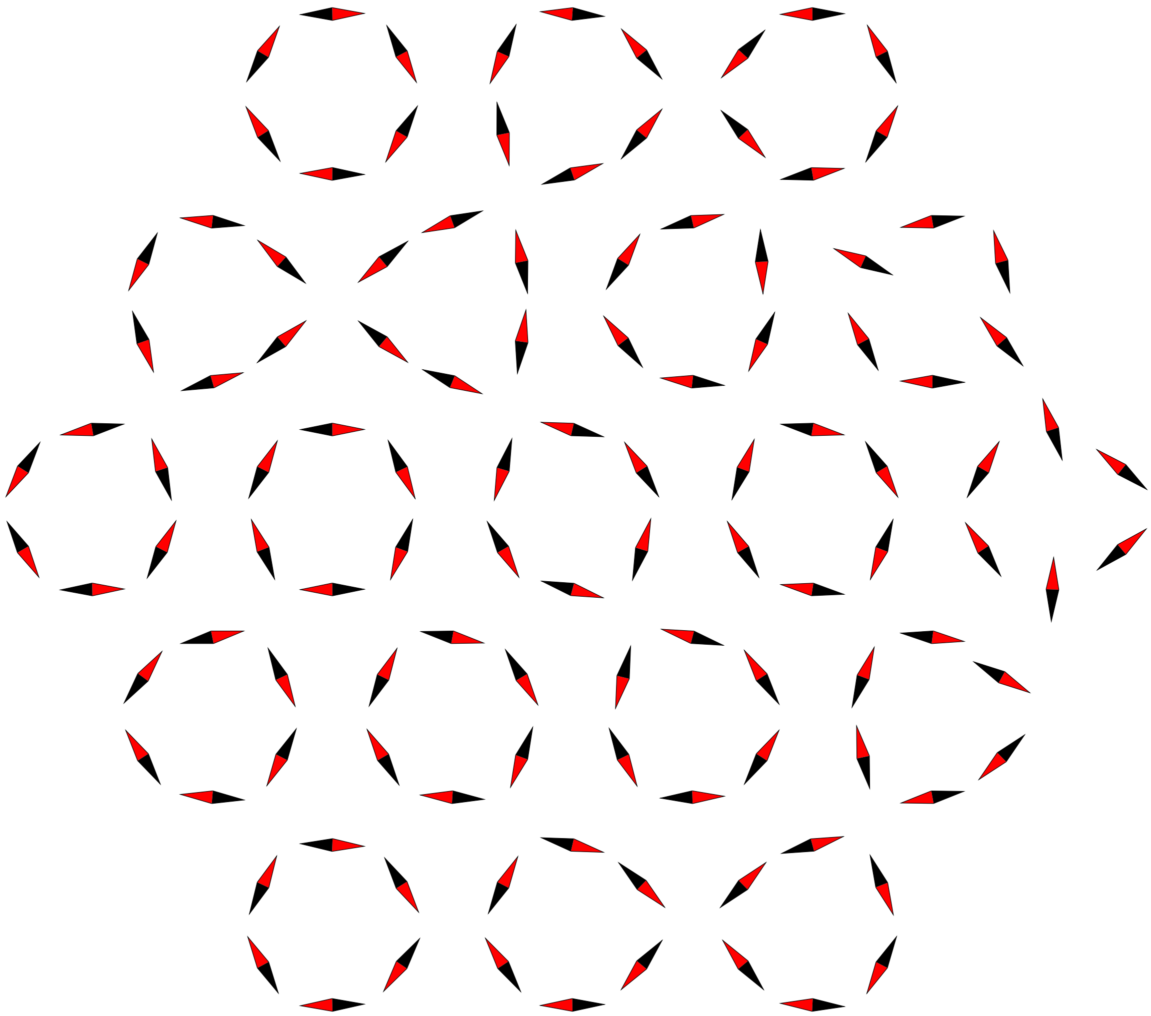


$E_{2745} = -227.35901$ (1 mal) $\omega_1^2 = 0.13996$

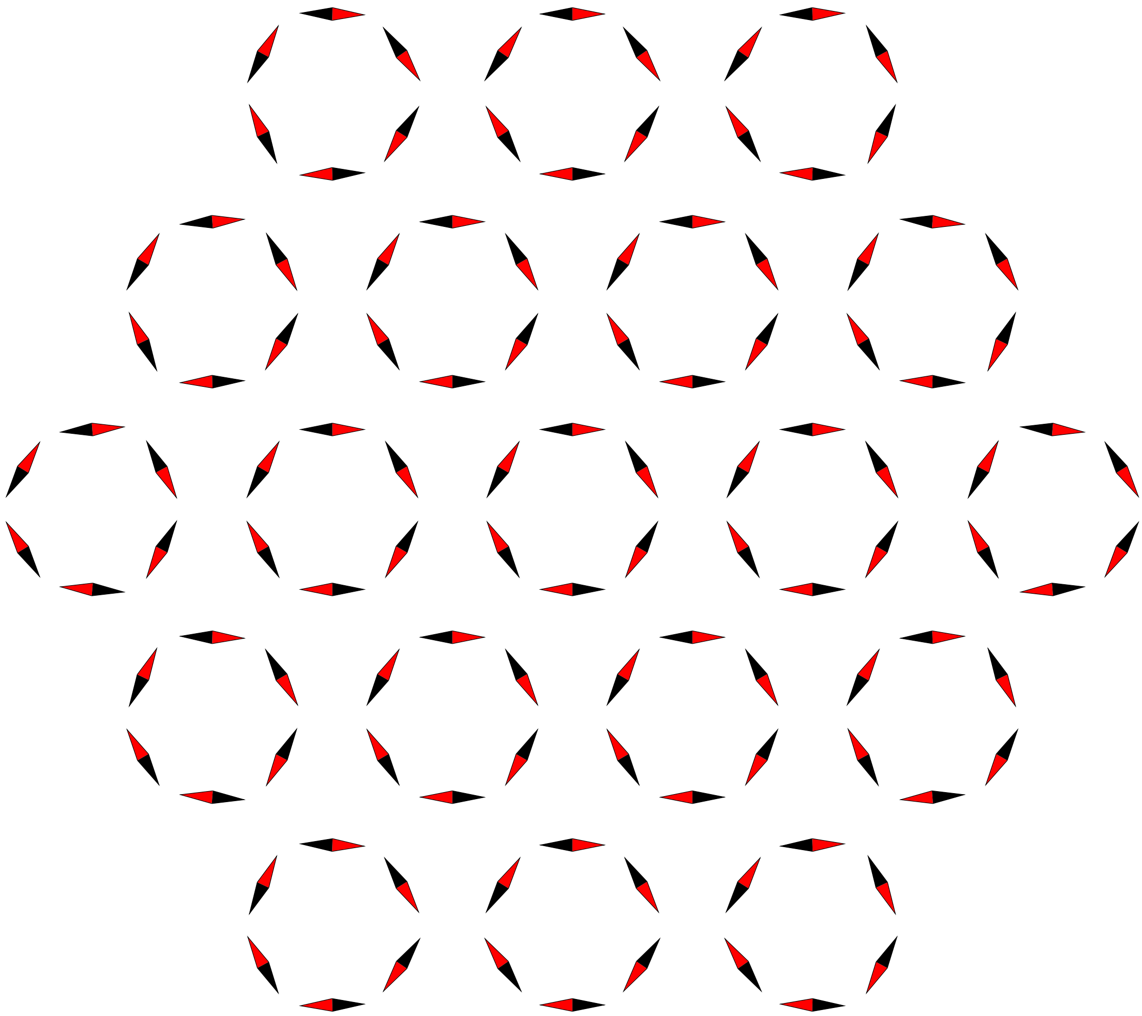


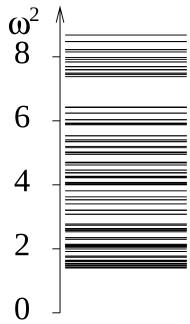


$E_{2746} = -226.61913$ (1 mal) $\omega_1^2 = 0.23243$



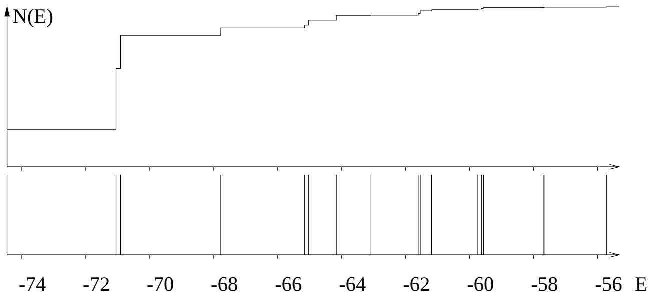
$E_{2747} = -226.04751$ (1 mal) $\omega_1^2 = 0.24580$



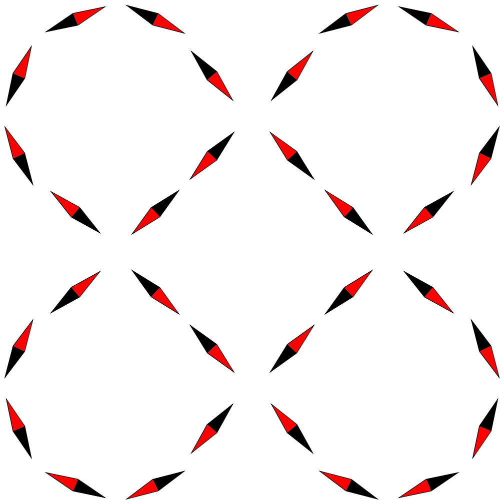


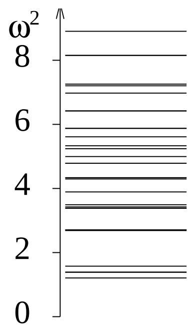
$E_0 = -246.31677$ (0 mal) $\omega_1^2 = 1.39996$

AchtVier-Gitter(2,2)

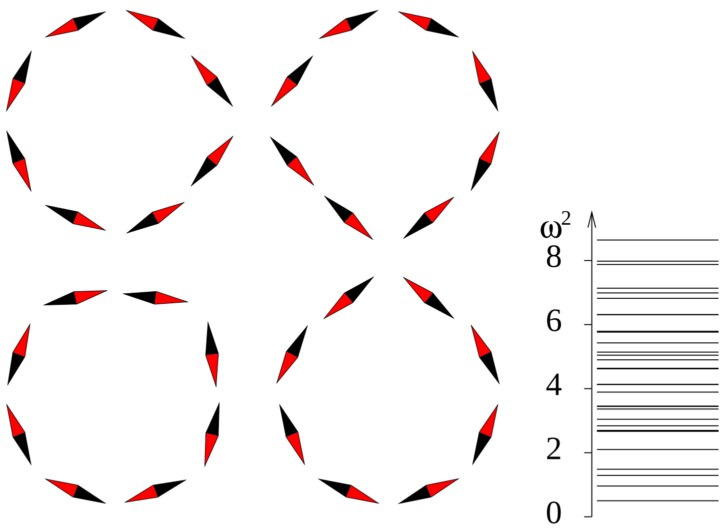


Anzahl Gitterpunkte: 32, Gefundene Energie-Niveaus: 20, Läufe: 1000

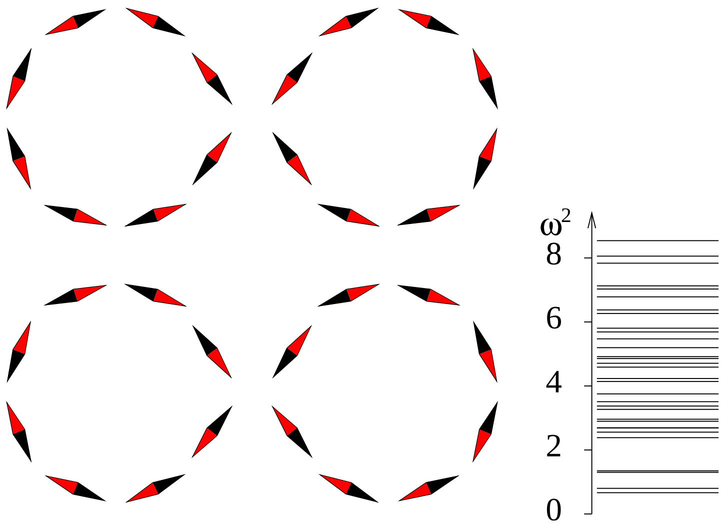




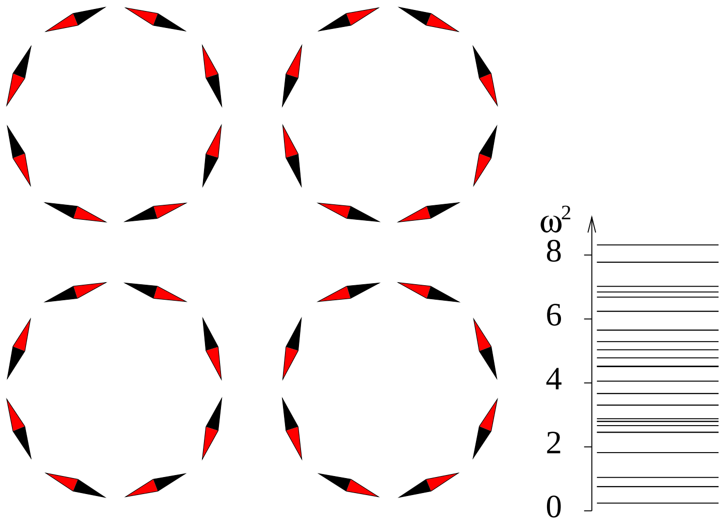
$E_1 = -74.44537$ (232 mal) $\omega_1^2 = 1.20736$



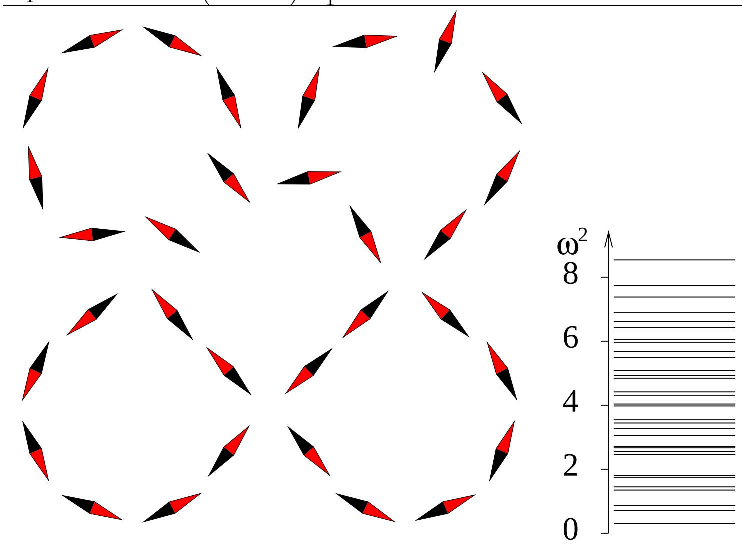
$E_2 = -71.03958$ (382 mal) $\omega_1^2 = 0.49931$



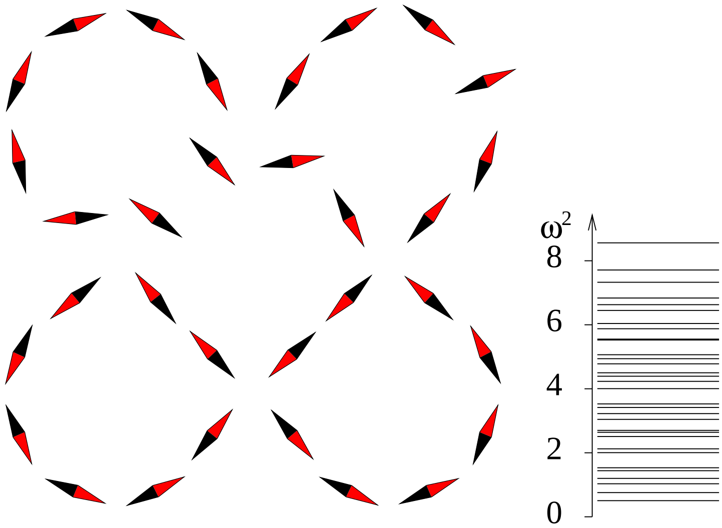
$E_3 = -70.90098$ (208 mal) $\omega_1^2 = 0.66493$



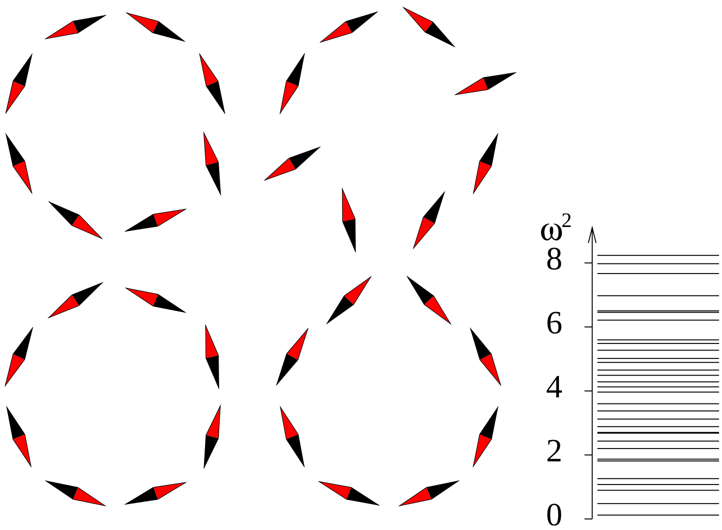
$E_4 = -67.76789$ (46 mal) $\omega_1^2 = 0.23895$



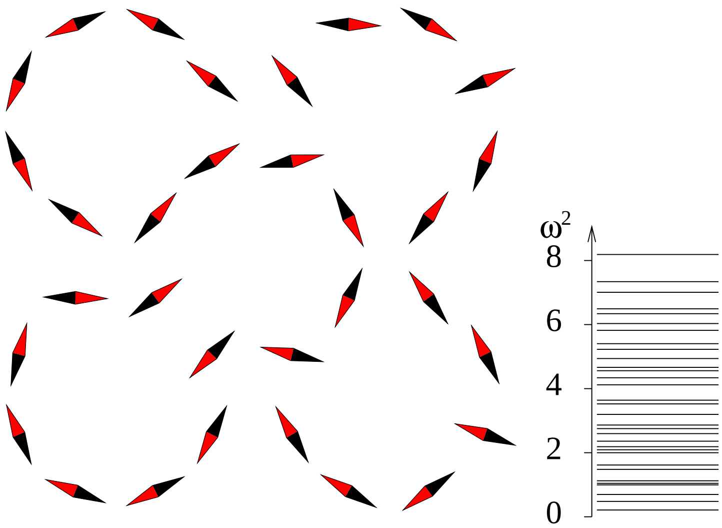
$E_5 = -65.14823$ (18 mal) $\omega_1^2 = 0.30898$



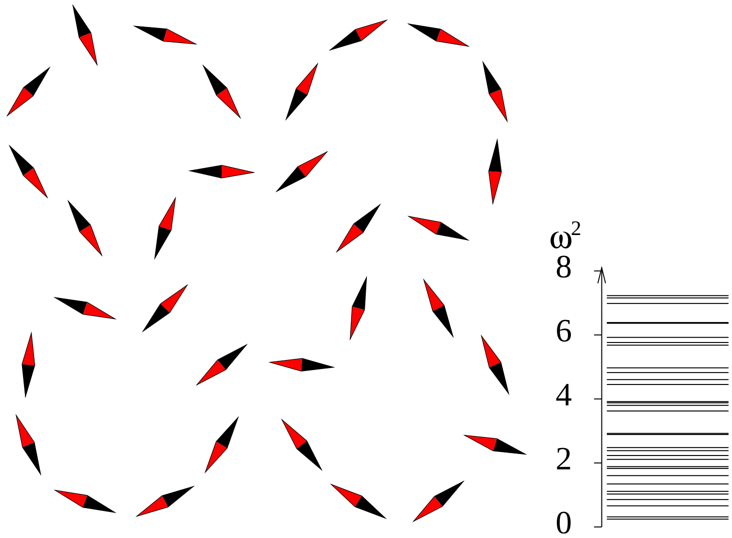
$E_6 = -65.03153$ (31 mal) $\omega_1^2 = 0.50464$



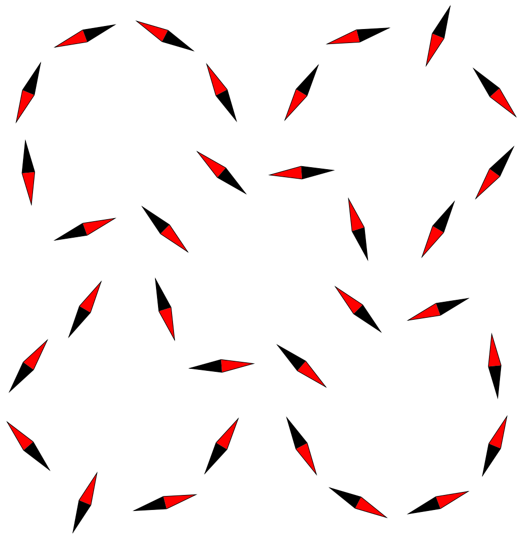
$E_7 = -64.15710$ (30 mal) $\omega_1^2 = 0.12079$

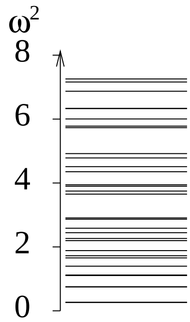


$E_{18} = -57.66584$ (2 mal) $\omega_1^2 = 0.21318$



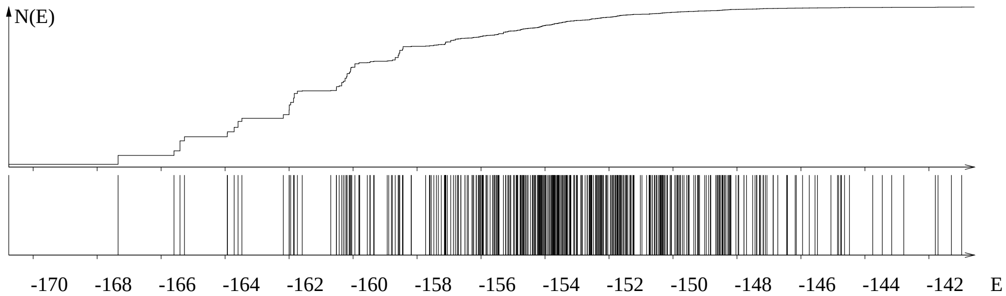
$E_{19} = -55.72511$ (1 mal) $\omega_1^2 = 0.24432$



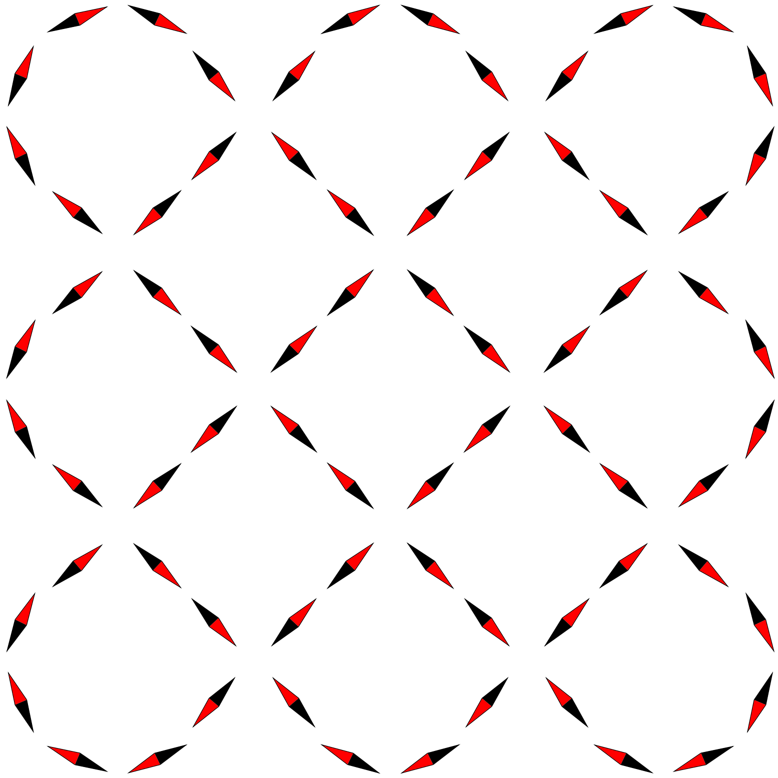


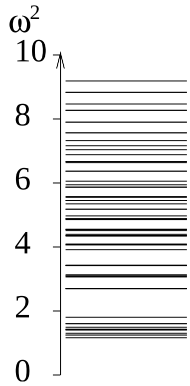
$E_{20} = -55.72378$ (1 mal) $\omega_1^2 = 0.26092$

AchtVier-Gitter(3,3)

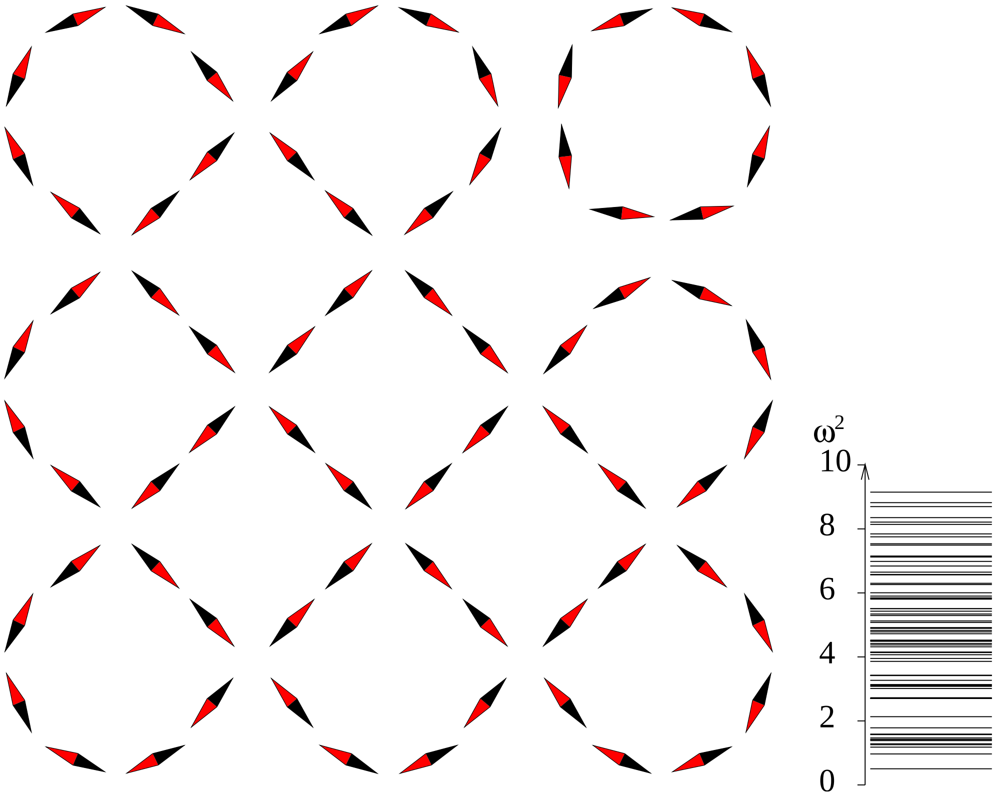


Anzahl Gitterpunkte: 72, Gefundene Energie-Niveaus: 423, Läufe: 3000

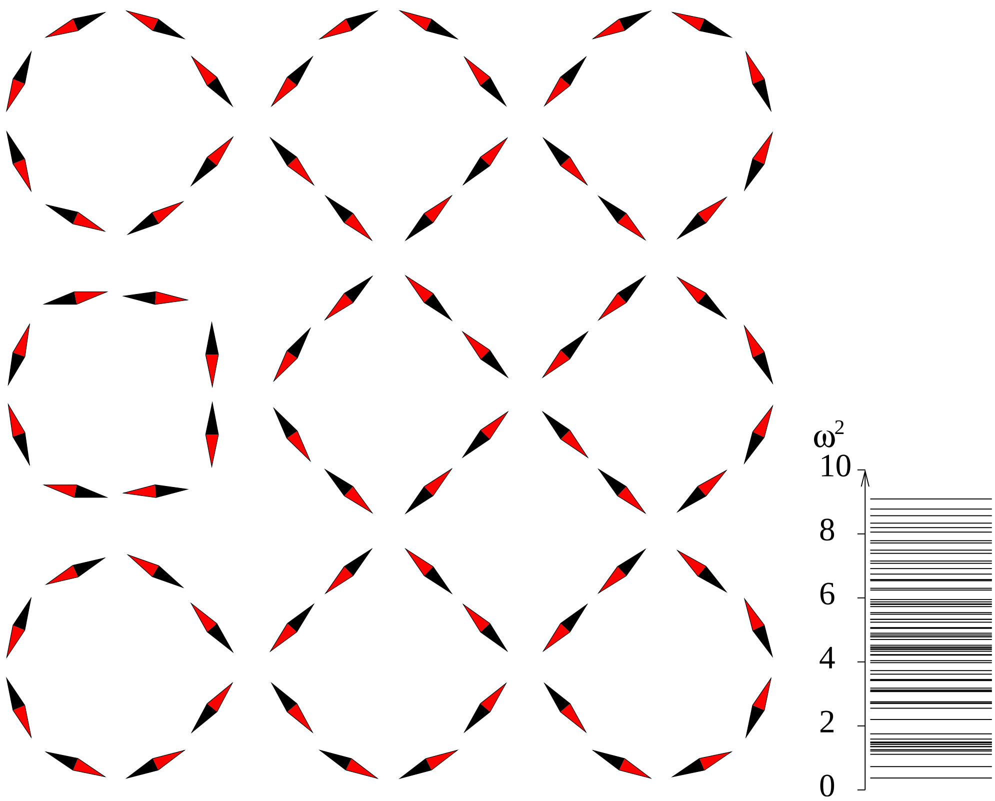




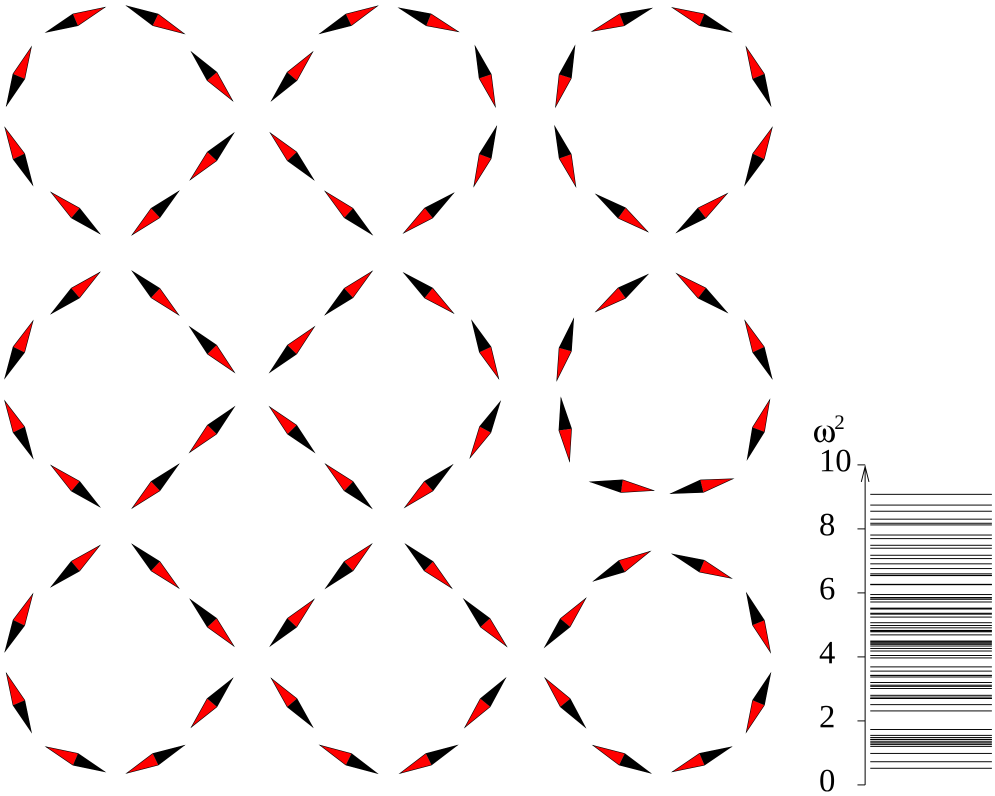
$E_1 = -170.76132$ (52 mal) $\omega_1^2 = 1.16567$



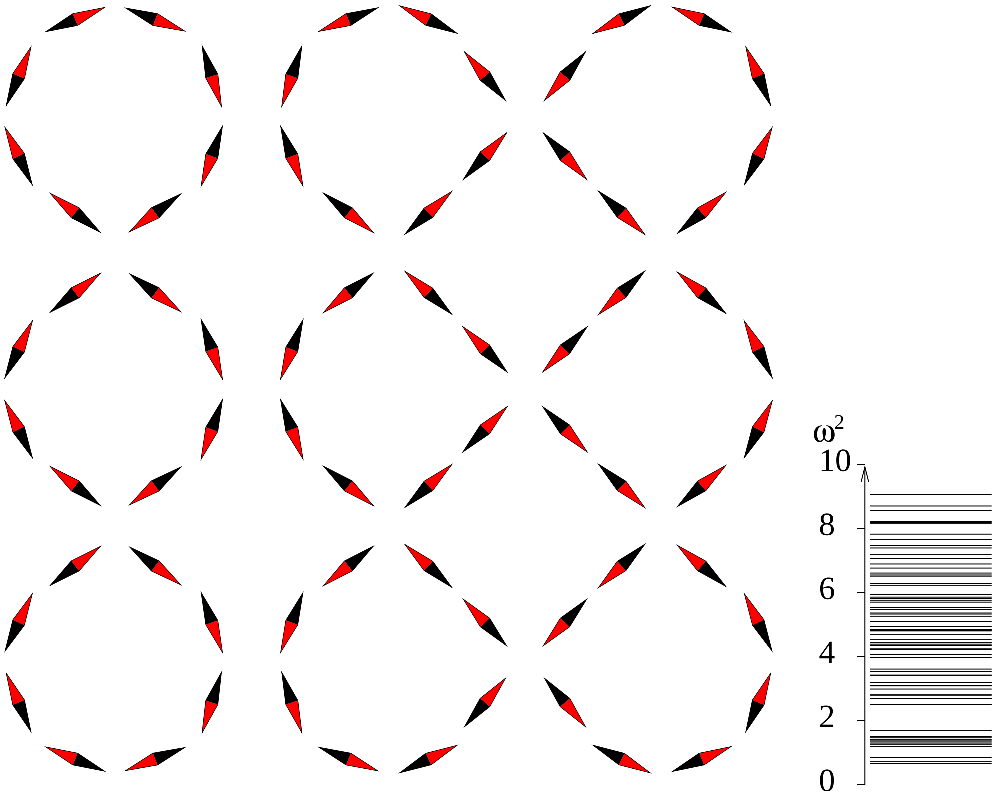
$E_2 = -167.34413$ (167 mal) $\omega_1^2 = 0.50362$



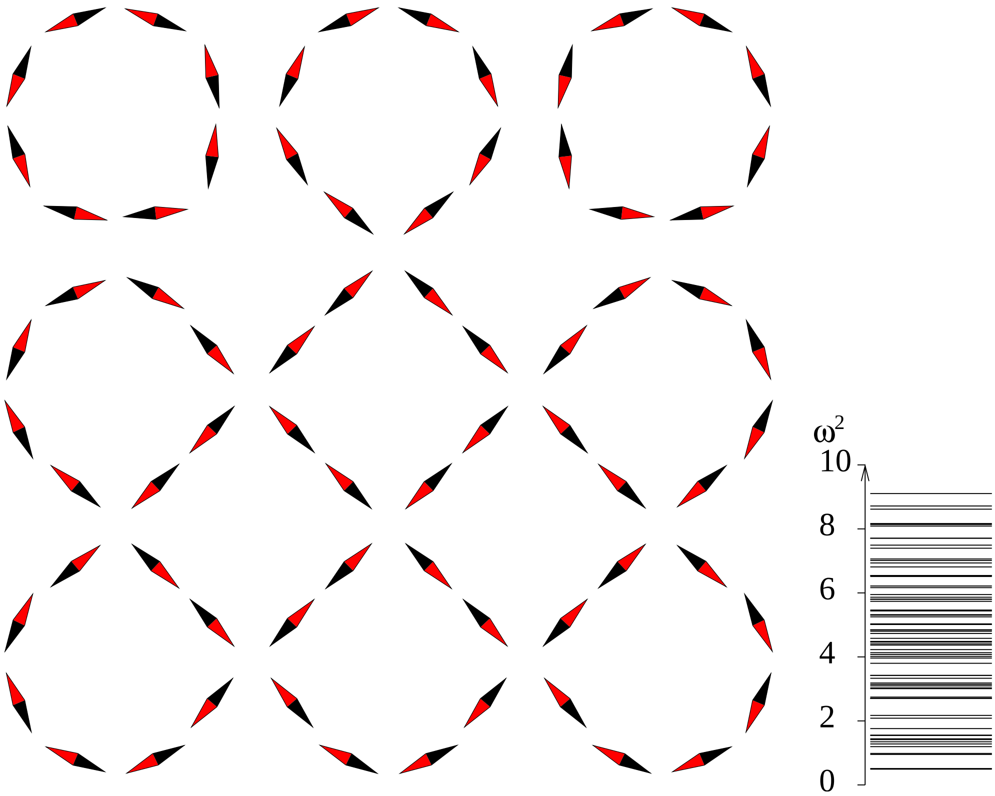
$E_3 = -165.59557$ (86 mal) $\omega_1^2 = 0.37313$



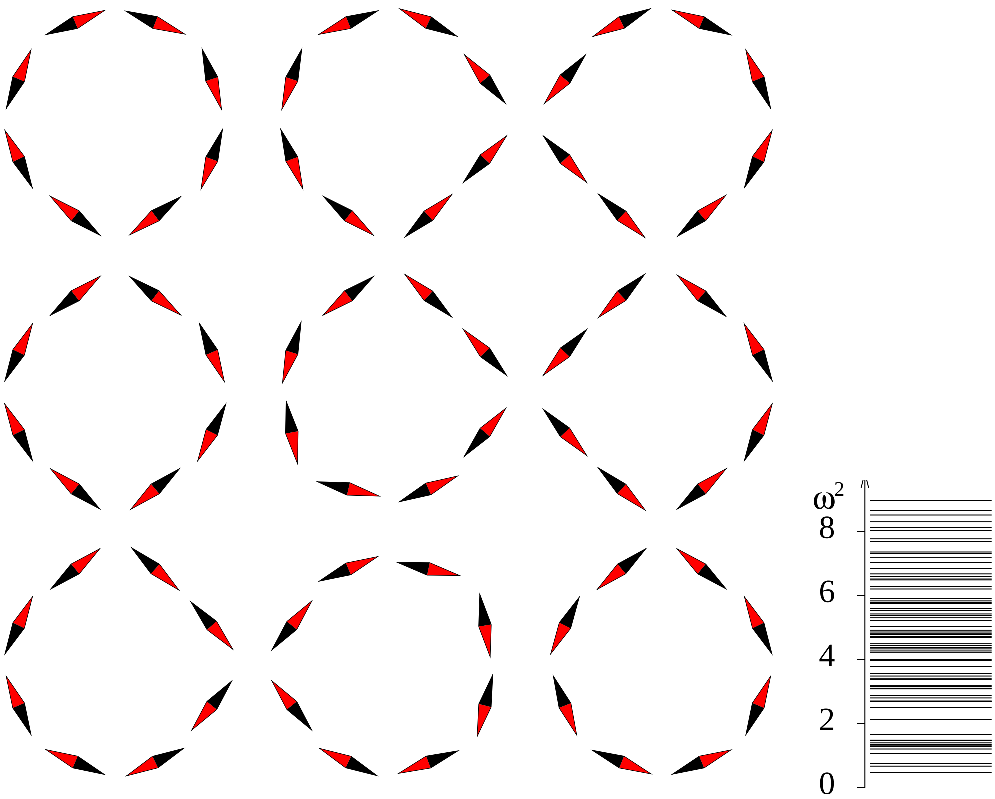
$E_4 = -165.40924$ (187 mal) $\omega_1^2 = 0.51898$



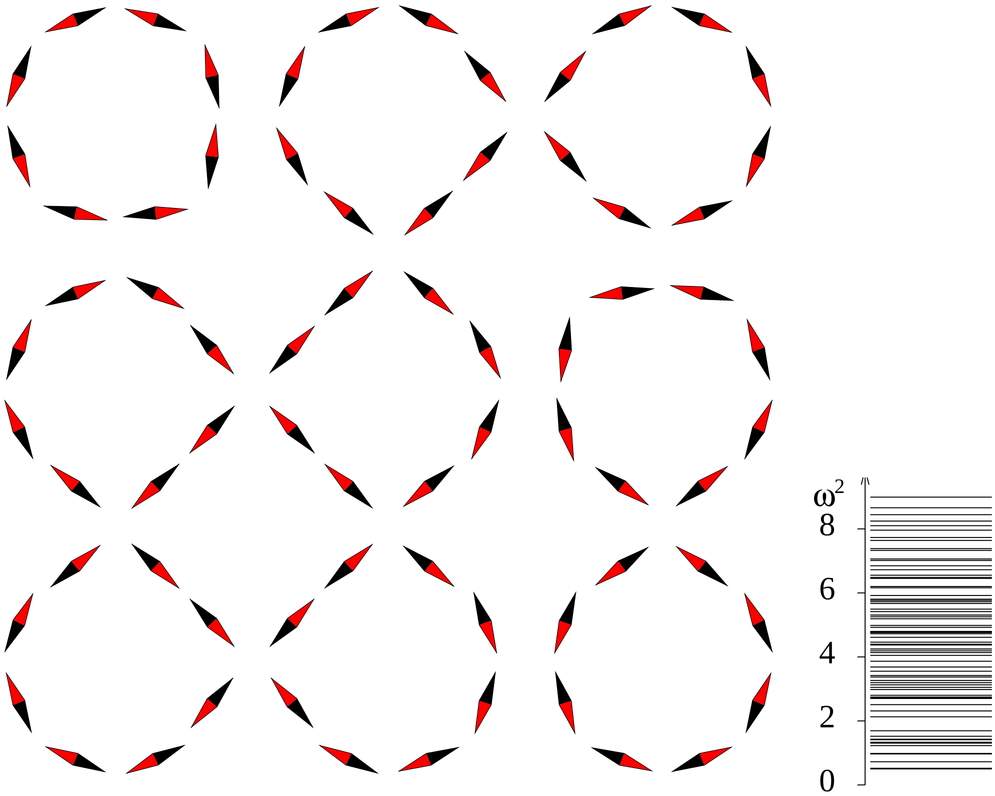
$E_5 = -165.26875$ (76 mal) $\omega_1^2 = 0.66640$



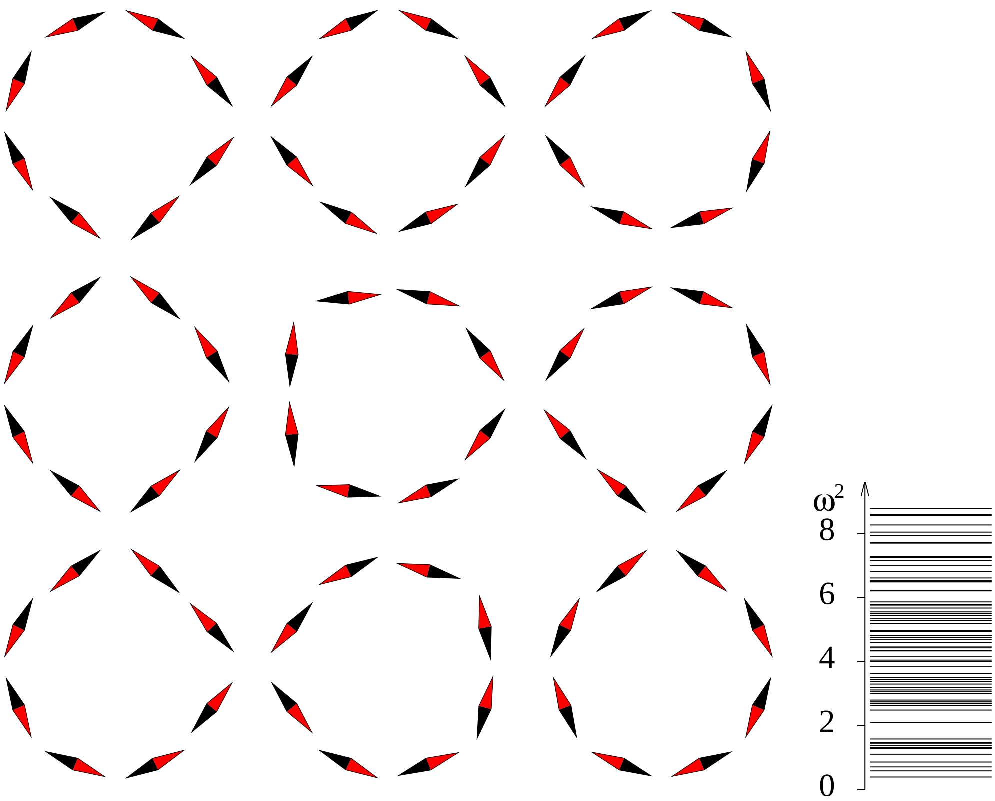
$E_6 = -163.93158$ (60 mal) $\omega_1^2 = 0.49170$



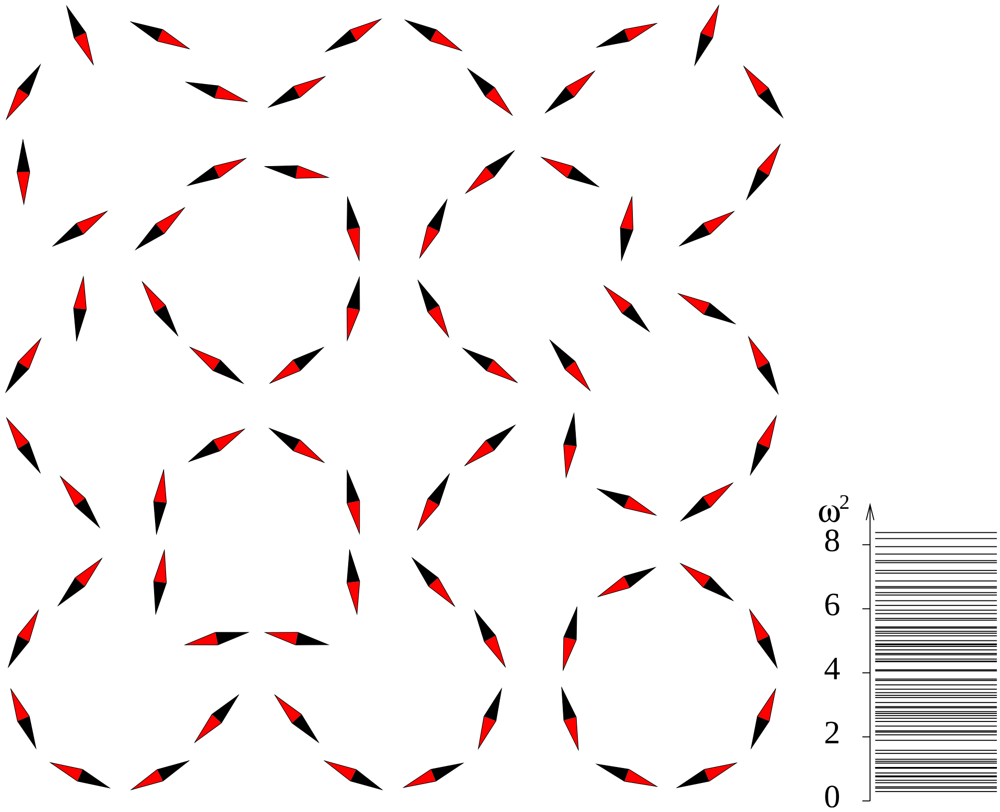
$E_9 = -163.59309$ (112 mal) $\omega_1^2 = 0.47518$



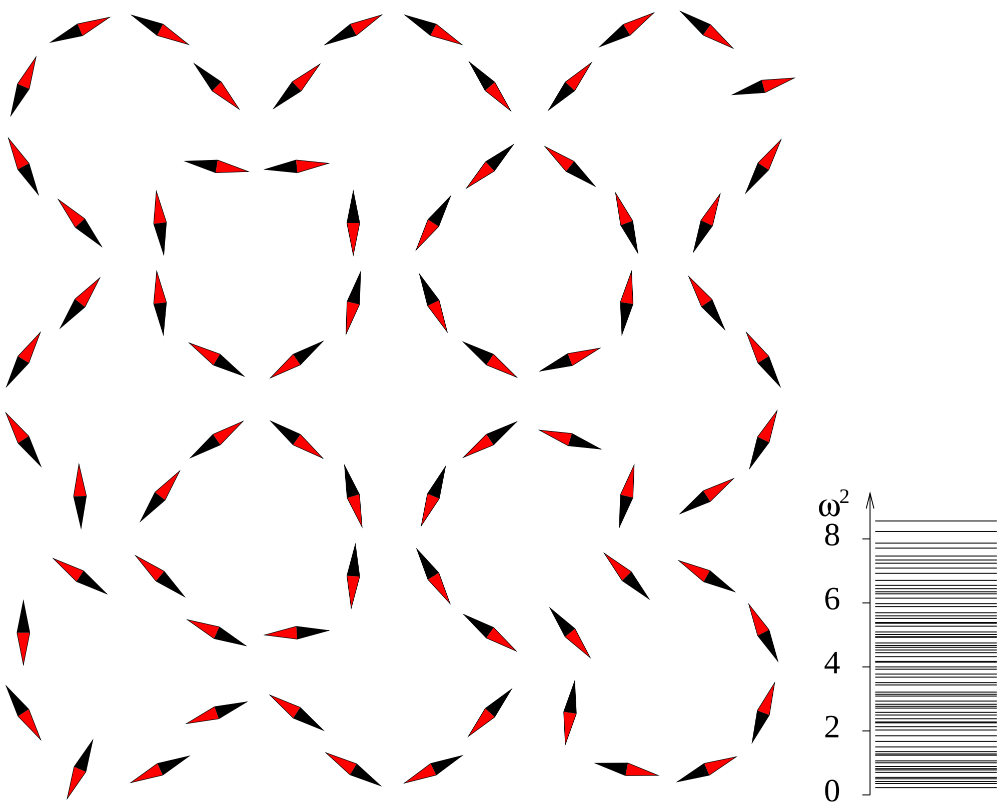
$E_{13} = -161.99391$ (97 mal) $\omega_1^2 = 0.50122$



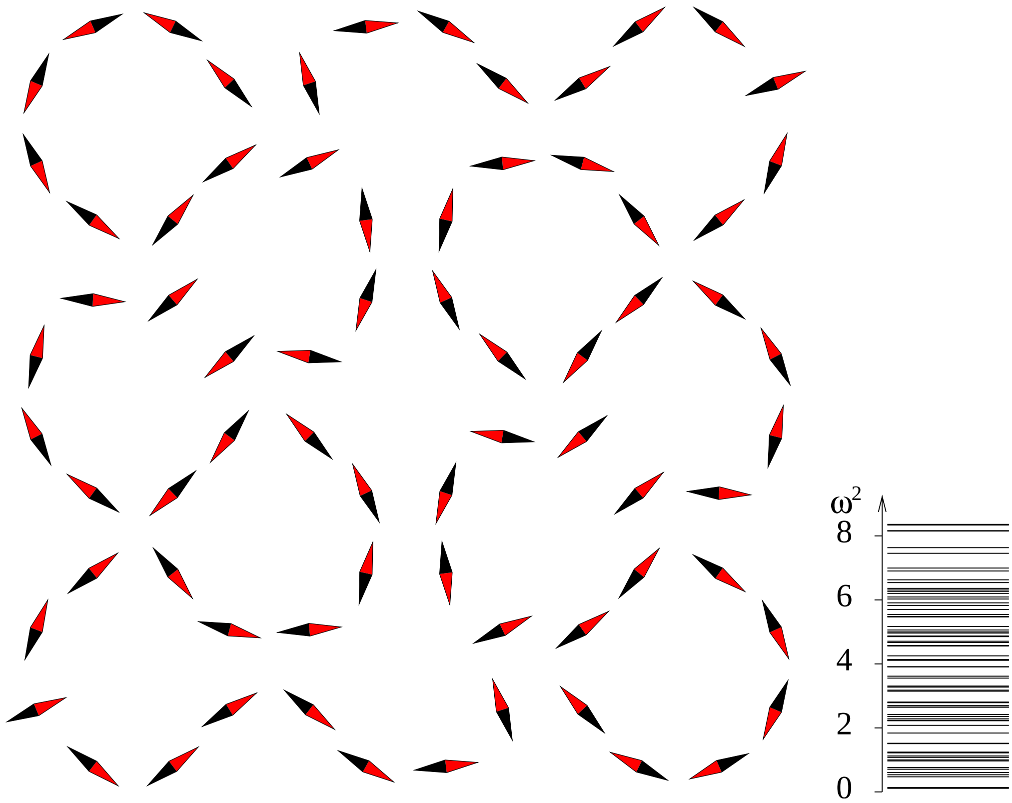
$E_{16} = -161.83701$ (86 mal) $\omega_1^2 = 0.39451$



$E_{421} = -141.71322$ (1 mal) $\omega_1^2 = 0.29273$

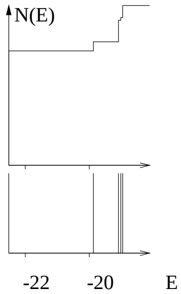


$E_{422} = -141.29538$ (1 mal) $\omega_1^2 = 0.22715$

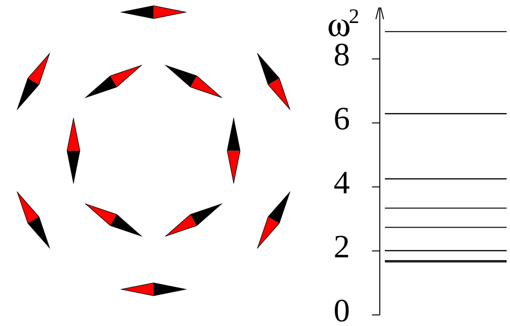


$E_{423} = -140.97499$ (1 mal) $\omega_1^2 = 0.11301$

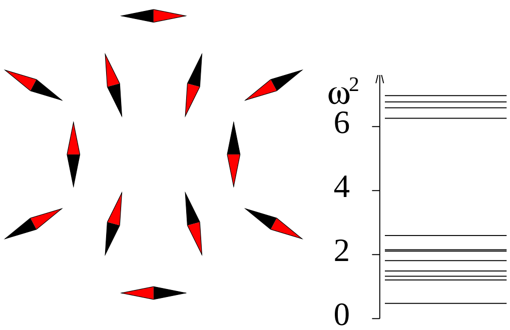
Davids-Stern



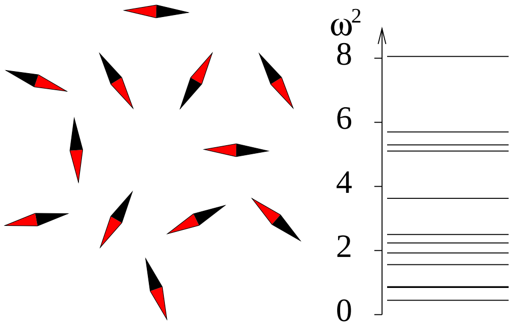
Anzahl Gitterpunkte: 12, Gefundene Energie-Niveaus: 5, Läufe: 1000



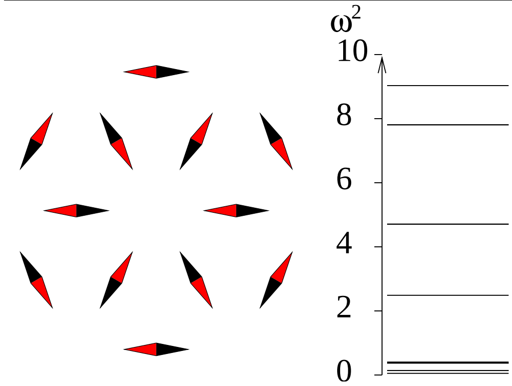
$E_1 = -22.51513$ (716 mal) $\omega_1^2 = 1.65998$



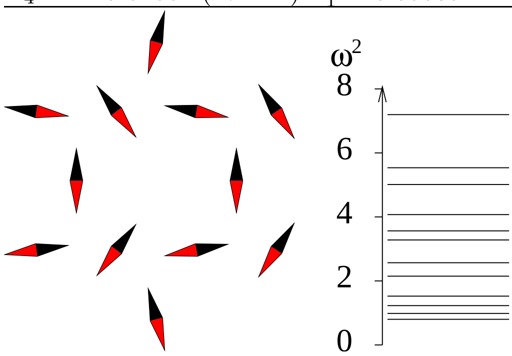
$E_2 = -19.87386$ (57 mal) $\omega_1^2 = 0.47599$



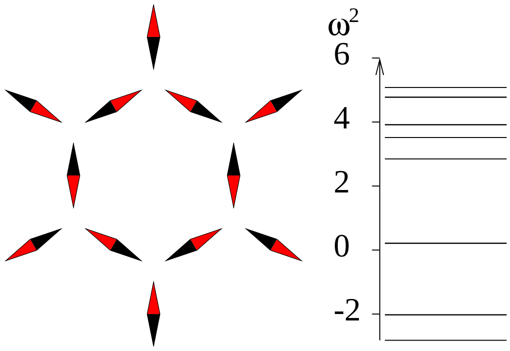
$E_3 = -19.08747$ (135 mal) $\omega_1^2 = 0.44844$



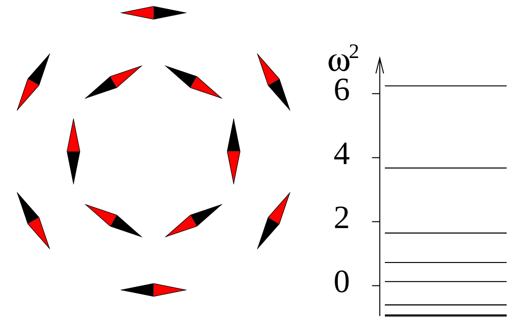
$E_4 = -19.01602$ (17 mal) $\omega_1^2 = 0.05039$



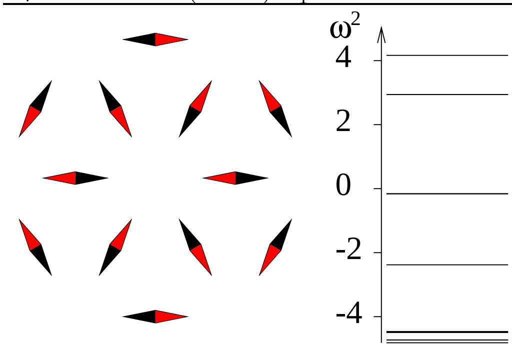
$E_5 = -18.95636$ (75 mal) $\omega_1^2 = 0.80159$



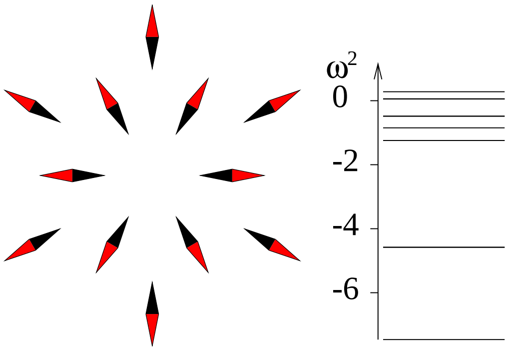
$E_6 = -11.19303$ (0 mal) $\omega_1^2 = -2.82115$



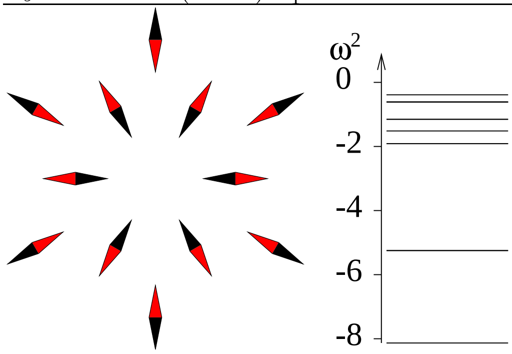
$E_7 = -6.86296$ (0 mal) $\omega_1^2 = -0.94872$



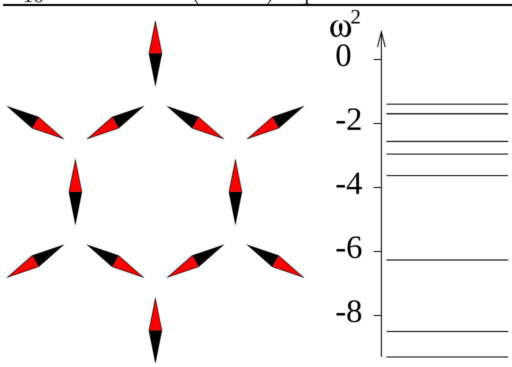
$E_8 = 10.18770$ (0 mal) $\omega_1^2 = -4.81690$



$E_9 = 10.24224$ (0 mal) $\omega_1^2 = -7.46350$

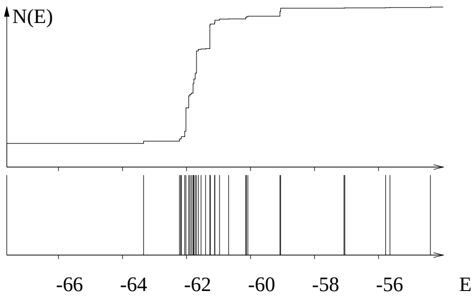


$E_{10} = 14.25242$ (0 mal) $\omega_1^2 = -8.13187$

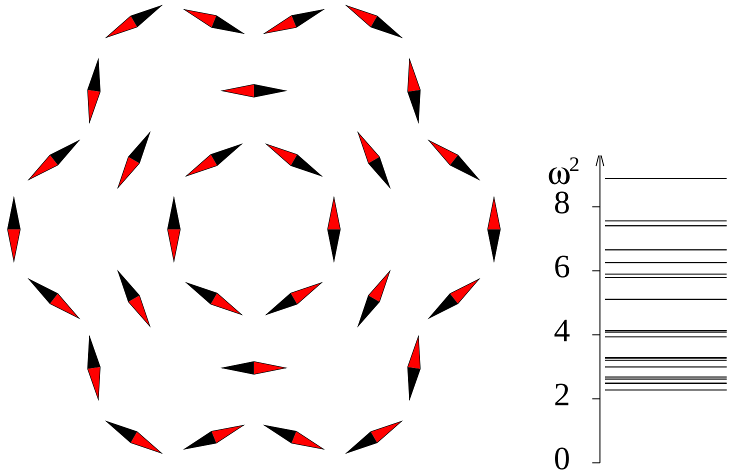


$E_{11} = 27.65863$ (0 mal) $\omega_1^2 = -9.29643$

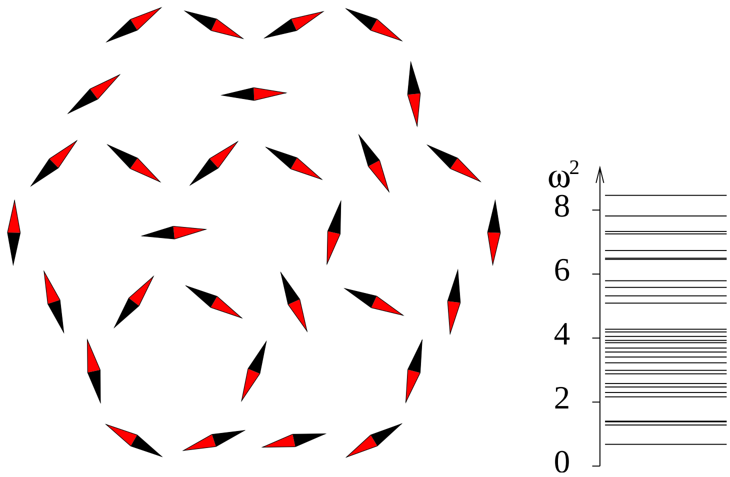
Kagome-Gitter (2,2)



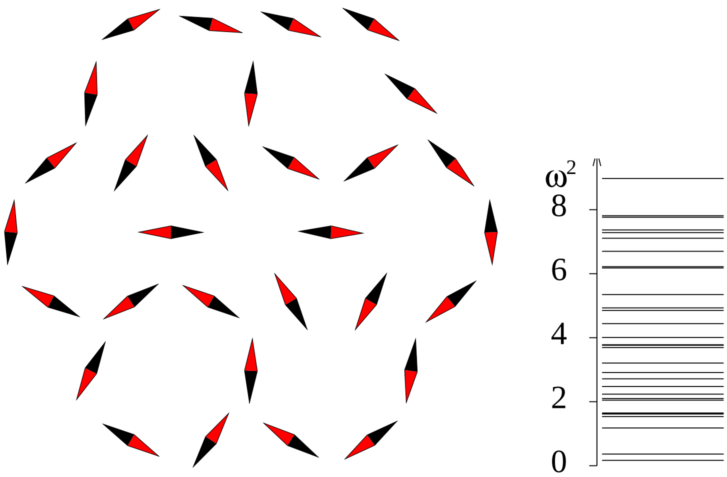
Anzahl Gitterpunkte: 30, Gefundene Energie-Niveaus: 34, Läufe: 1000



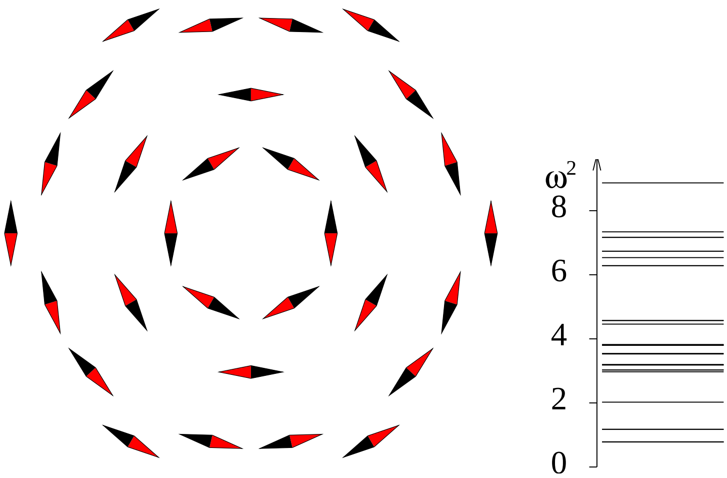
$E_1 = -67.61515$ (148 mal) $\omega_1^2 = 2.27447$



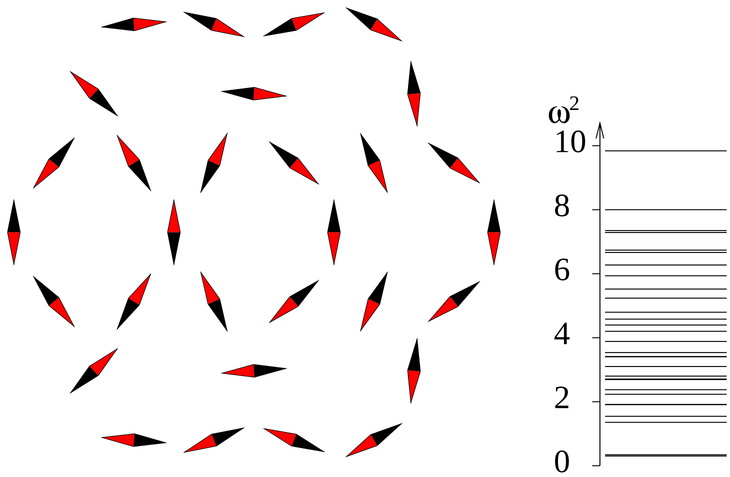
$E_2 = -63.33938$ (14 mal) $\omega_1^2 = 0.67902$



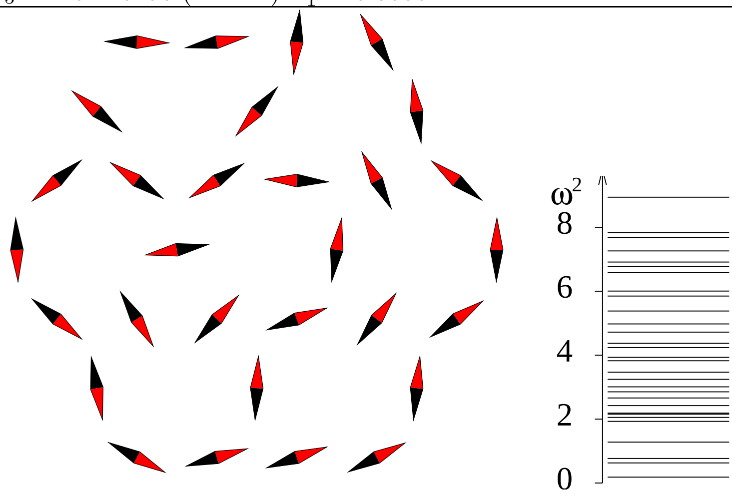
$E_3 = -62.21961$ (13 mal) $\omega_1^2 = 0.16783$



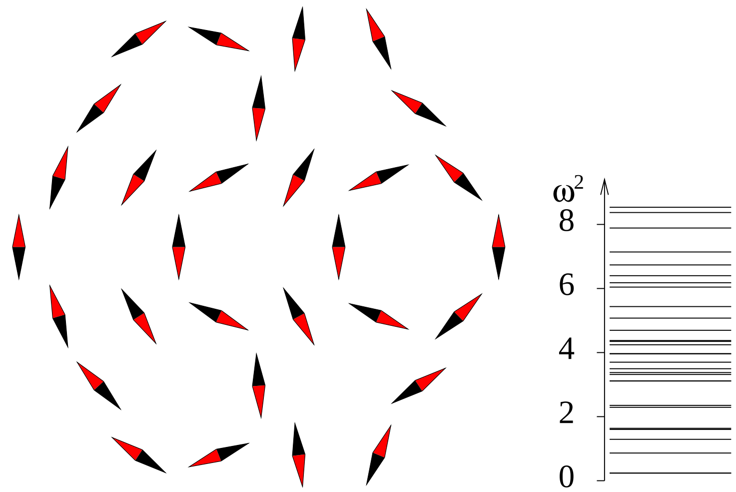
$E_4 = -62.17988$ (3 mal) $\omega_1^2 = 0.78171$



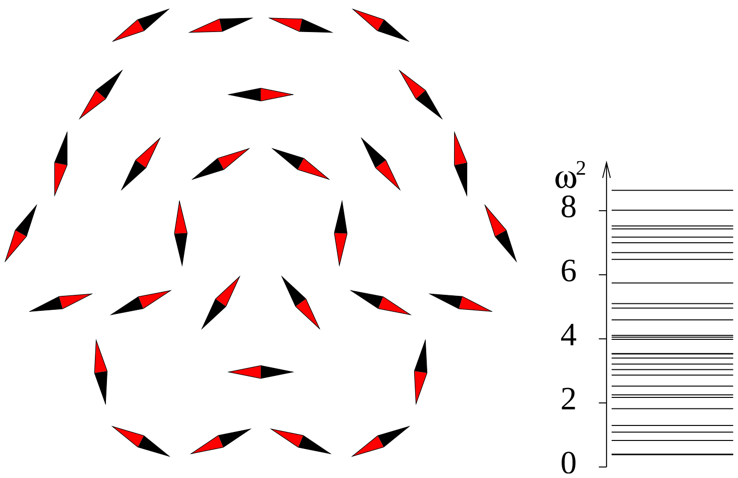
$E_5 = -62.16293$ (12 mal) $\omega_1^2 = 0.30362$



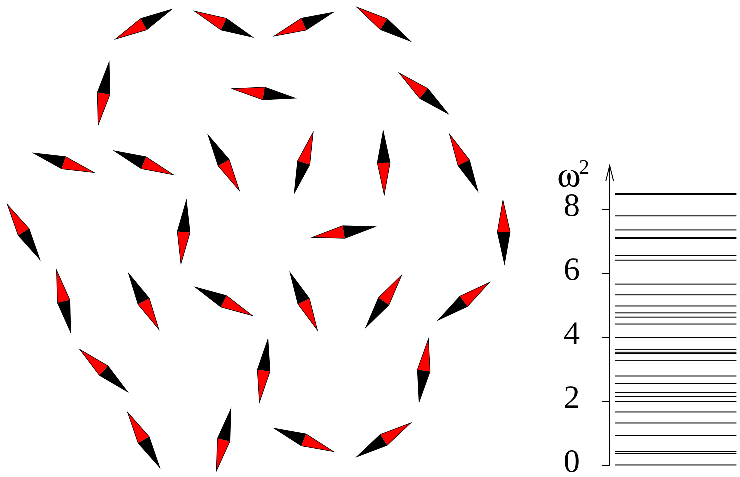
$E_6 = -62.05415$ (34 mal) $\omega_1^2 = 0.18376$



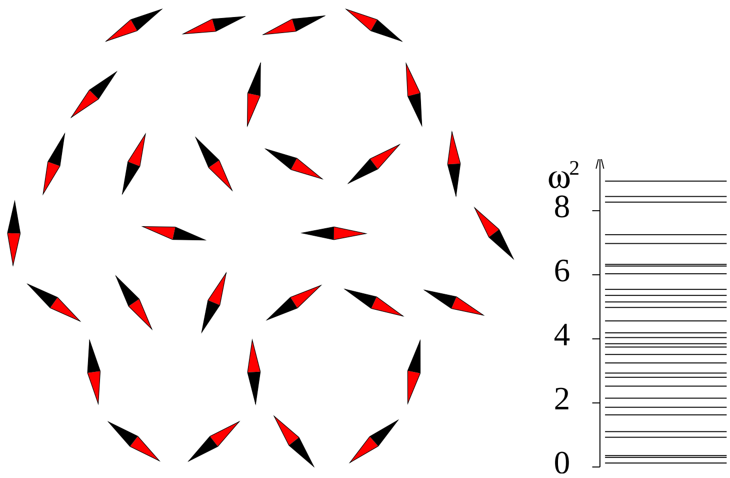
$E_7 = -62.01858$ (146 mal) $\omega_1^2 = 0.23716$



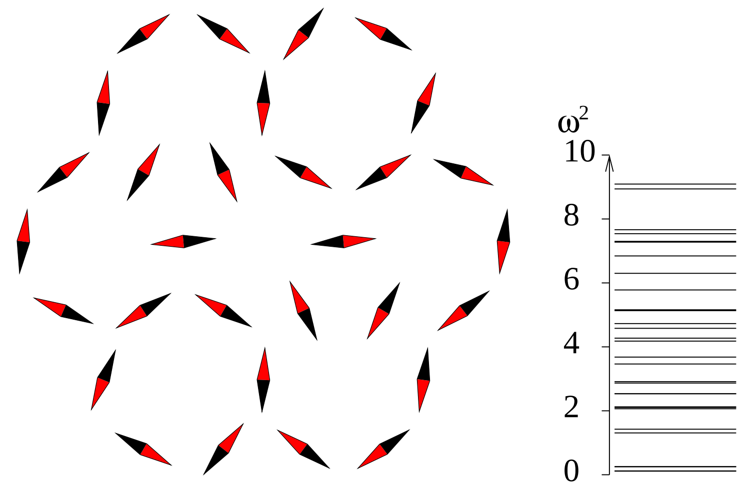
$E_8 = -61.93061$ (75 mal) $\omega_1^2 = 0.38378$



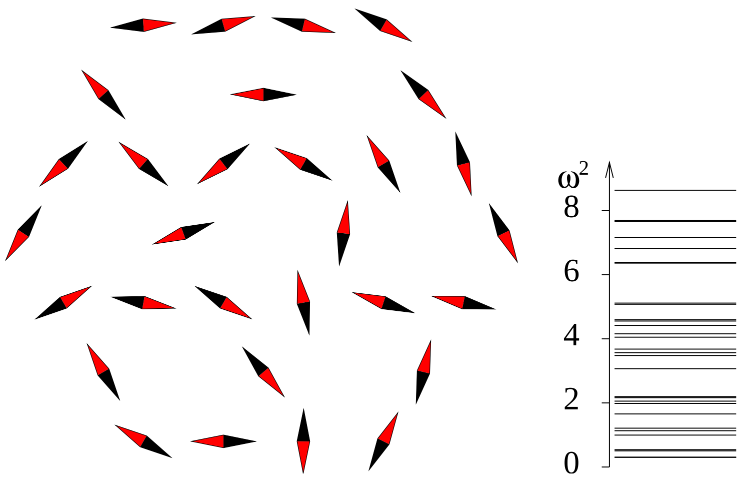
$E_{11} = -61.79569$ (55 mal) $\omega_1^2 = 0.01668$



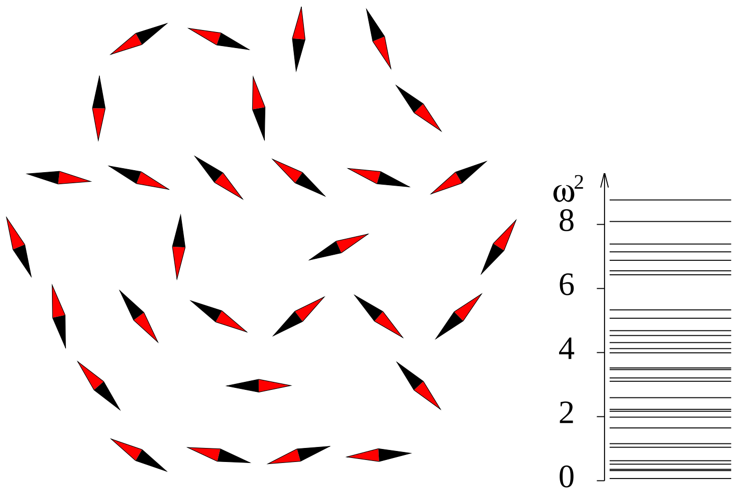
$E_{15} = -61.68860$ (139 mal) $\omega_1^2 = 0.12398$



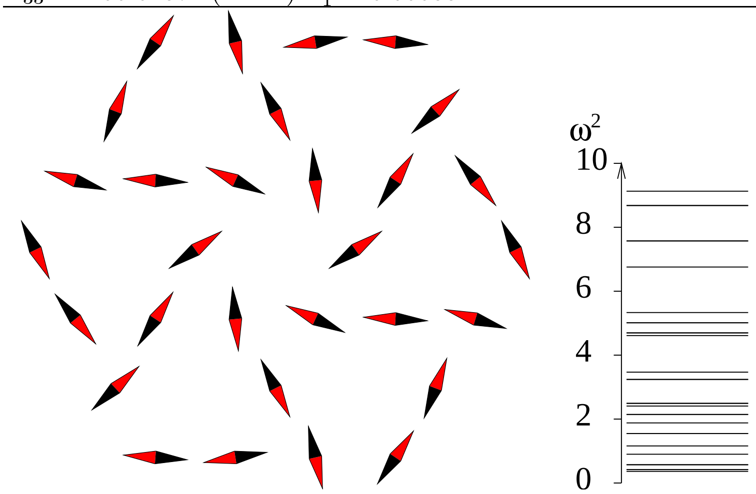
$E_{19} = -61.26979$ (149 mal) $\omega_1^2 = 0.11119$



$E_{32} = -55.77732$ (1 mal) $\omega_1^2 = 0.30117$

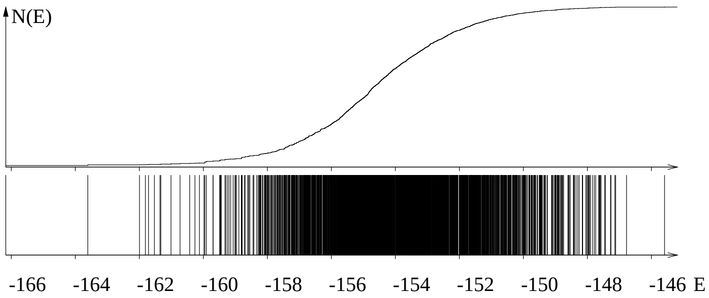


$E_{33} = -55.64372$ (1 mal) $\omega_1^2 = 0.06683$

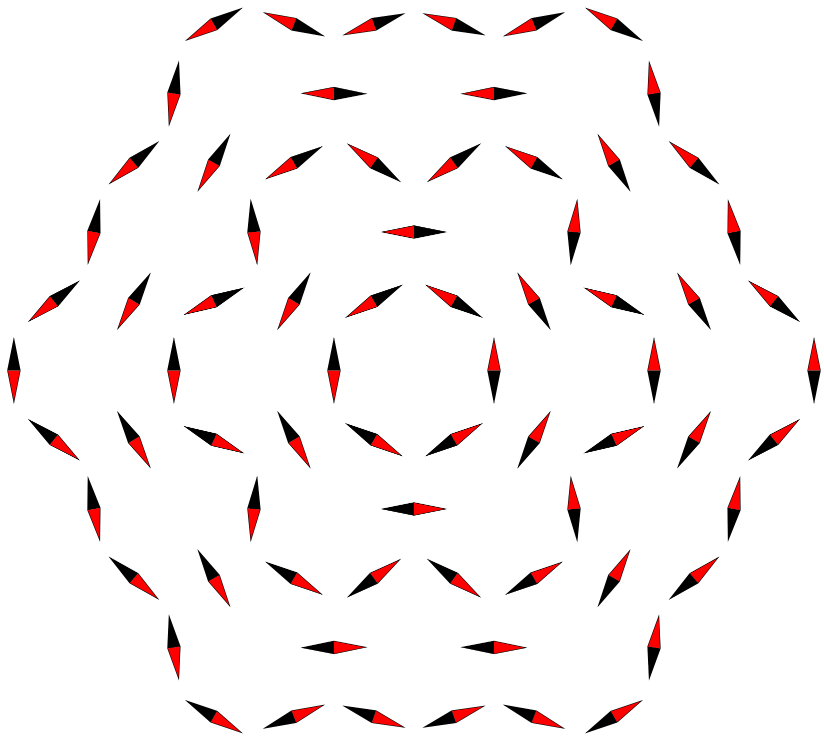


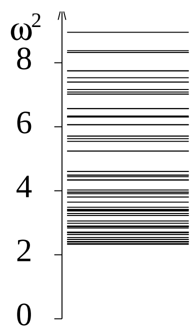
$E_{34} = -54.37989$ (3 mal) $\omega_1^2 = 0.36204$

Kagome-Gitter (3,3)

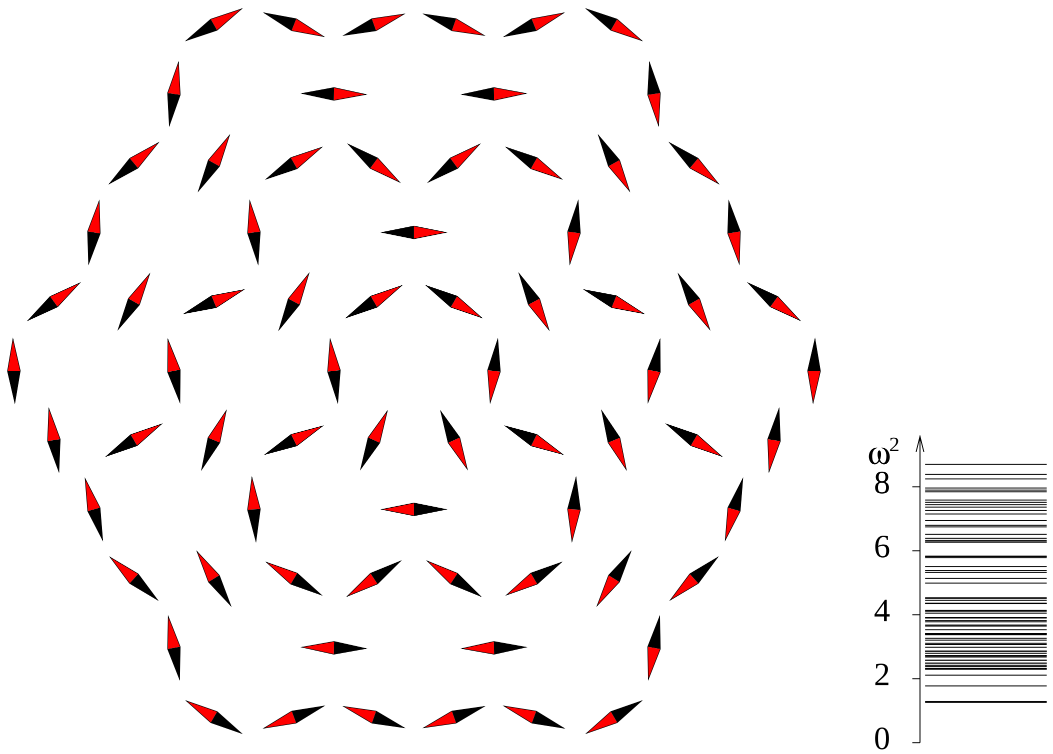


Anzahl Gitterpunkte: 72, Gefundene Energie-Niveaus: 2106, Läufe: 3000

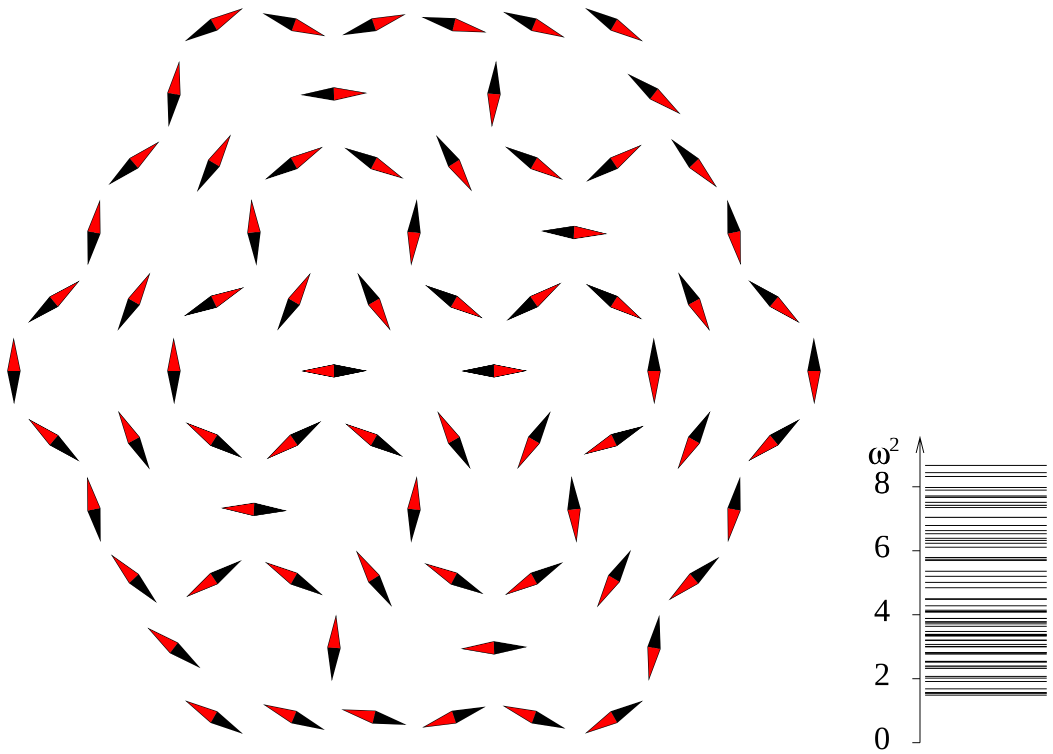




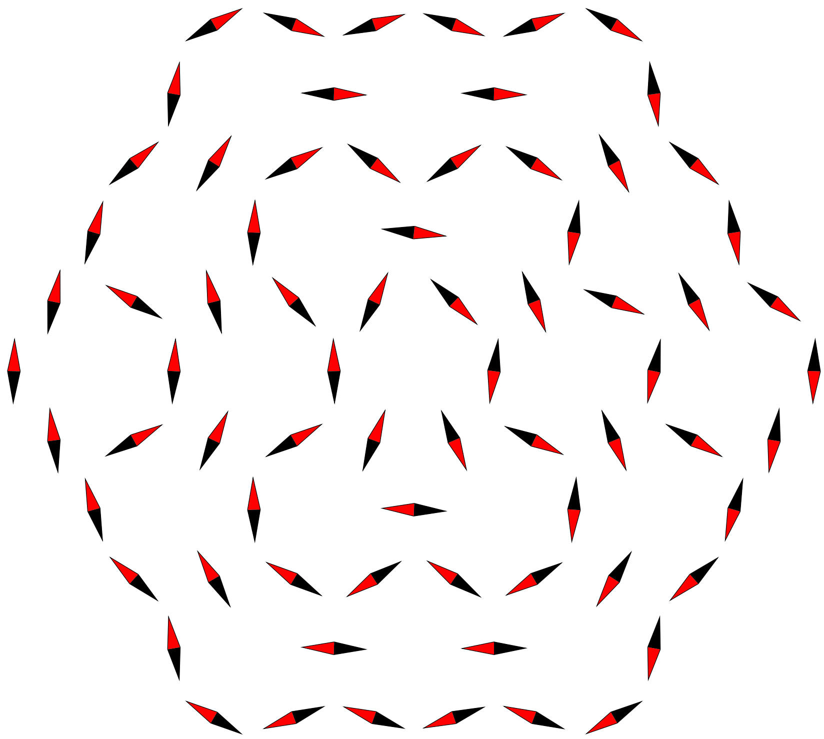
$E_1 = -166.17154$ (30 mal) $\omega_1^2 = 2.32816$

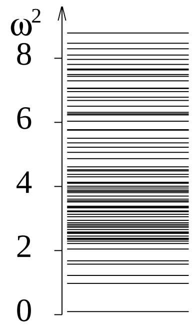


$E_2 = -163.60901$ (12 mal) $\omega_1^2 = 1.25916$

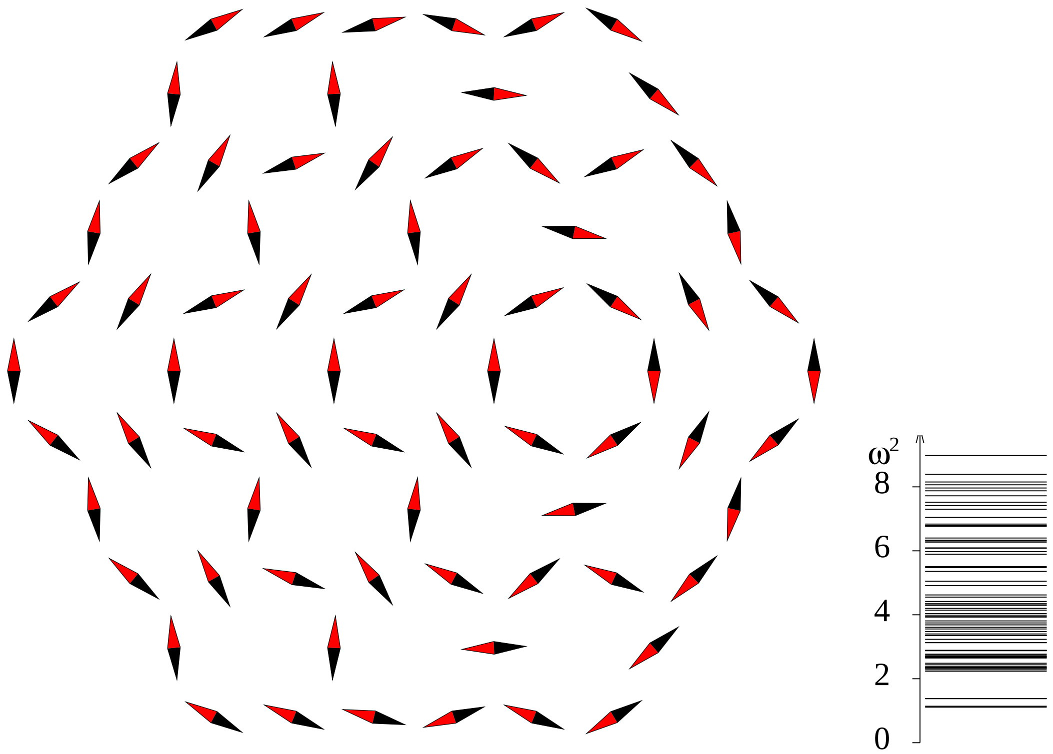


$E_3 = -161.99506$ (2 mal) $\omega_1^2 = 1.48800$

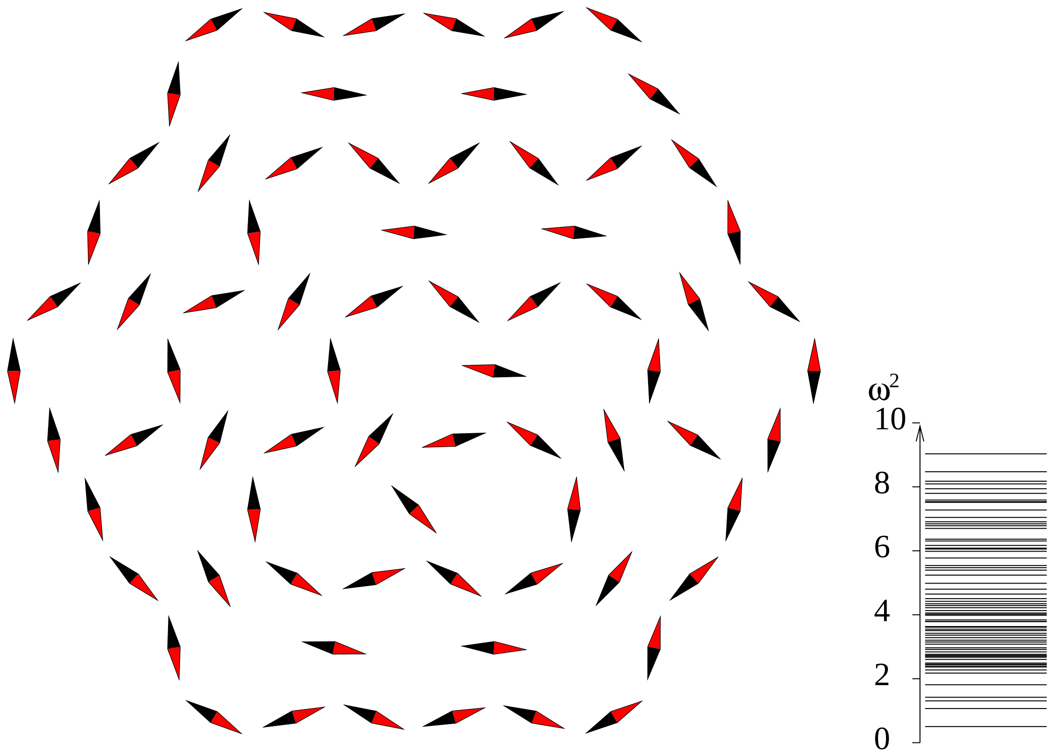




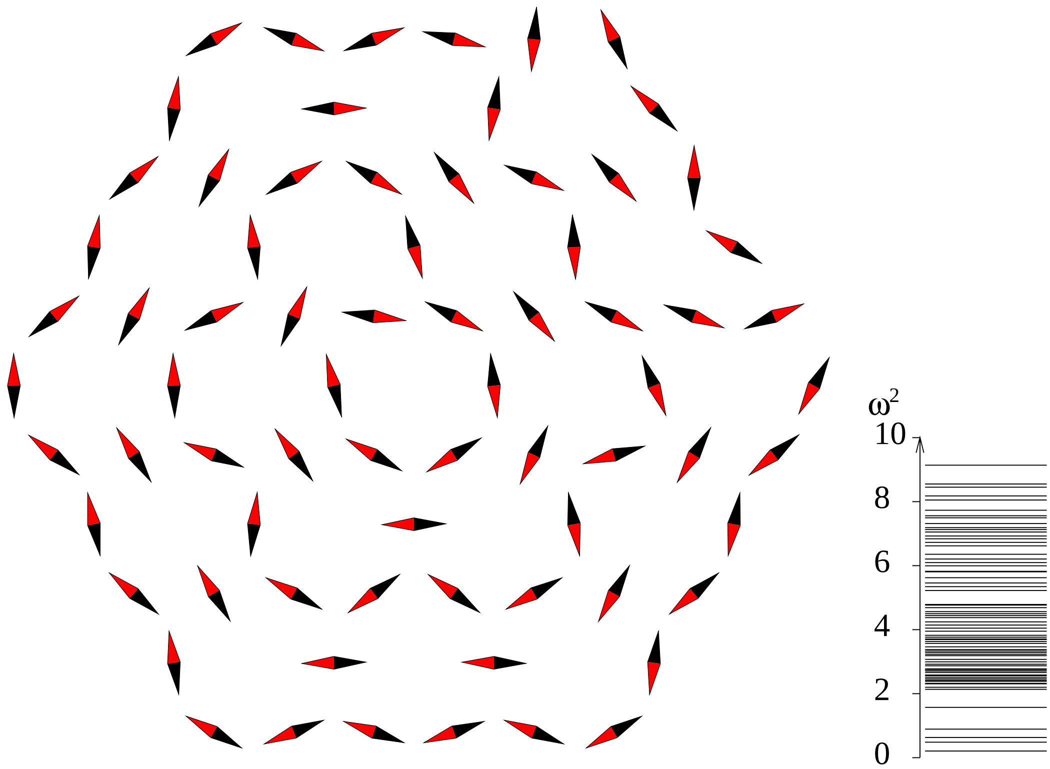
$E_4 = -161.80859$ (1 mal) $\omega_1^2 = 0.09406$



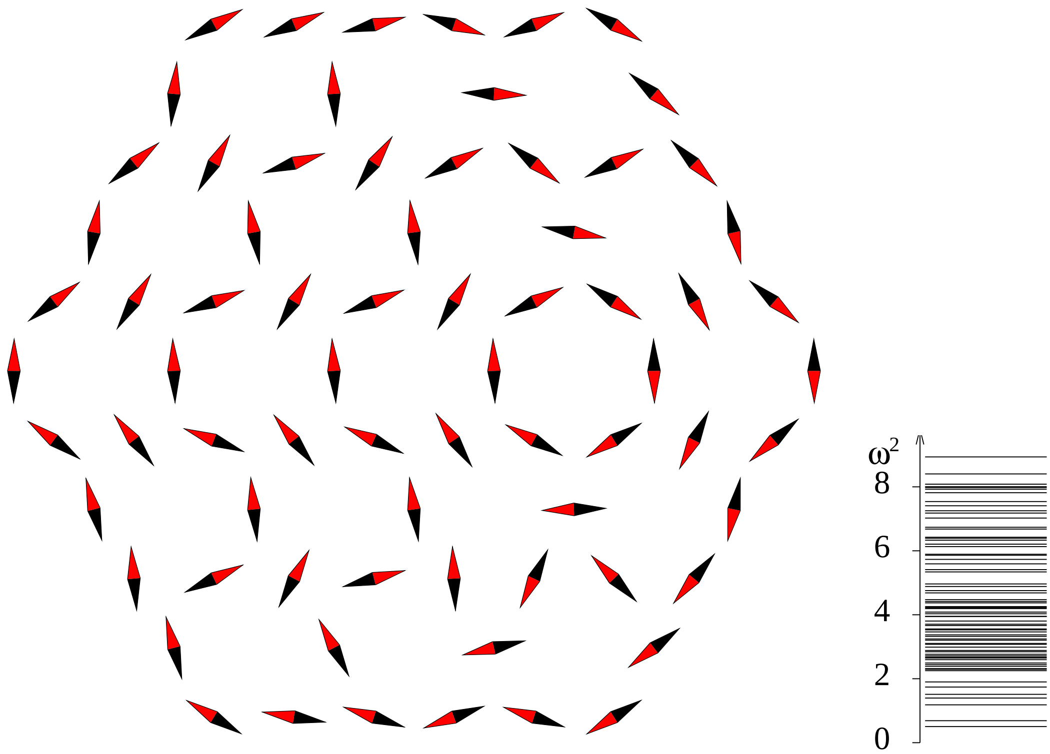
$E_5 = -161.71252$ (4 mal) $\omega_1^2 = 1.11081$



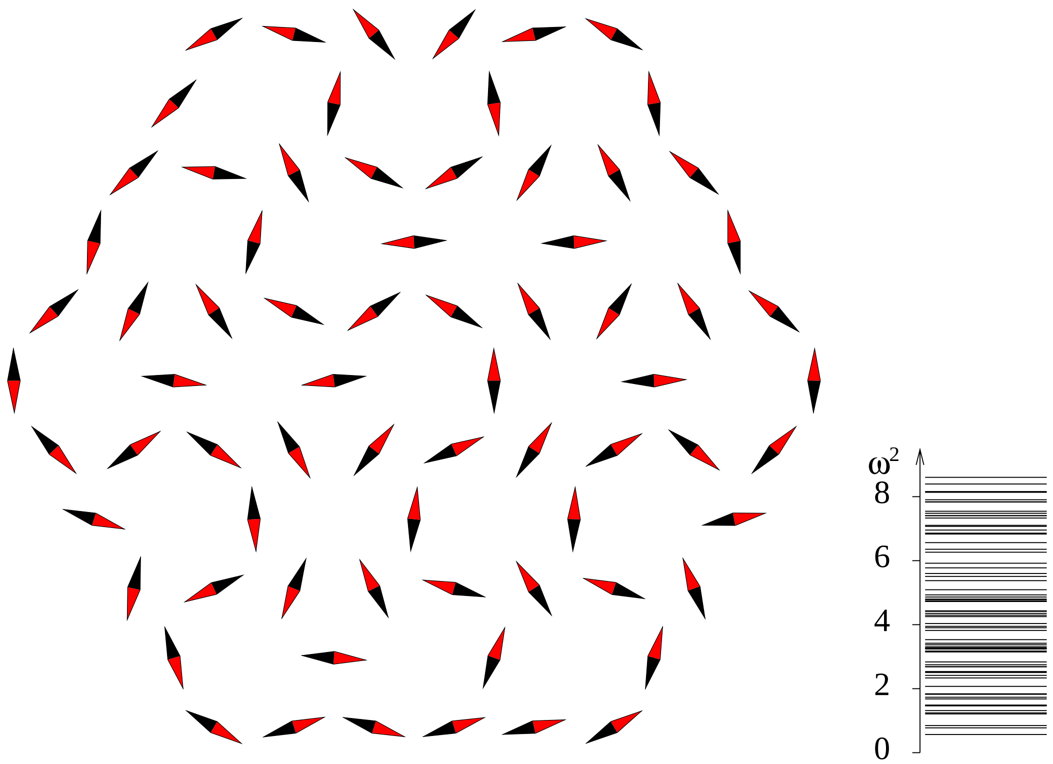
$E_6 = -161.52882$ (1 mal) $\omega_1^2 = 0.50237$



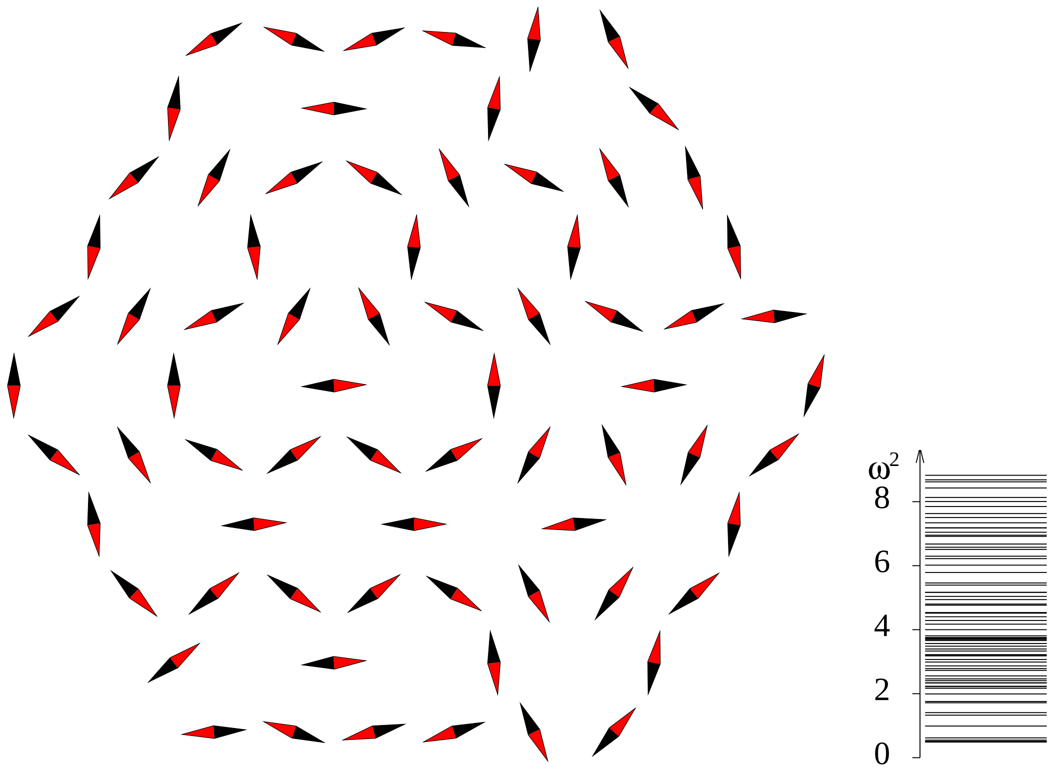
$E_{15} = -159.95249$ (19 mal) $\omega_1^2 = 0.20742$



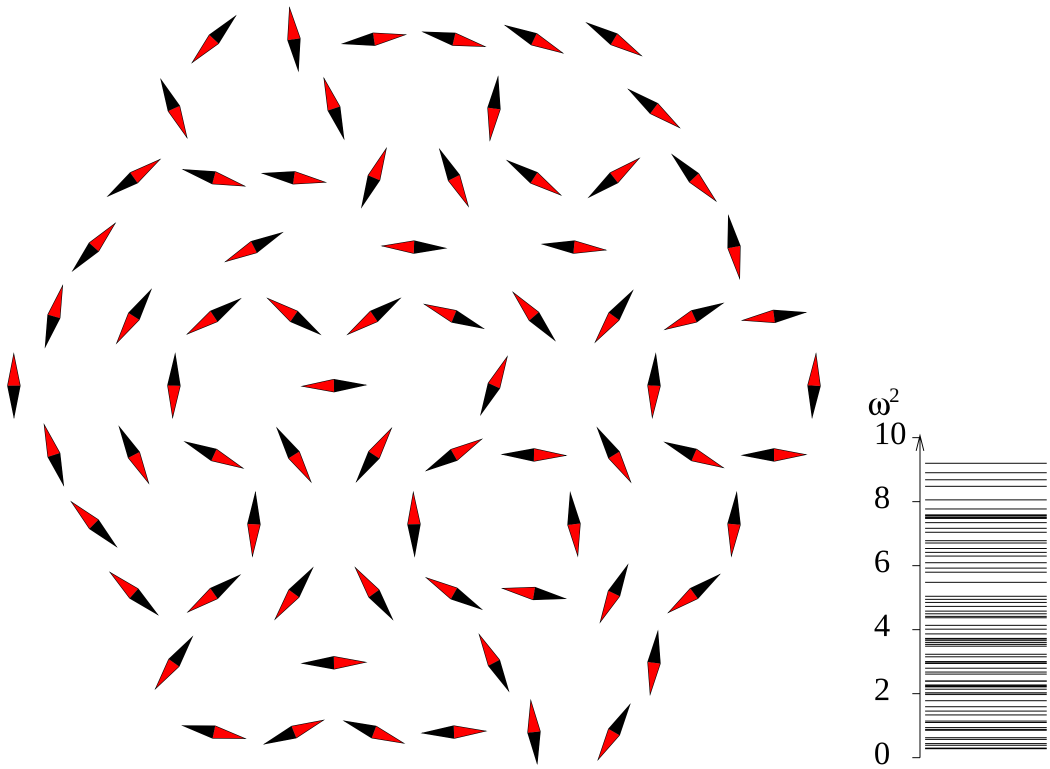
$E_{16} = -159.90427$ (12 mal) $\omega_1^2 = 0.50347$



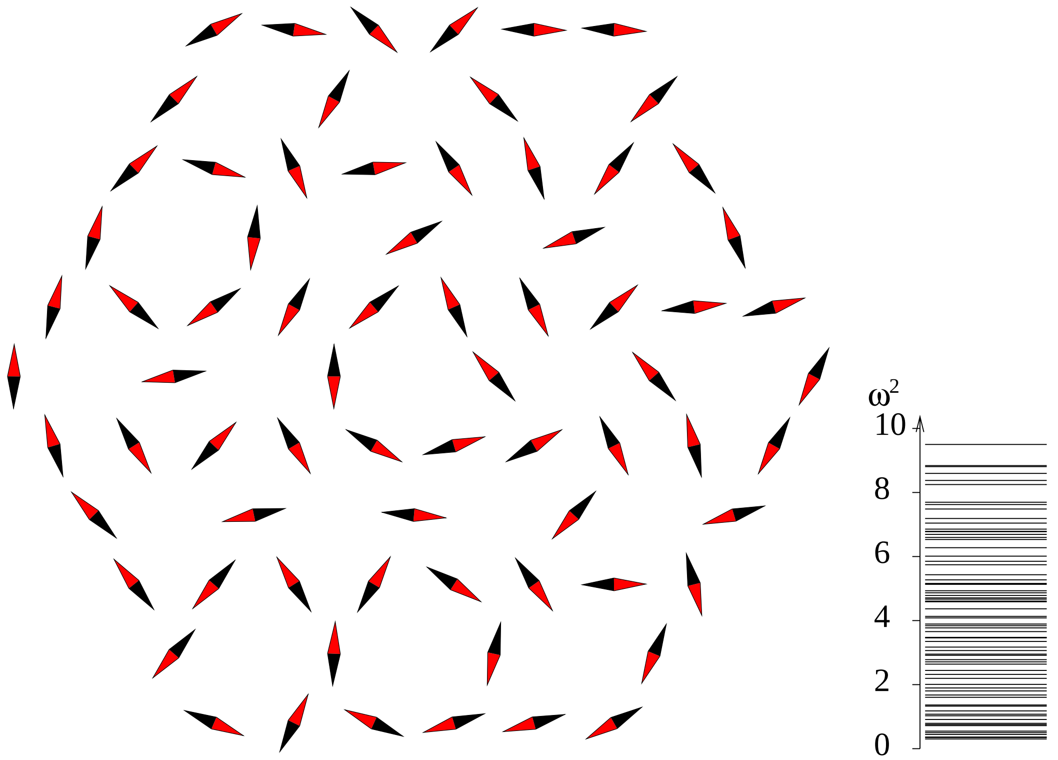
$E_{34} = -158.81213$ (14 mal) $\omega_1^2 = 0.56970$



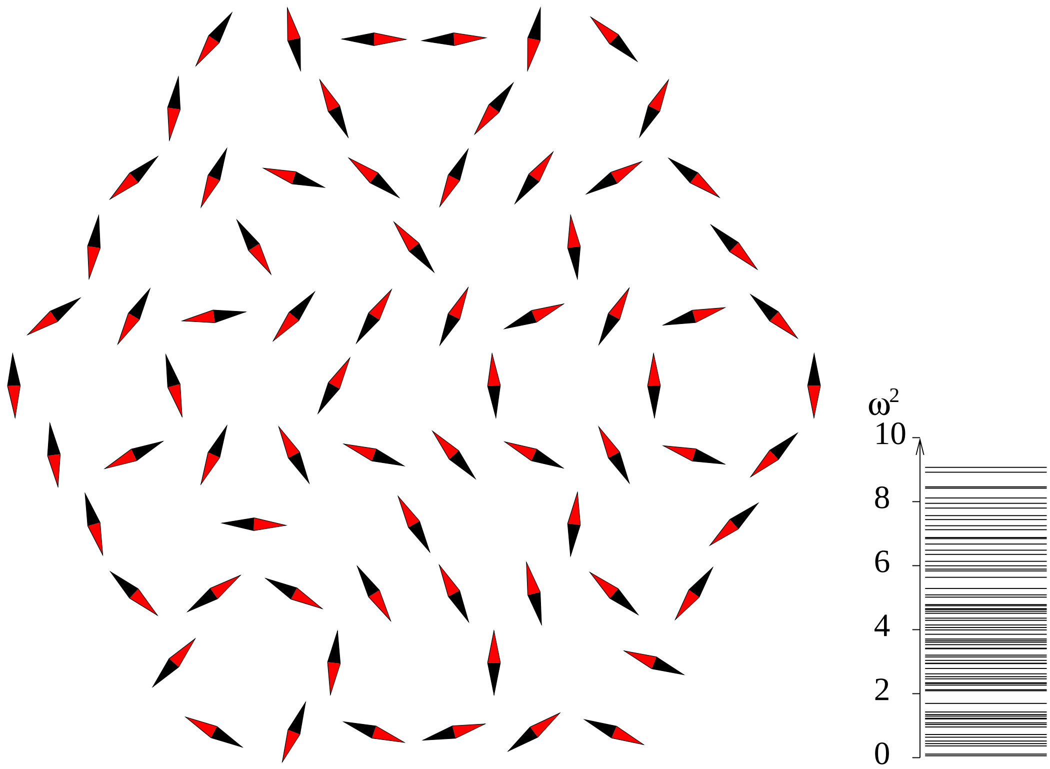
$E_{149} = -157.01914$ (14 mal) $\omega_1^2 = 0.48880$



$E_{2104} = -147.11765$ (1 mal) $\omega_1^2 = 0.28196$

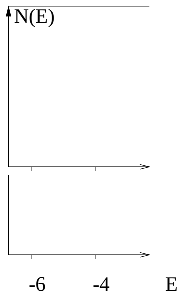


$E_{2105} = -146.77655$ (1 mal) $\omega_1^2 = 0.30377$

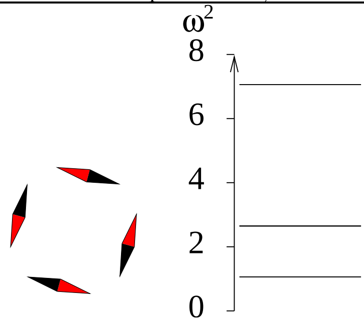


$E_{2106} = -145.58973$ (1 mal) $\omega_1^2 = 0.06179$

Vierdrei-Gitter(1,1)

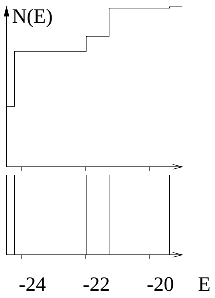


Anzahl Gitterpunkte: 4, Gefundene Energie-Niveaus: 1, Läufe: 1000

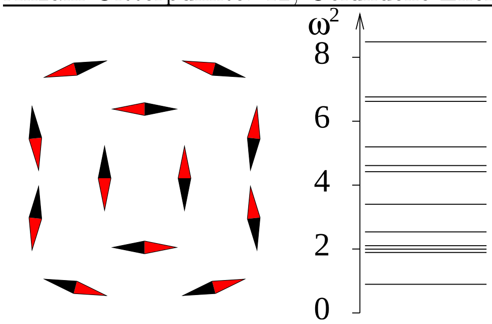


$E_1 = -6.70711$ (1000 mal) $\omega_1^2 = 1.06066$

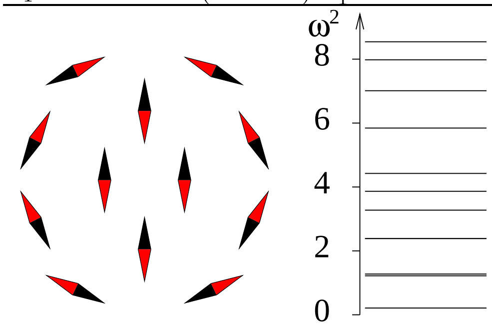
Vierdrei-Gitter(2,2)



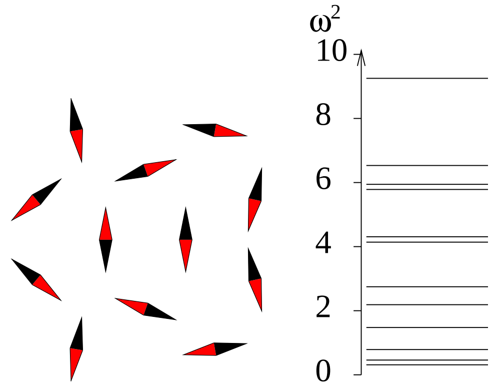
Anzahl Gitterpunkte: 12, Gefundene Energie-Niveaus: 5, Läufe: 1000



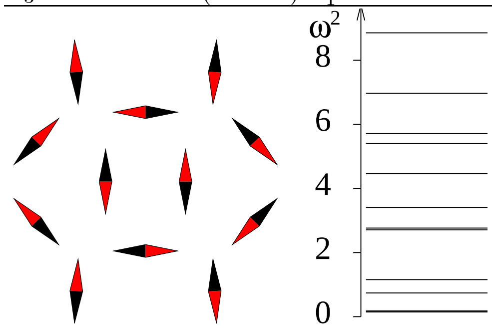
$E_1 = -24.45994$ (378 mal) $\omega_1^2 = 0.89609$



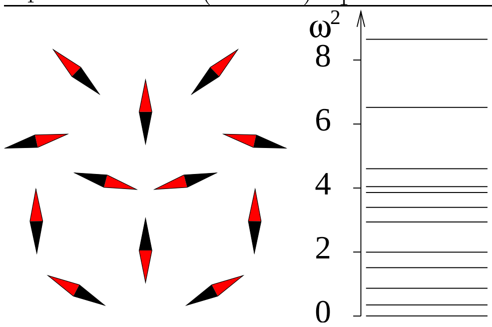
$E_2 = -24.21329$ (344 mal) $\omega_1^2 = 0.21389$



$E_3 = -21.96906$ (94 mal) $\omega_1^2 = 0.31261$

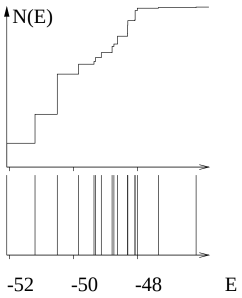


$E_4 = -21.25372$ (176 mal) $\omega_1^2 = 0.14709$

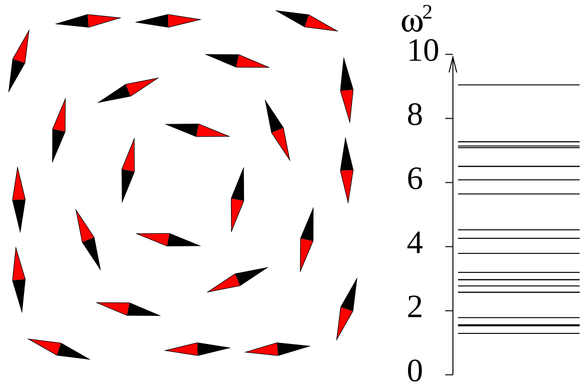


$E_5 = -19.37038$ (8 mal) $\omega_1^2 = 0.00568$

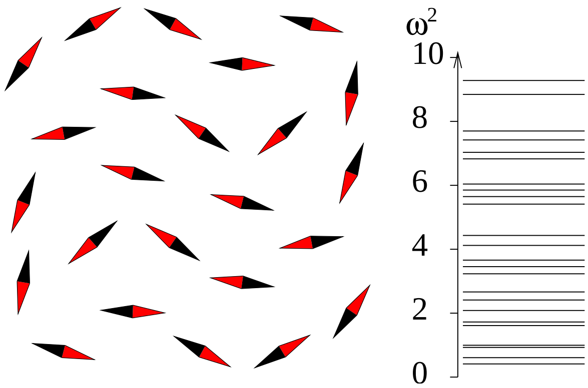
Vierdrei-Gitter(3,3)



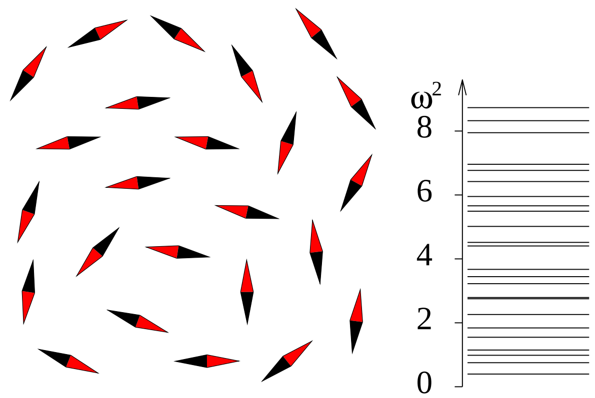
Anzahl Gitterpunkte: 24, Gefundene Energie-Niveaus: 18, Läufe: 1000



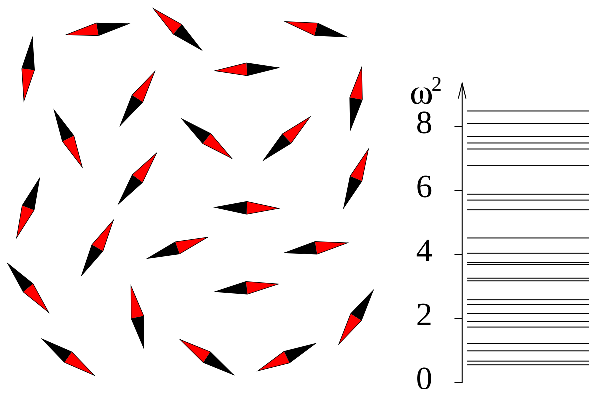
$E_1 = -52.08184$ (149 mal) $\omega_1^2 = 1.29129$



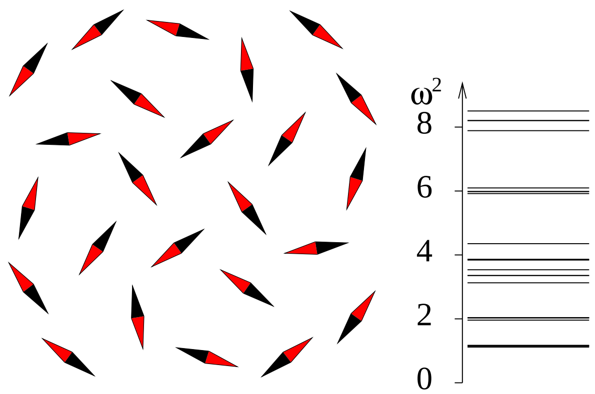
$E_2 = -51.19861$ (181 mal) $\omega_1^2 = 0.41329$



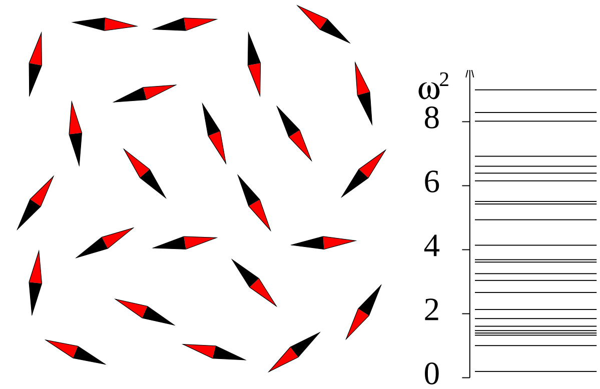
$E_3 = -50.50500$ (251 mal) $\omega_1^2 = 0.39689$



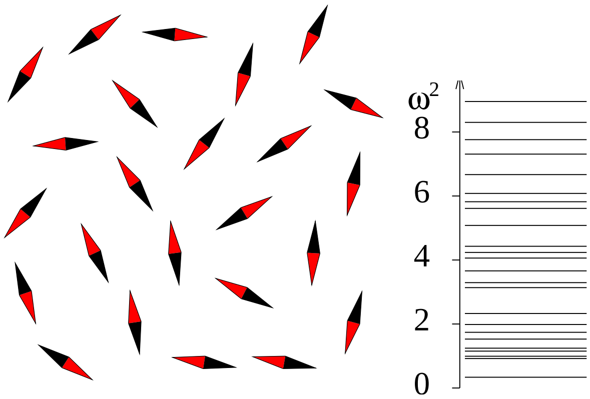
$E_4 = -49.83927$ (62 mal) $\omega_1^2 = 0.55836$



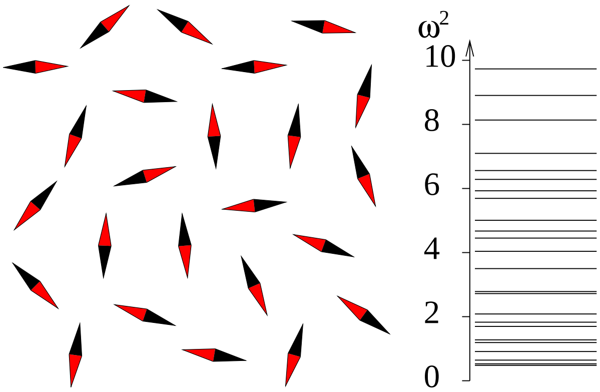
$E_5 = -49.35575$ (17 mal) $\omega_1^2 = 1.11455$



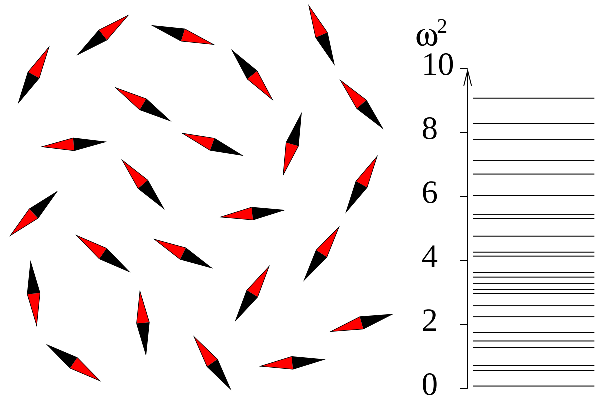
$E_6 = -49.31066$ (24 mal) $\omega_1^2 = 0.19779$



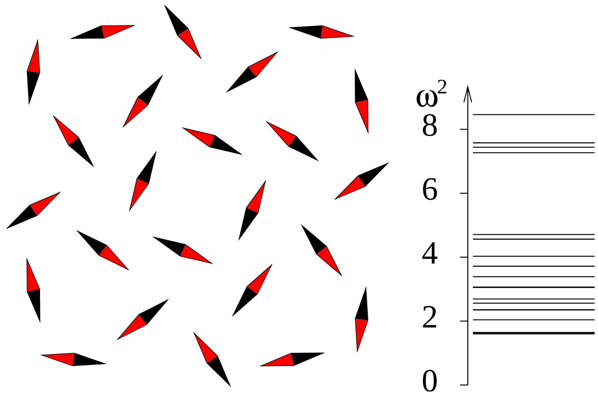
$E_{12} = -48.30540$ (53 mal) $\omega_1^2 = 0.33408$



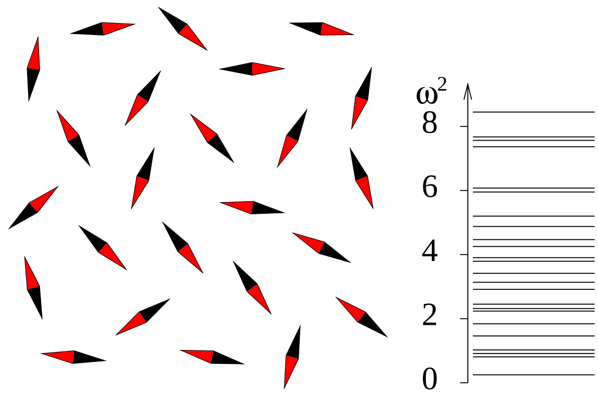
$E_{15} = -48.07066$ (58 mal) $\omega_1^2 = 0.47938$



$E_{16} = -48.00400$ (15 mal) $\omega_1^2 = 0.07578$

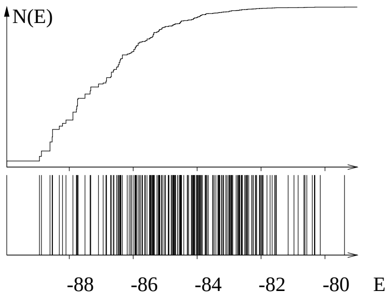


$E_{17} = -47.34372$ (4 mal) $\omega_1^2 = 1.60142$

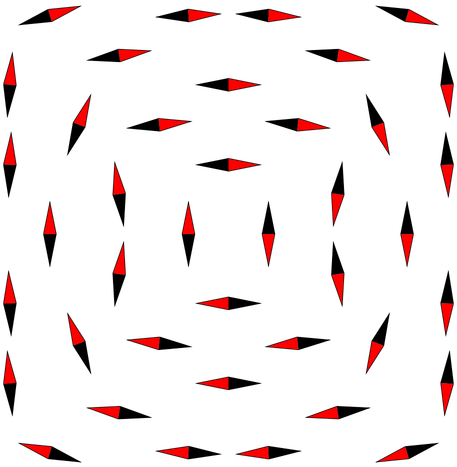


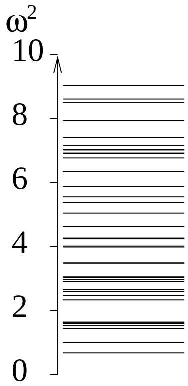
$E_{18} = -46.16757$ (3 mal) $\omega_1^2 = 0.24762$

Vierdrei-Gitter(4,4)

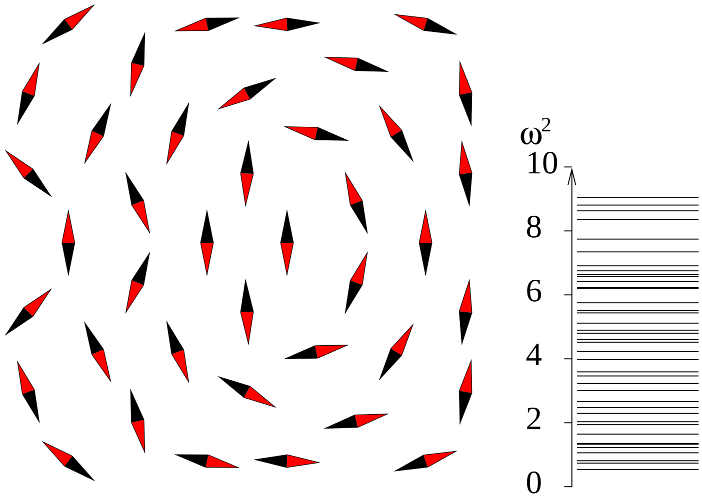


Anzahl Gitterpunkte: 40, Gefundene Energie-Niveaus: 213, Läufe: 3000

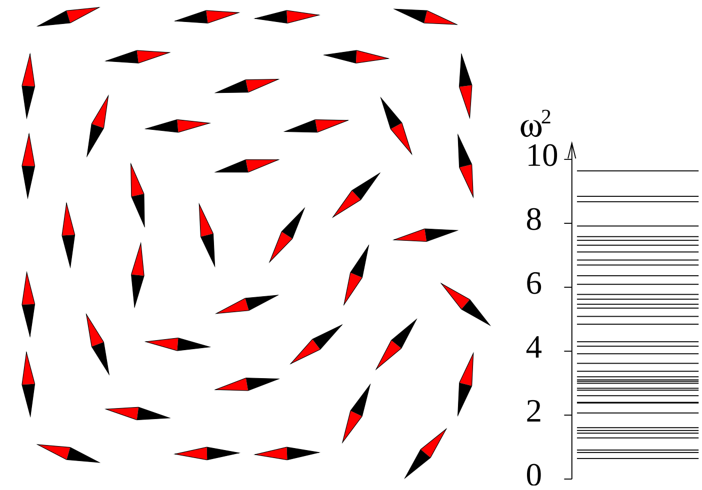




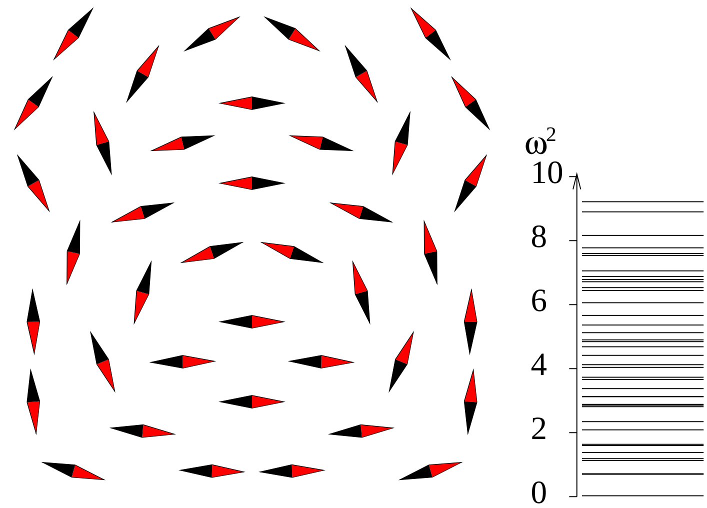
$E_1 = -89.95593$ (114 mal) $\omega_1^2 = 0.67796$



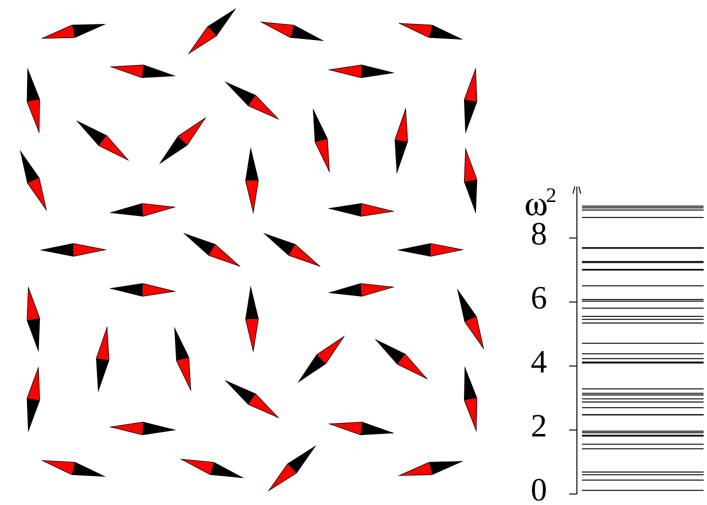
$E_2 = -88.93232$ (87 mal) $\omega_1^2 = 0.54050$



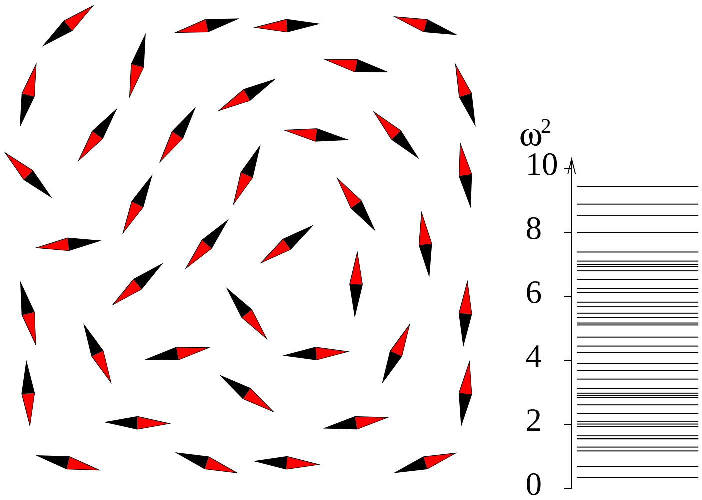
$E_3 = -88.86973$ (101 mal) $\omega_1^2 = 0.64286$



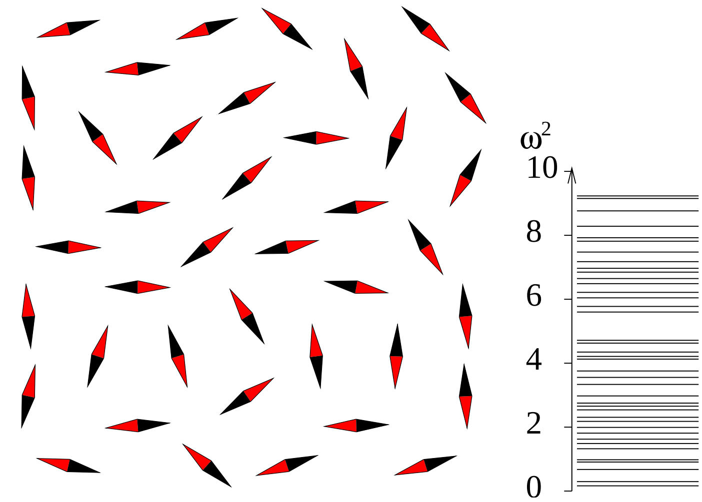
$E_4 = -88.60254$ (169 mal) $\omega_1^2 = 0.02821$



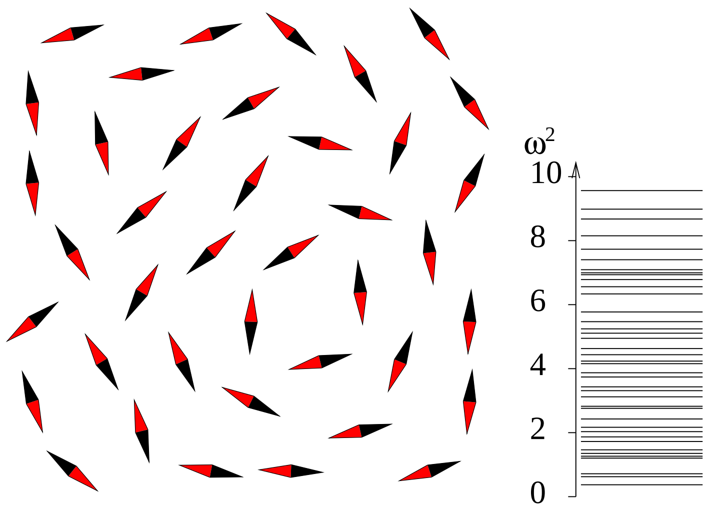
$E_5 = -88.53586$ (94 mal) $\omega_1^2 = 0.11493$



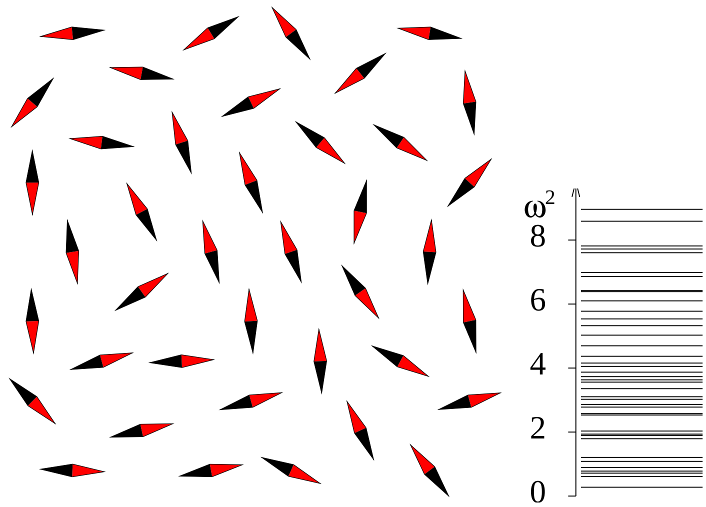
$E_6 = -88.52399$ (141 mal) $\omega_1^2 = 0.33476$



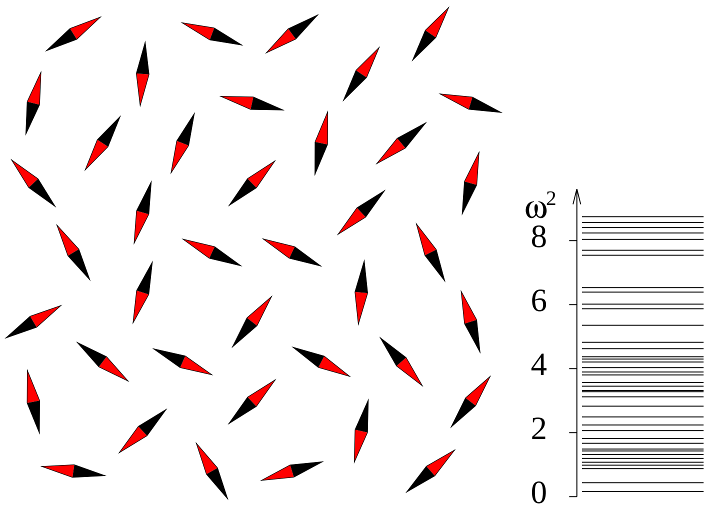
$E_{10} = -87.88515$ (148 mal) $\omega_1^2 = 0.16330$



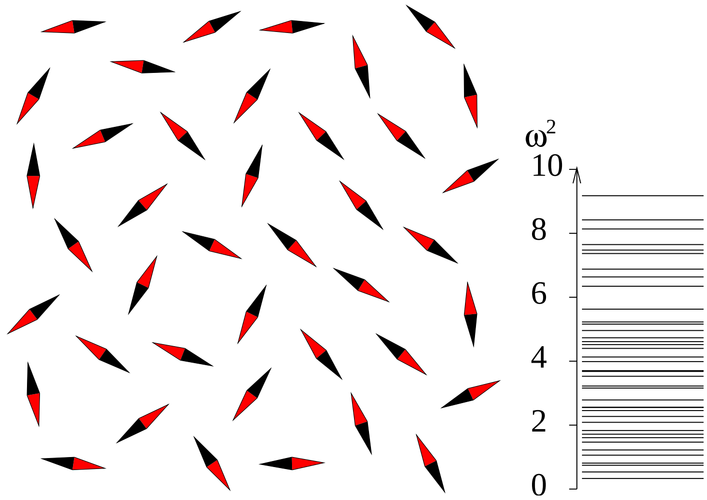
$E_{14} = -87.74147$ (125 mal) $\omega_1^2 = 0.37267$



$E_{211} = -80.31682$ (1 mal) $\omega_1^2 = 0.27629$

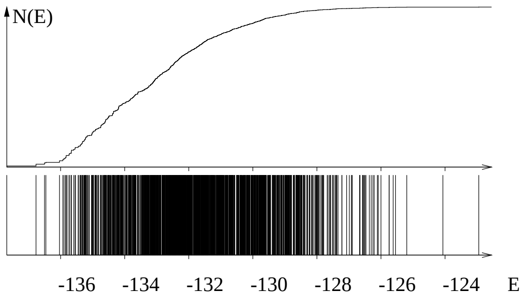


$E_{212} = -80.14766$ (1 mal) $\omega_1^2 = 0.16551$

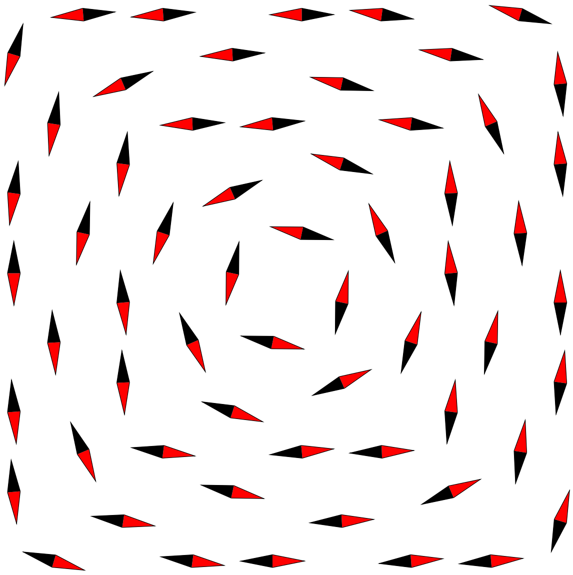


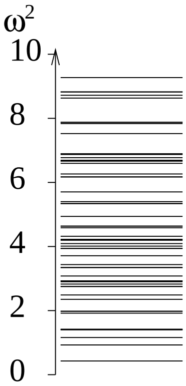
$E_{213} = -79.39126$ (1 mal) $\omega_1^2 = 0.33005$

Vierdrei-Gitter(5,5)

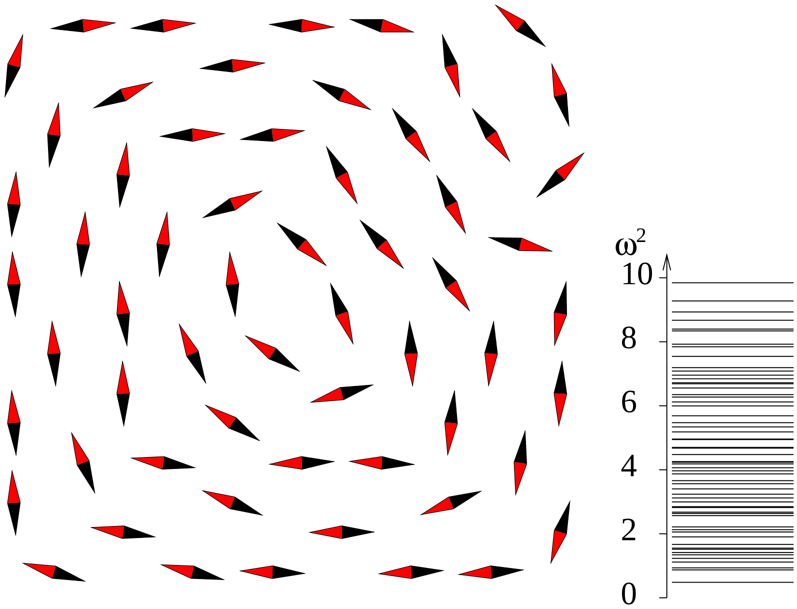


Anzahl Gitterpunkte: 60, Gefundene Energie-Niveaus: 1220, Läufe: 3000

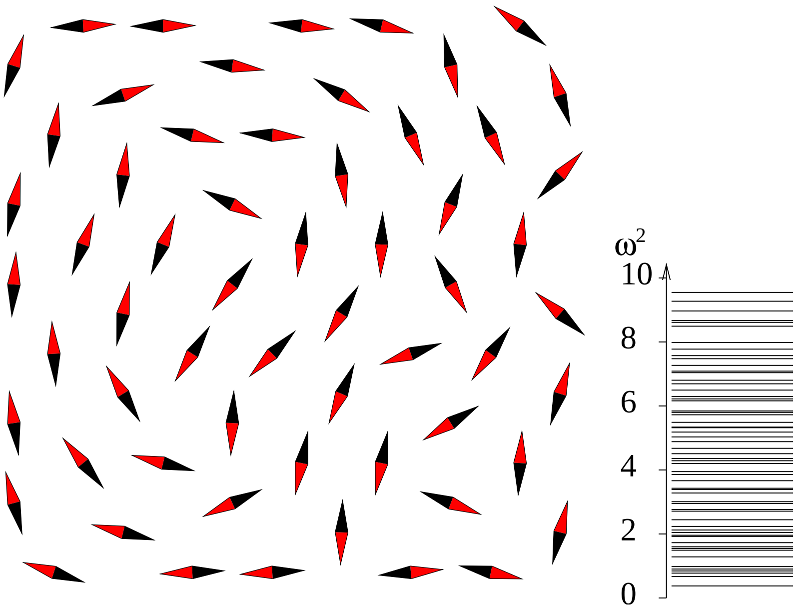




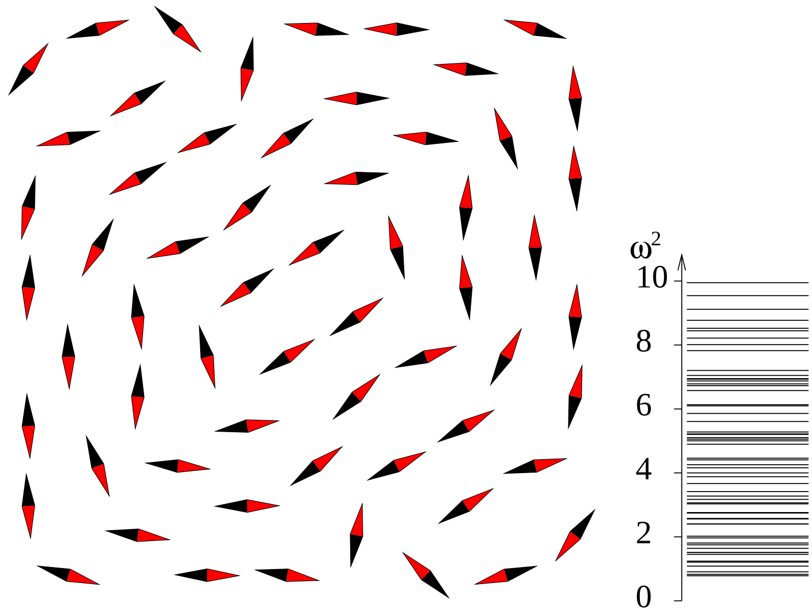
$E_1 = -137.67953$ (21 mal) $\omega_1^2 = 0.42868$



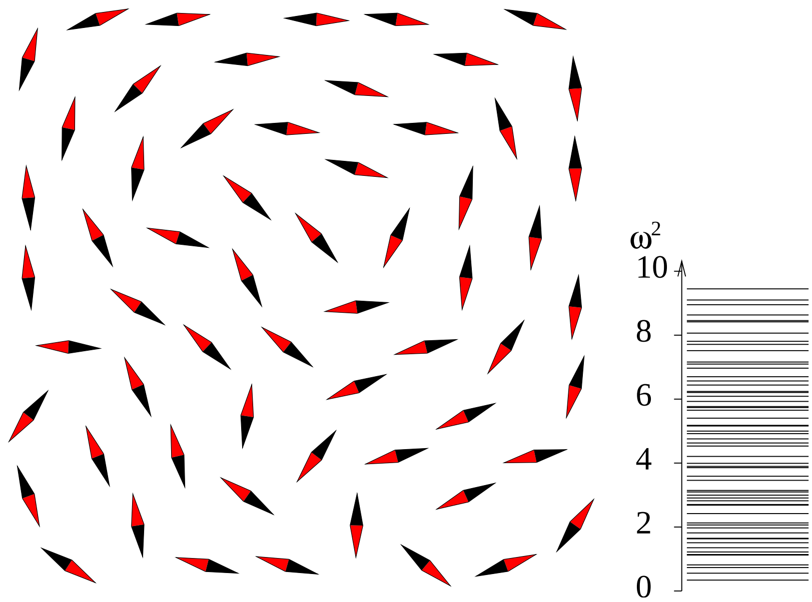
$E_2 = -136.76795$ (33 mal) $\omega_1^2 = 0.48313$



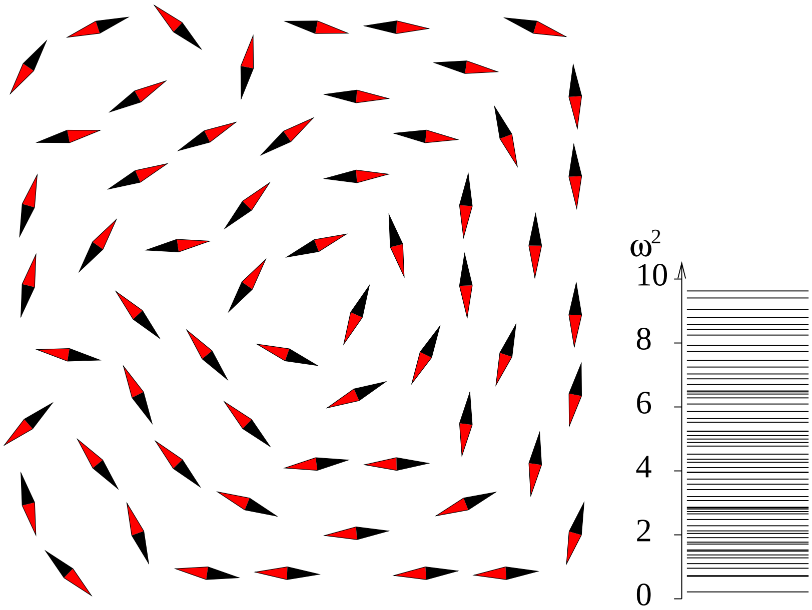
$E_3 = -136.50194$ (25 mal) $\omega_1^2 = 0.37647$



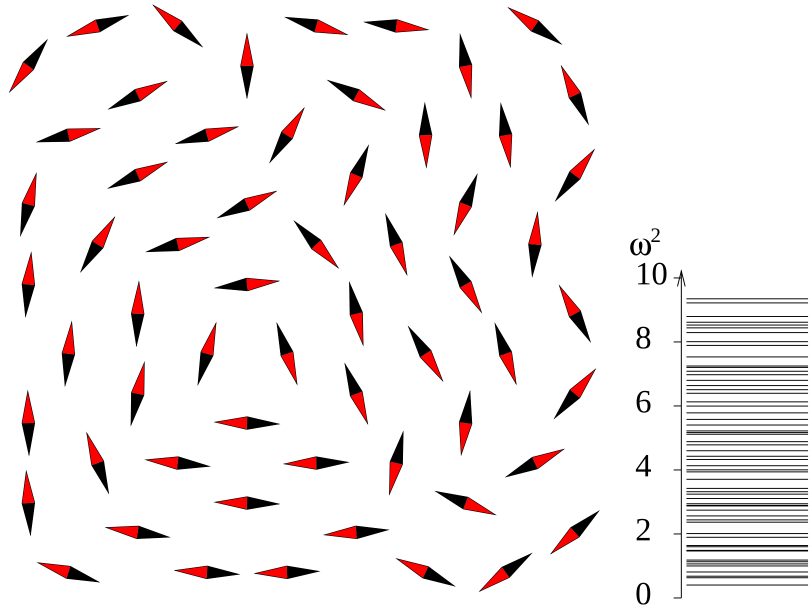
$E_4 = -136.46010$ (10 mal) $\omega_1^2 = 0.78376$



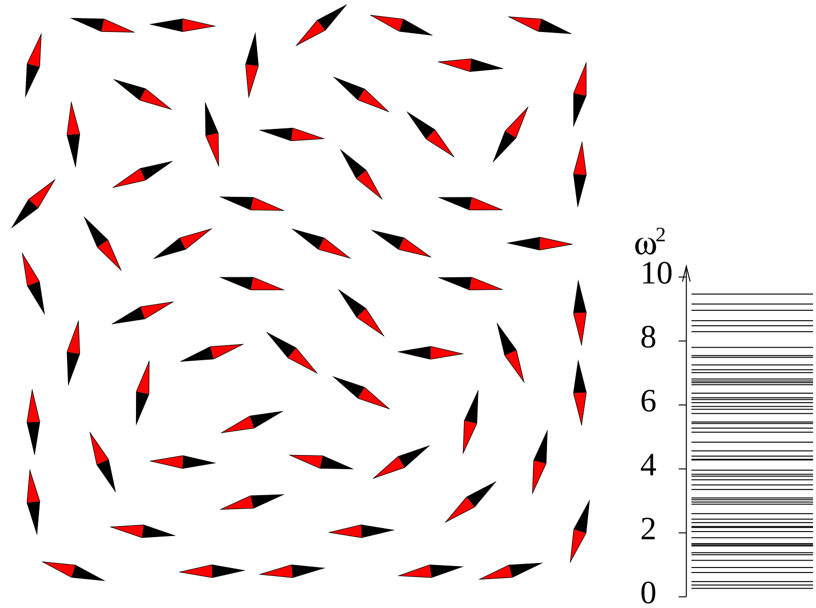
$E_5 = -136.03431$ (30 mal) $\omega_1^2 = 0.34133$



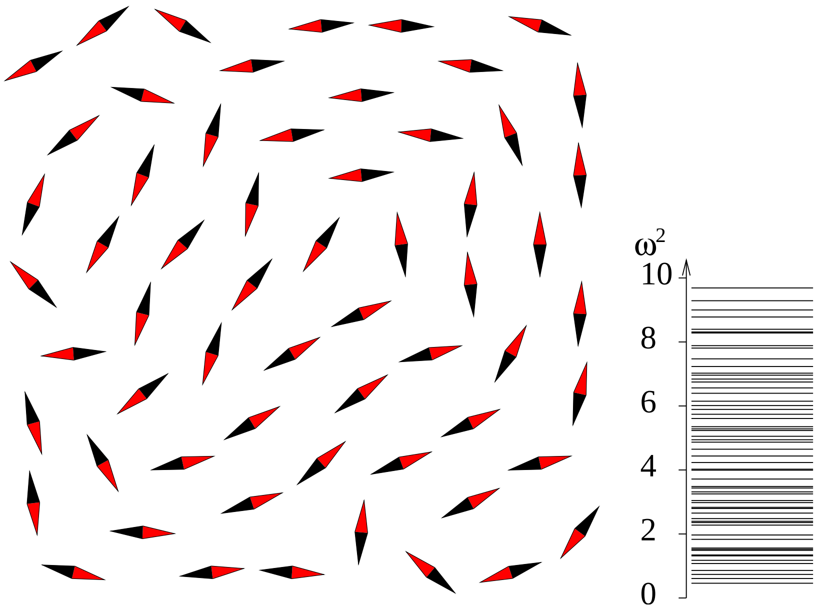
$E_6 = -135.93002$ (23 mal) $\omega_1^2 = 0.21631$



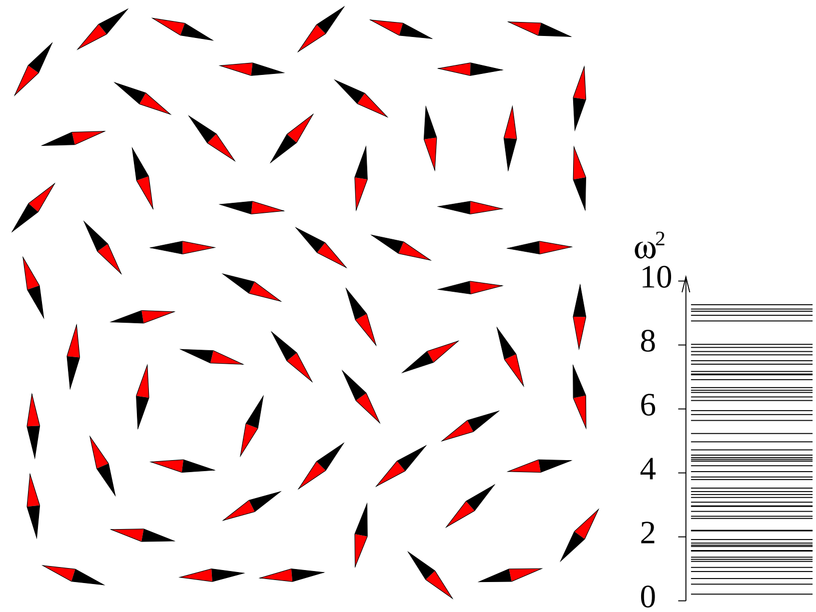
$E_9 = -135.82669$ (34 mal) $\omega_1^2 = 0.40450$



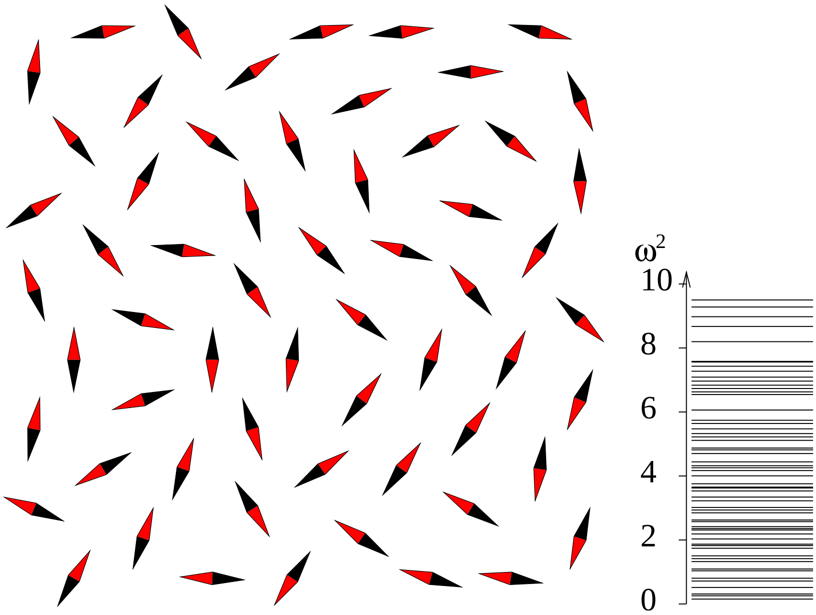
$E_{15} = -135.66296$ (34 mal) $\omega_1^2 = 0.26438$



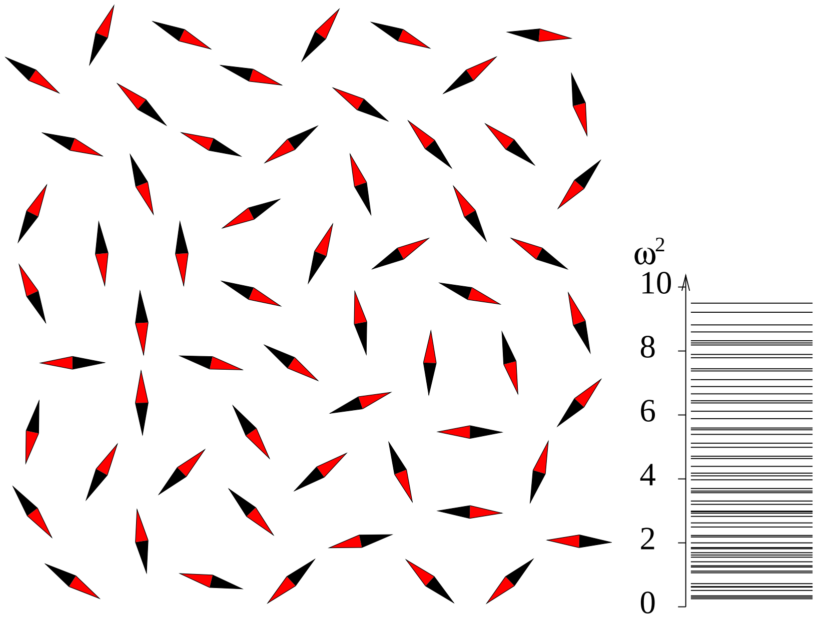
$E_{17} = -135.54842$ (27 mal) $\omega_1^2 = 0.45969$



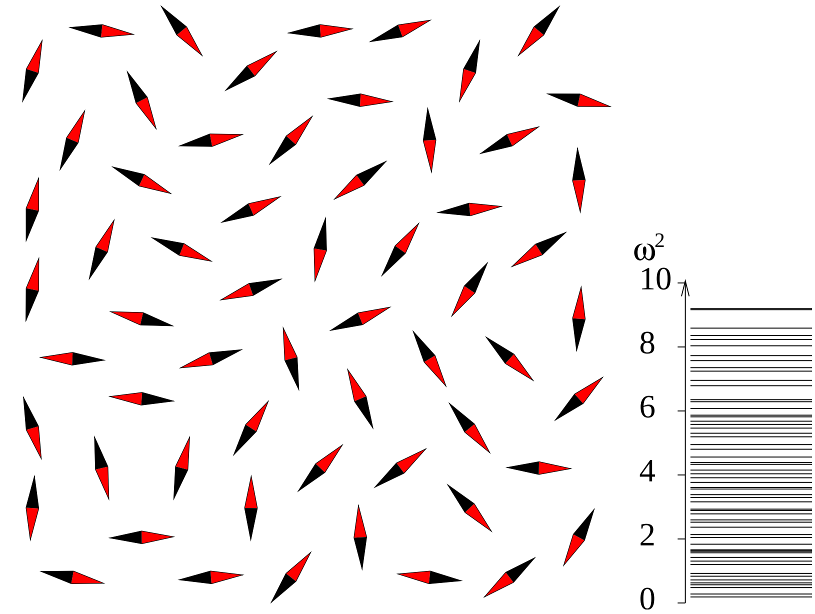
$E_{26} = -135.32220$ (28 mal) $\omega_1^2 = 0.20775$



$E_{1218} = -125.19440$ (1 mal) $\omega_1^2 = 0.15349$

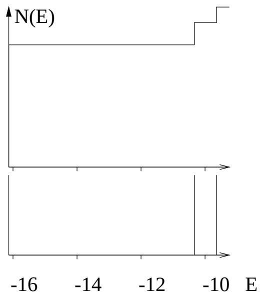


$E_{1219} = -124.06741$ (1 mal) $\omega_1^2 = 0.25233$

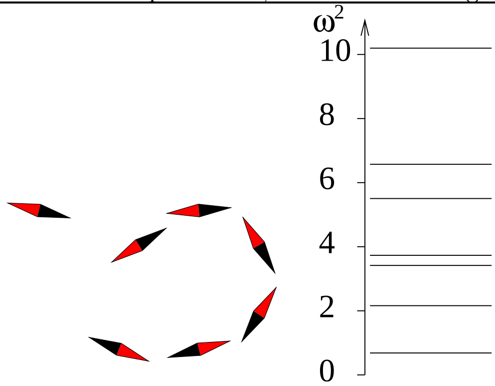


$E_{1220} = -122.94688$ (1 mal) $\omega_1^2 = 0.18795$

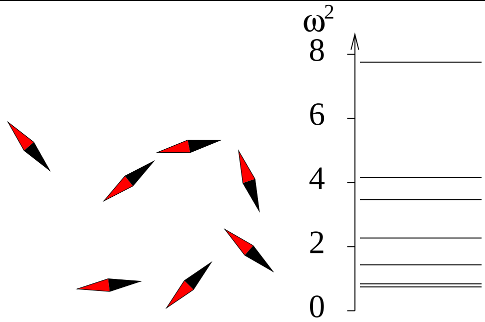
Zufallsgitter(2,6)



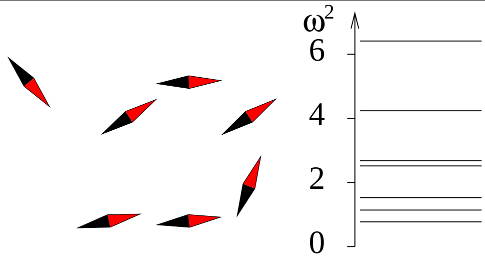
Anzahl Gitterpunkte: 7, Gefundene Energie-Niveaus: 3, Läufe: 1000



$E_1 = -16.13286$ (764 mal) $\omega_1^2 = 0.68212$

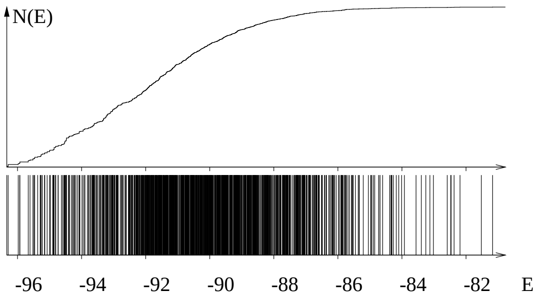


$E_2 = -10.33446$ (139 mal) $\omega_1^2 = 0.74247$

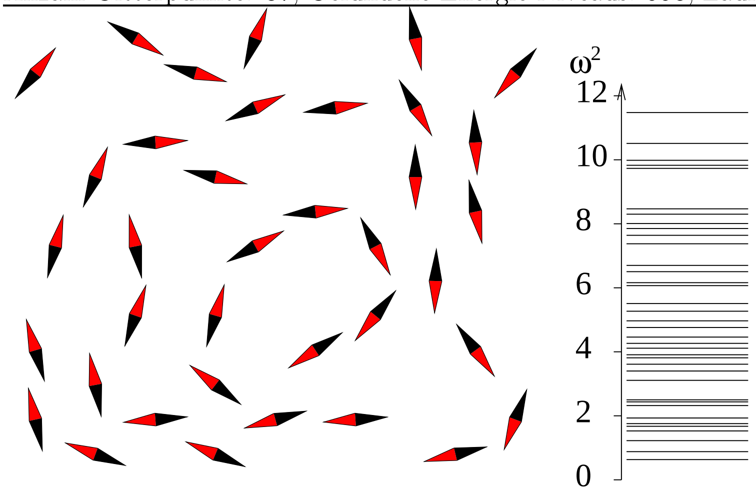


$E_3 = -9.64182$ (97 mal) $\omega_1^2 = 0.77274$

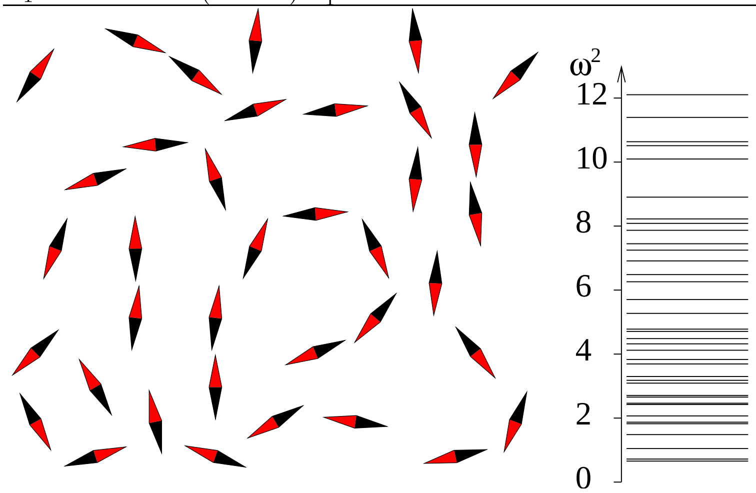
Zufallsgitter(6,12)



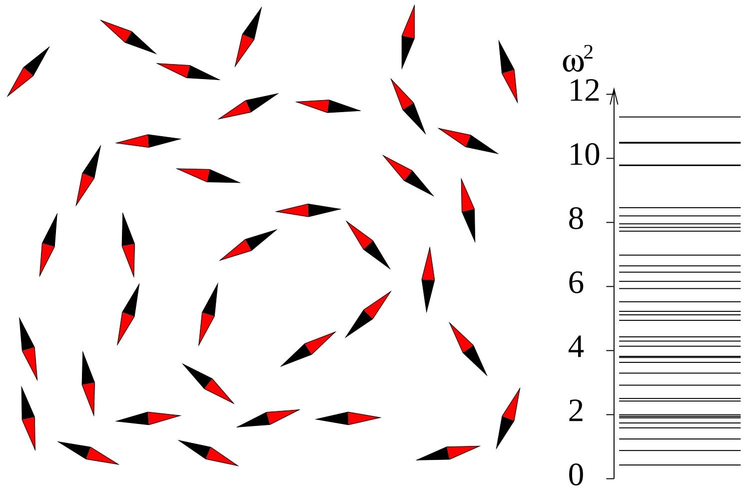
Anzahl Gitterpunkte: 37, Gefundene Energie-Niveaus: 998, Läufe: 3000



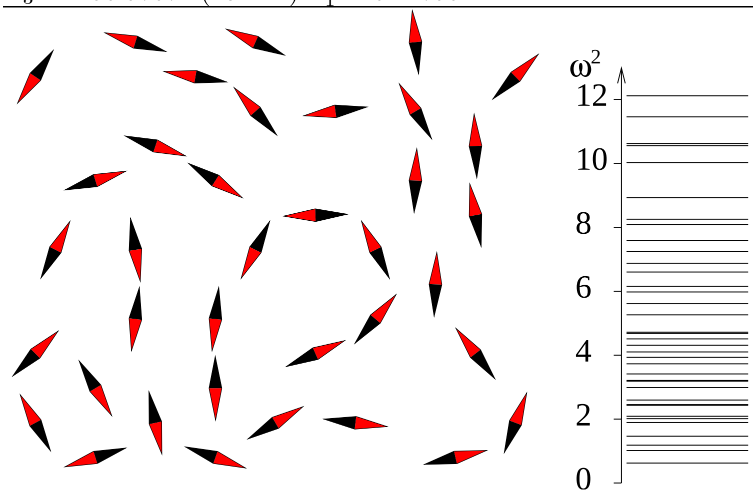
$E_1 = -96.33492$ (13 mal) $\omega_1^2 = 0.63396$



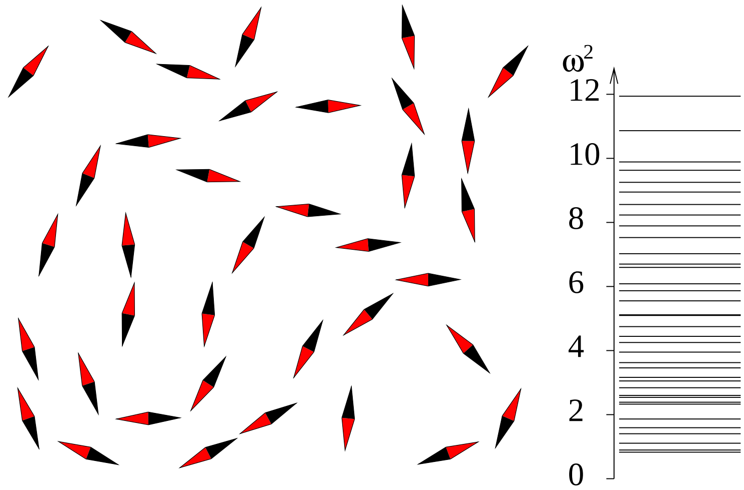
$E_2 = -96.29352$ (35 mal) $\omega_1^2 = 0.65605$



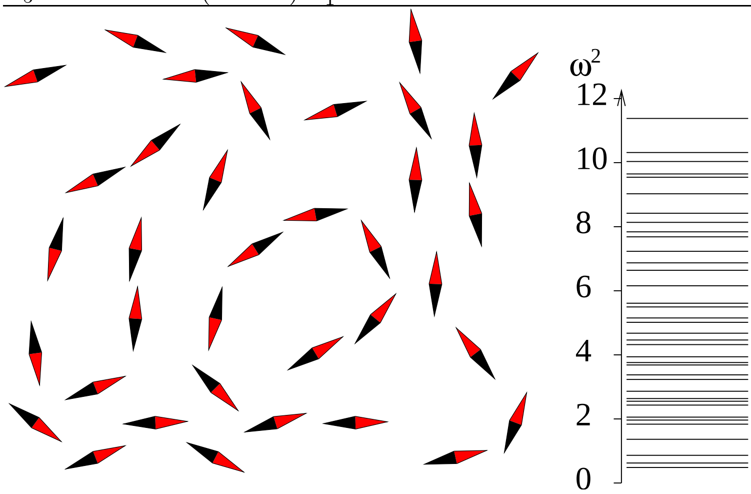
$E_3 = -95.97672$ (18 mal) $\omega_1^2 = 0.42795$



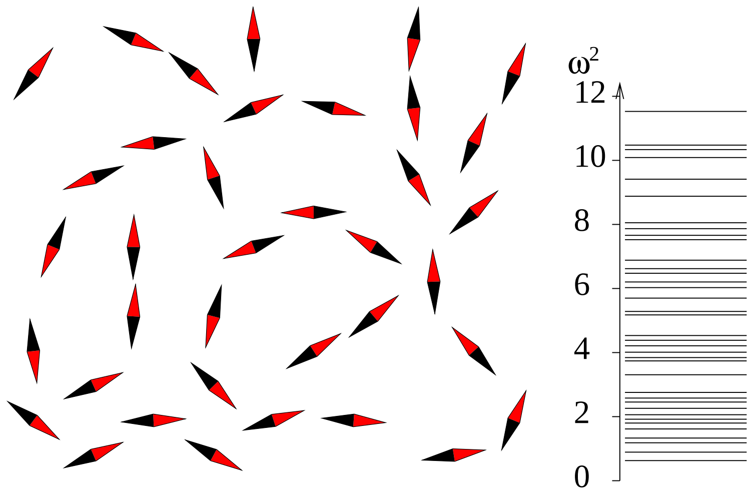
$E_4 = -95.93219$ (12 mal) $\omega_1^2 = 0.62413$



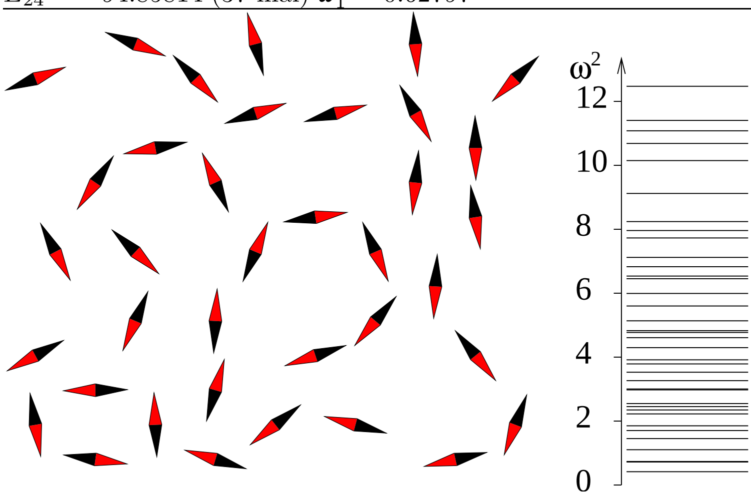
$E_5 = -95.92569$ (18 mal) $\omega_1^2 = 0.82767$



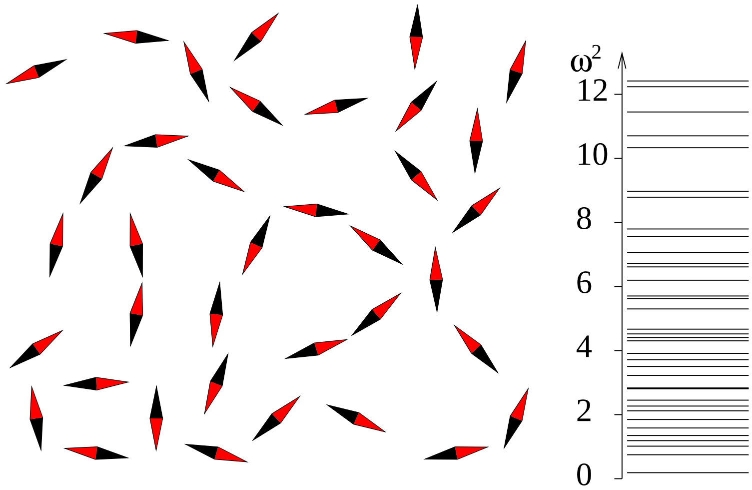
$E_6 = -95.66432$ (26 mal) $\omega_1^2 = 0.48318$



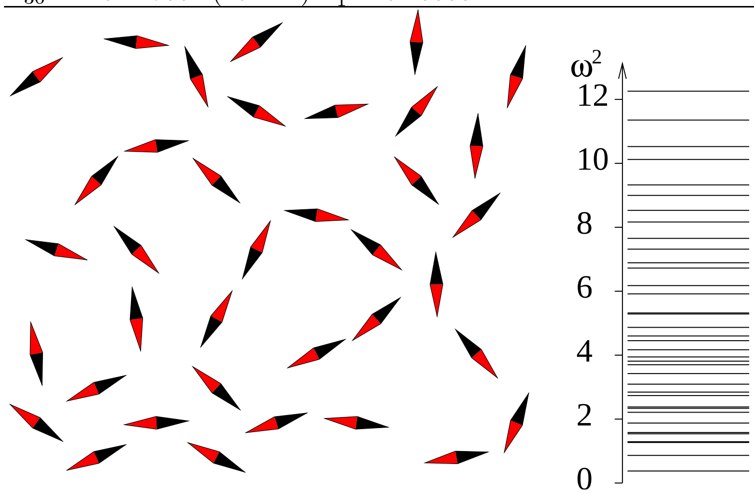
$E_{24} = -94.85814$ (37 mal) $\omega_1^2 = 0.62797$



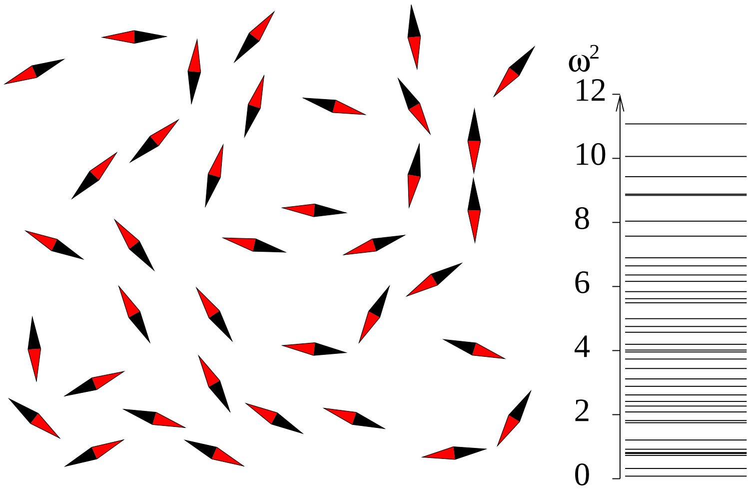
$E_{33} = -94.52346$ (26 mal) $\omega_1^2 = 0.41408$



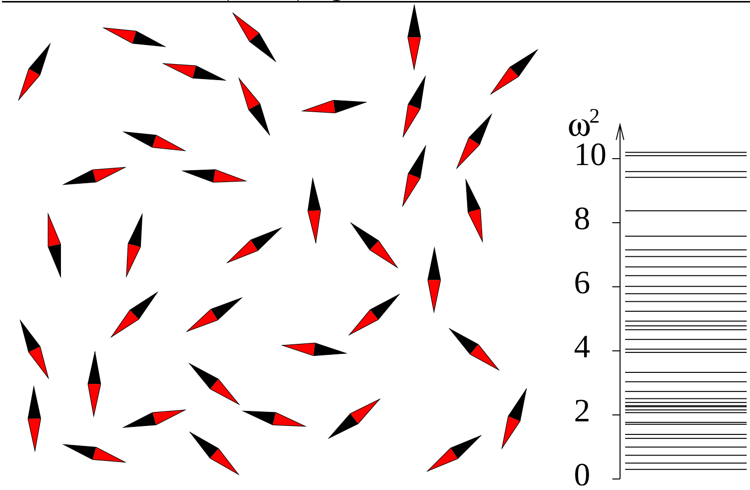
$E_{36} = -94.47802$ (26 mal) $\omega_1^2 = 0.18838$



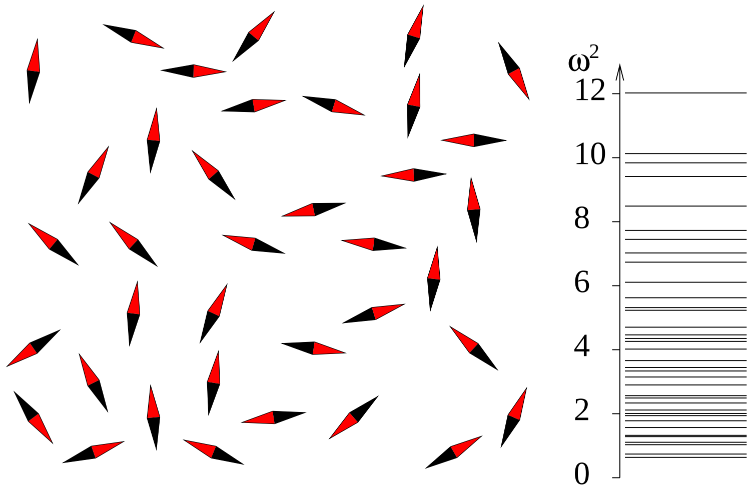
$E_{54} = -93.95054$ (27 mal) $\omega_1^2 = 0.37417$



$E_{996} = -82.18811$ (1 mal) $\omega_1^2 = 0.08091$

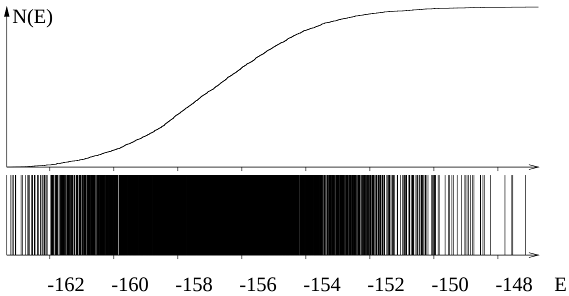


$E_{997} = -81.52357$ (1 mal) $\omega_1^2 = 0.30126$

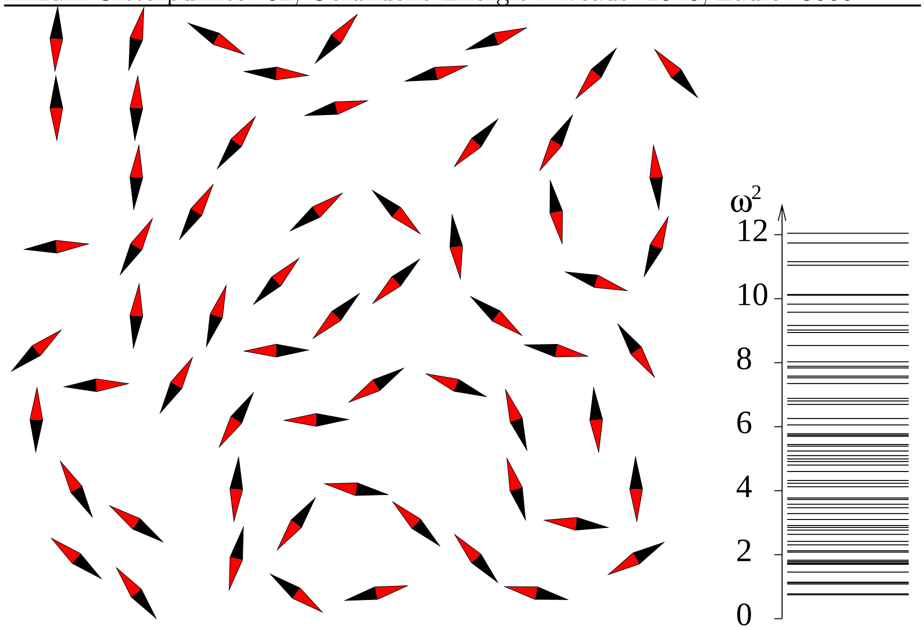


$E_{998} = -81.16885$ (1 mal) $\omega_1^2 = 0.63721$

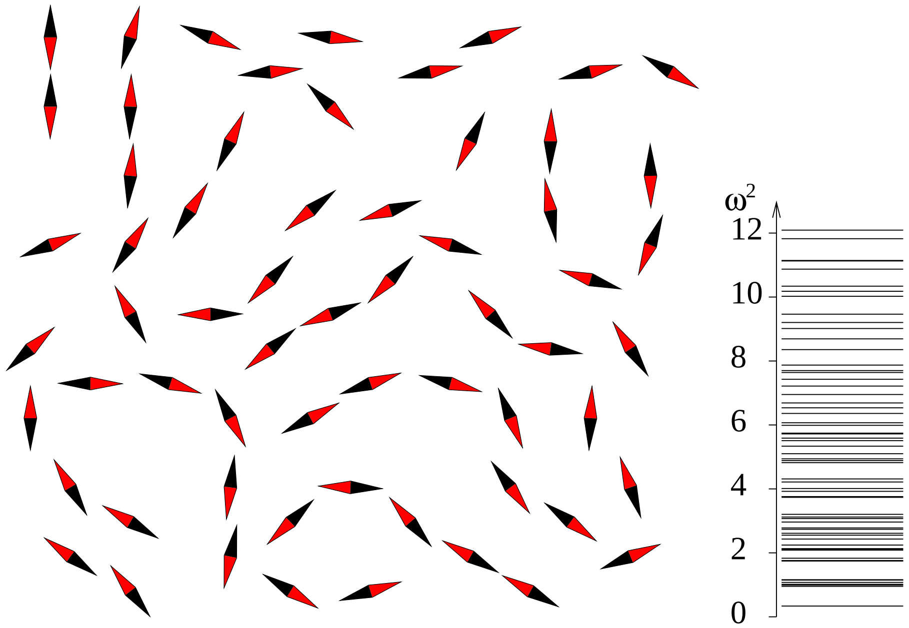
Zufallsgitter(8,16)



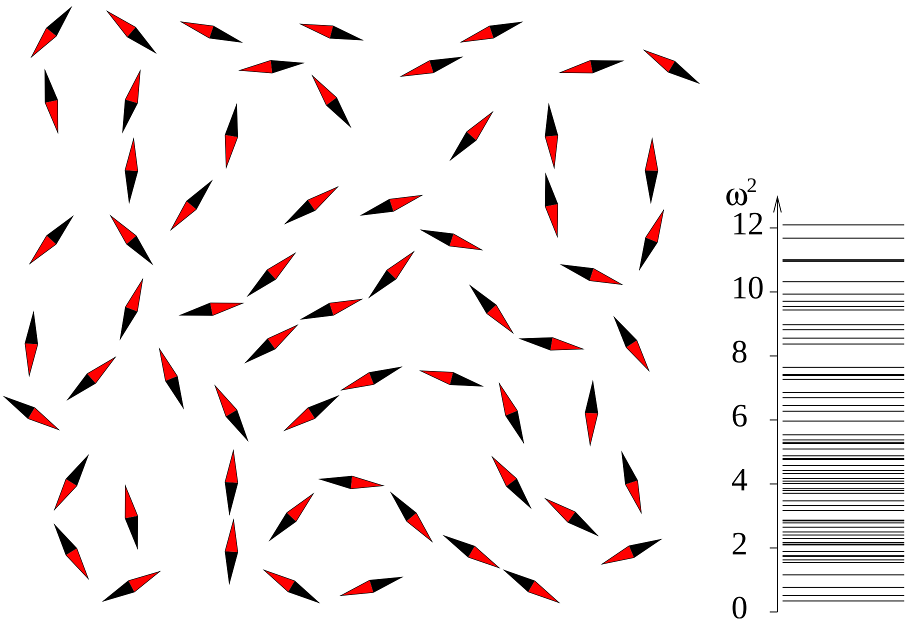
Anzahl Gitterpunkte: 62, Gefundene Energie-Niveaus: 2918, Läufe: 3000



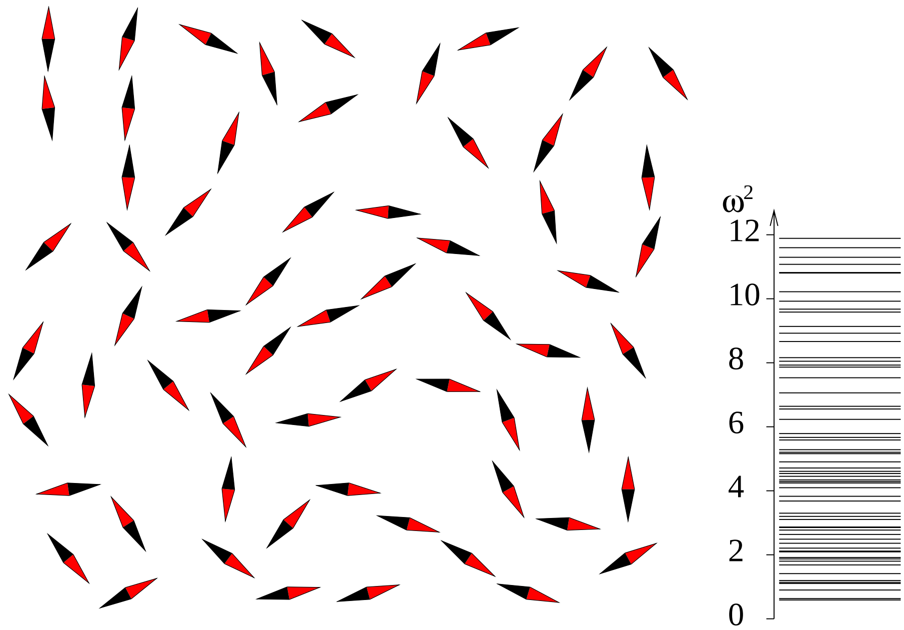
$E_1 = -163.34555$ (1 mal) $\omega_1^2 = 0.74927$



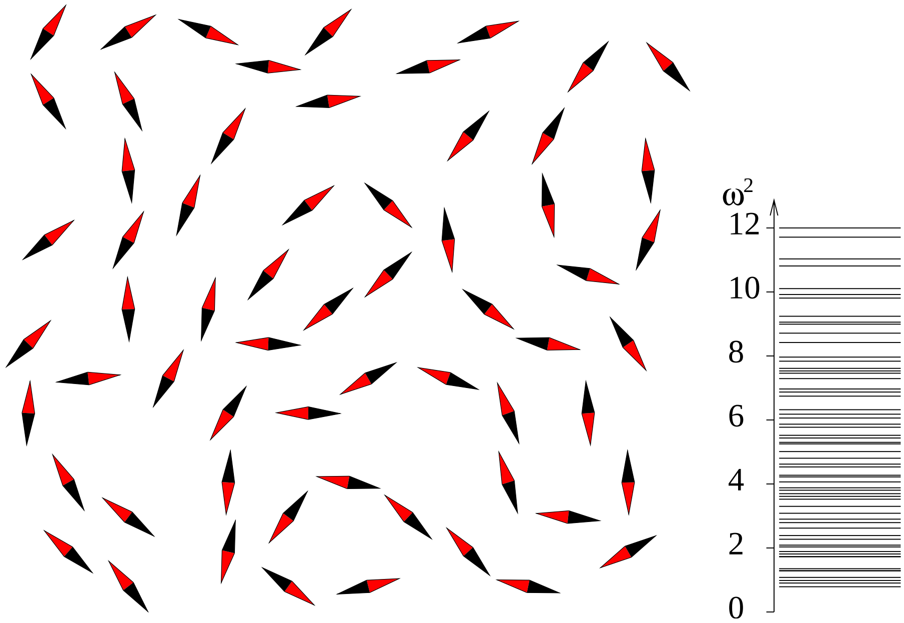
$E_2 = -163.21867$ (1 mal) $\omega_1^2 = 0.33610$



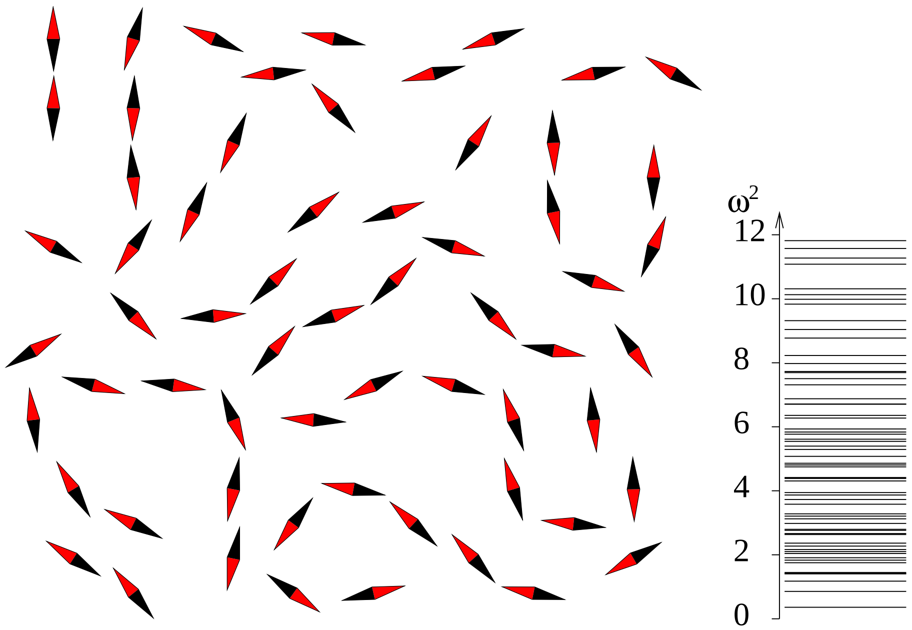
$E_3 = -163.17892$ (1 mal) $\omega_1^2 = 0.34389$



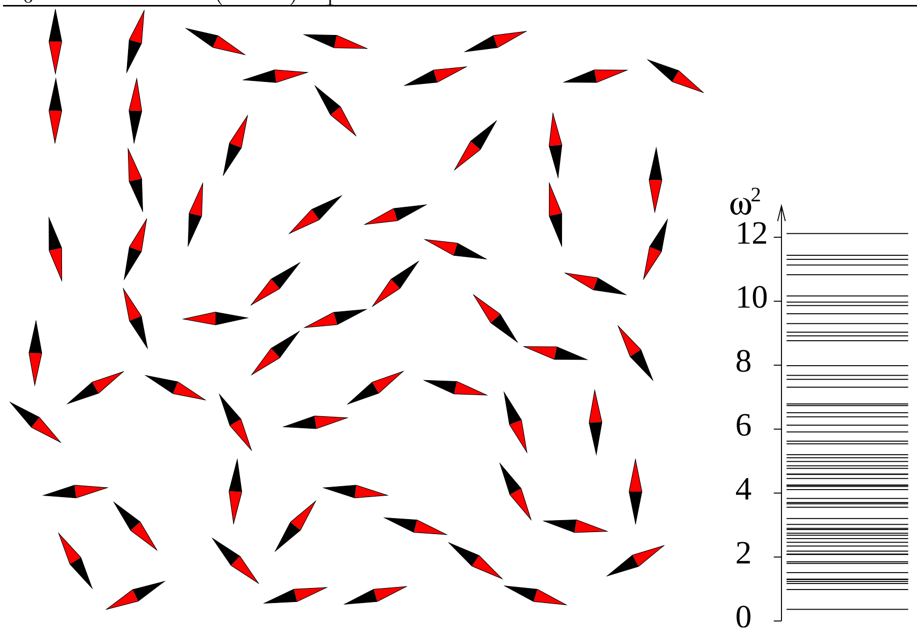
$E_4 = -163.12712$ (1 mal) $\omega_1^2 = 0.58748$



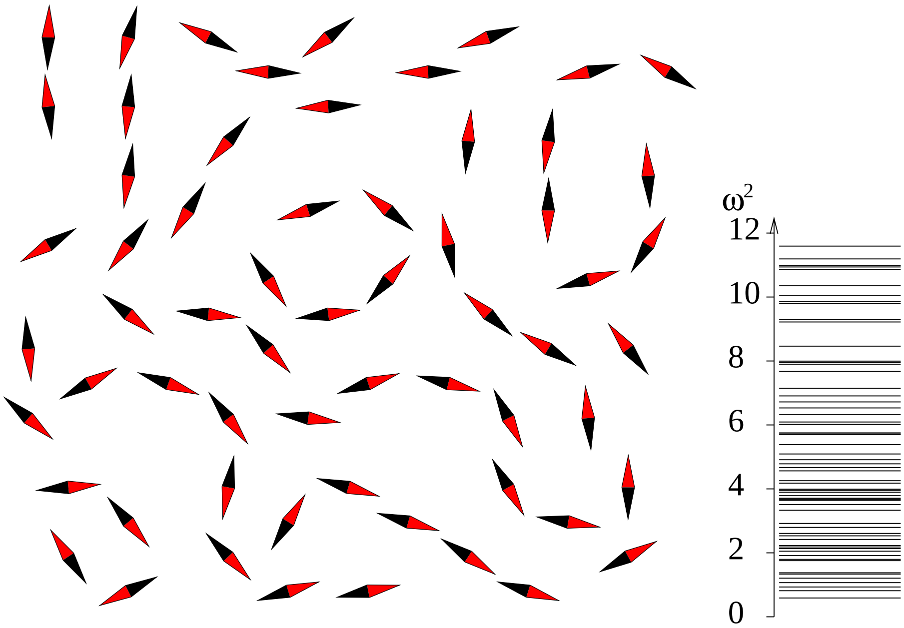
$E_5 = -163.07916$ (1 mal) $\omega_1^2 = 0.78980$



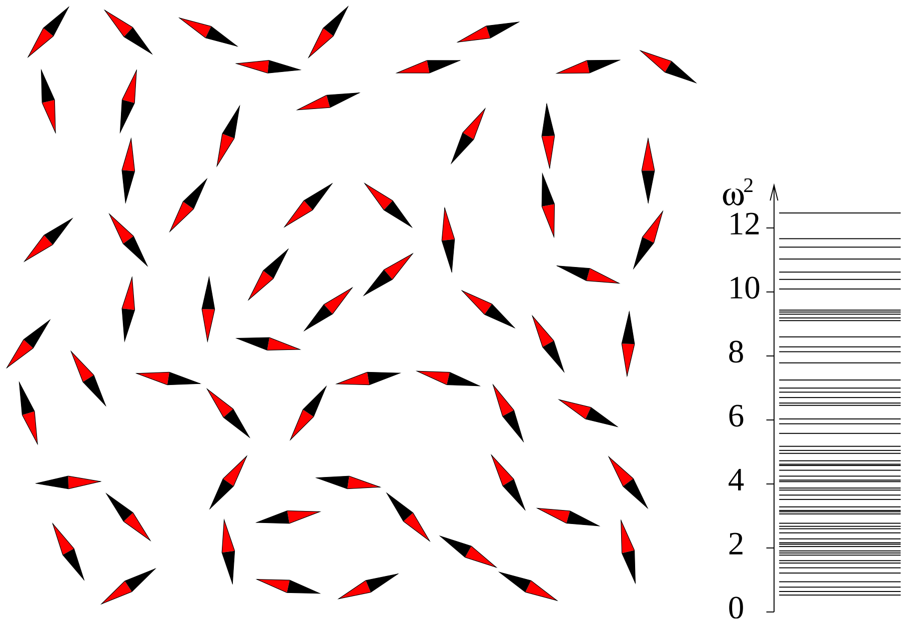
$E_6 = -163.06256$ (1 mal) $\omega_1^2 = 0.35835$



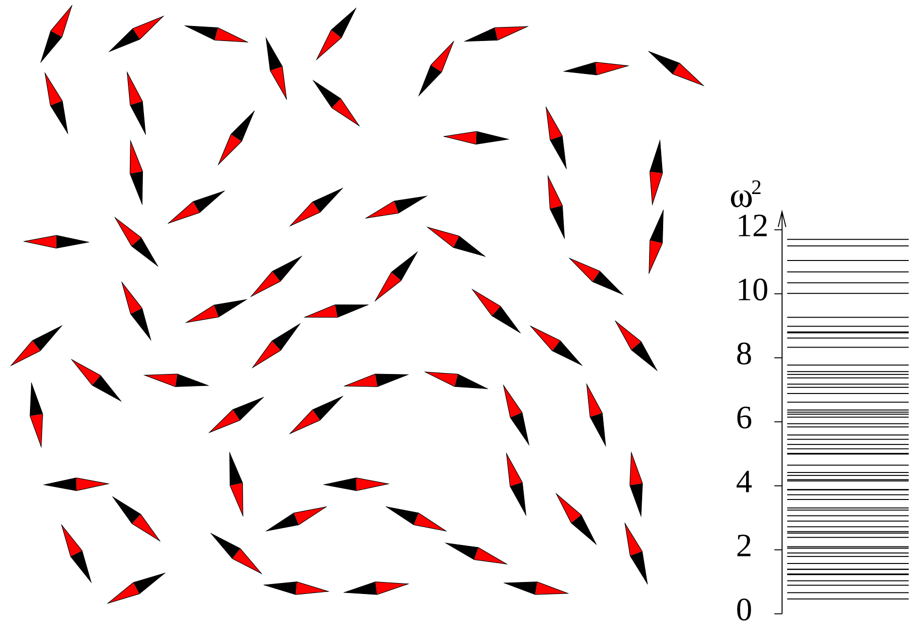
$E_{10} = -162.68859$ (2 mal) $\omega_1^2 = 0.36285$



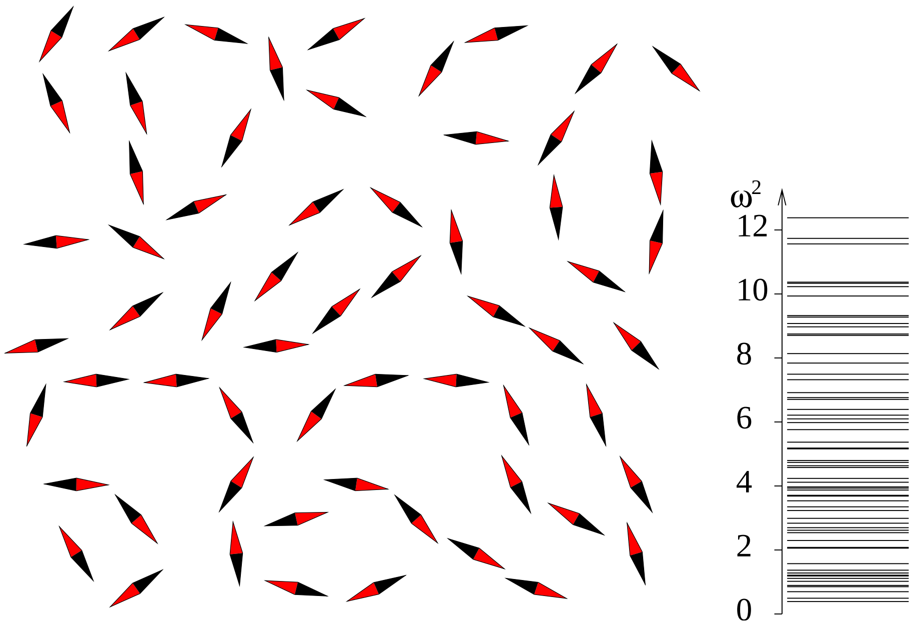
$E_{77} = -161.53249$ (3 mal) $\omega_1^2 = 0.58864$



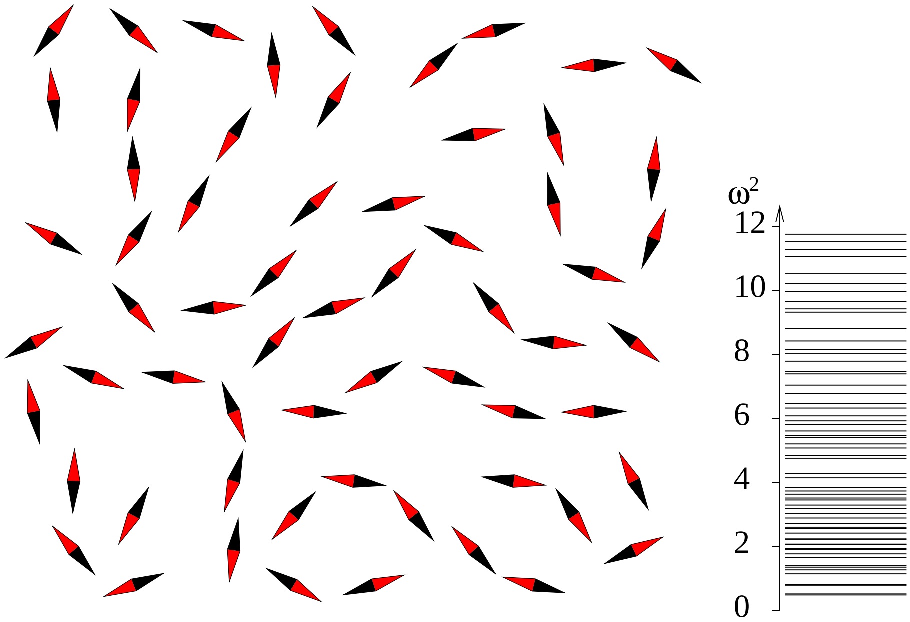
$E_{132} = -160.93944$ (3 mal) $\omega_1^2 = 0.52808$



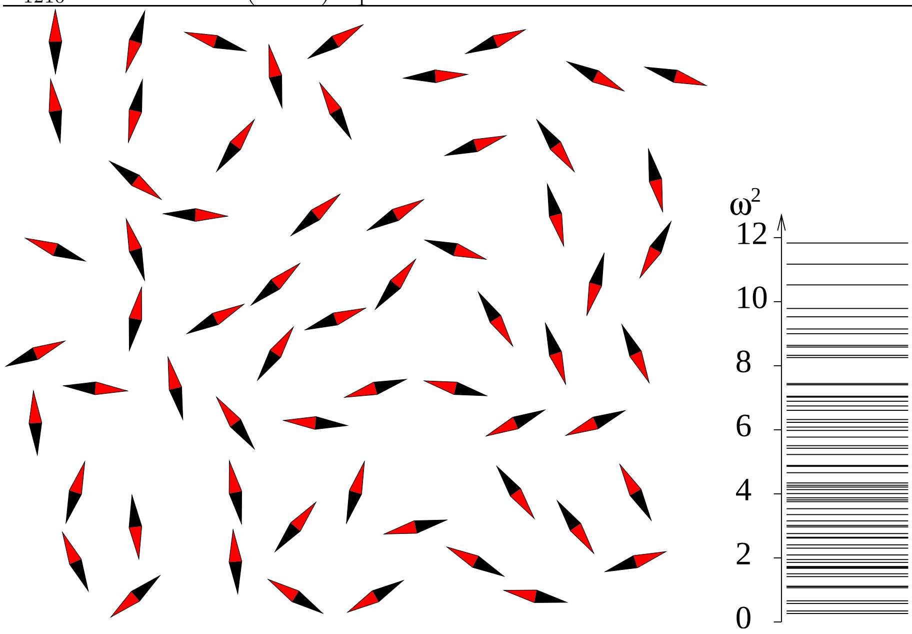
$E_{163} = -160.74212$ (3 mal) $\omega_1^2 = 0.46207$



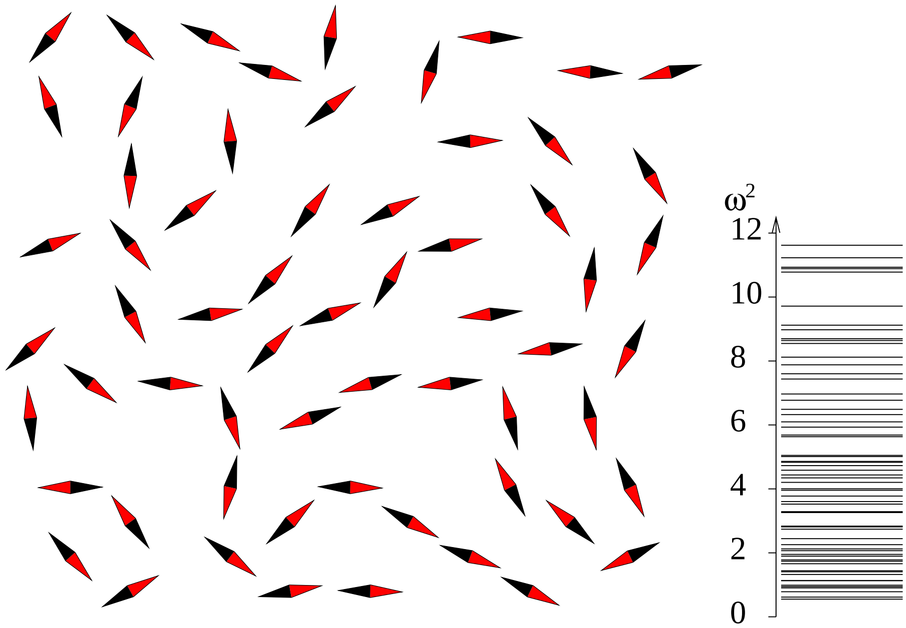
$E_{813} = -158.25310$ (3 mal) $\omega_1^2 = 0.38987$



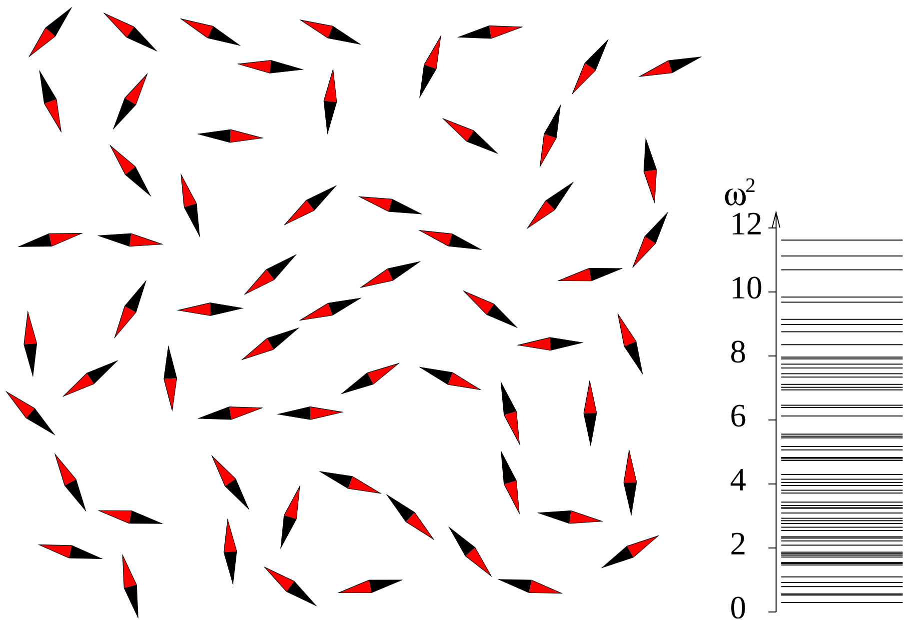
$E_{1210} = -157.34843$ (3 mal) $\omega_1^2 = 0.48921$



$E_{2916} = -147.56561$ (1 mal) $\omega_1^2 = 0.26374$

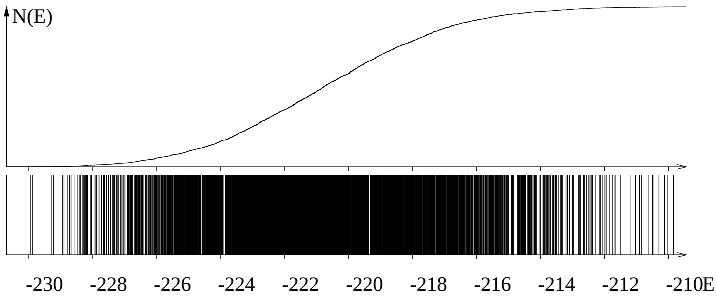


$E_{2917} = -147.53468$ (1 mal) $\omega_1^2 = 0.55337$

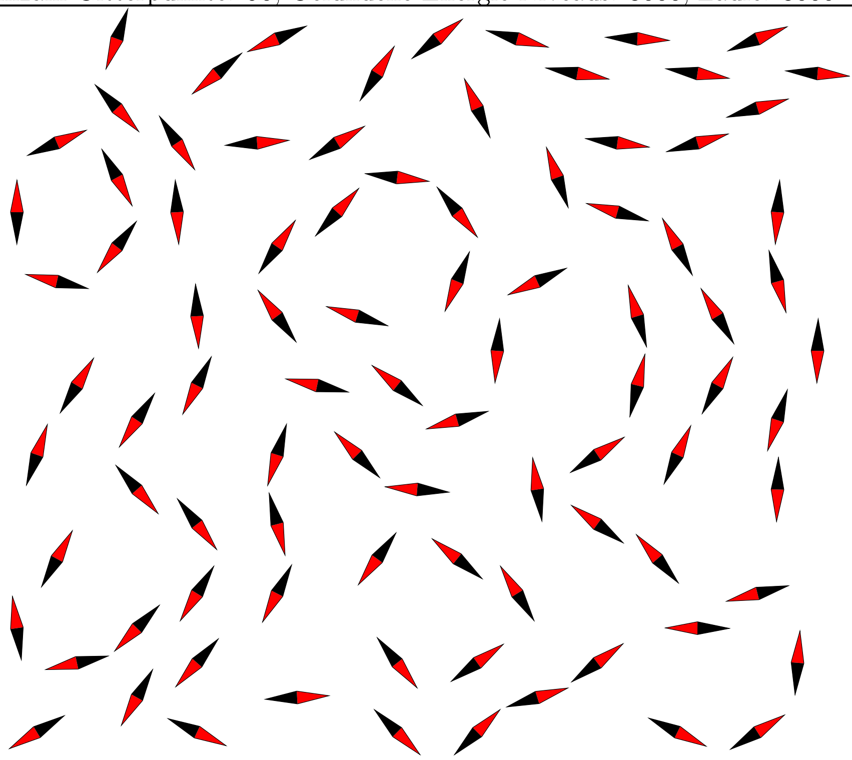


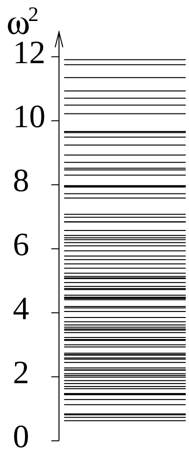
$E_{2918} = -147.13406$ (1 mal) $\omega_1^2 = 0.29548$

Zufallsgitter(10,20)

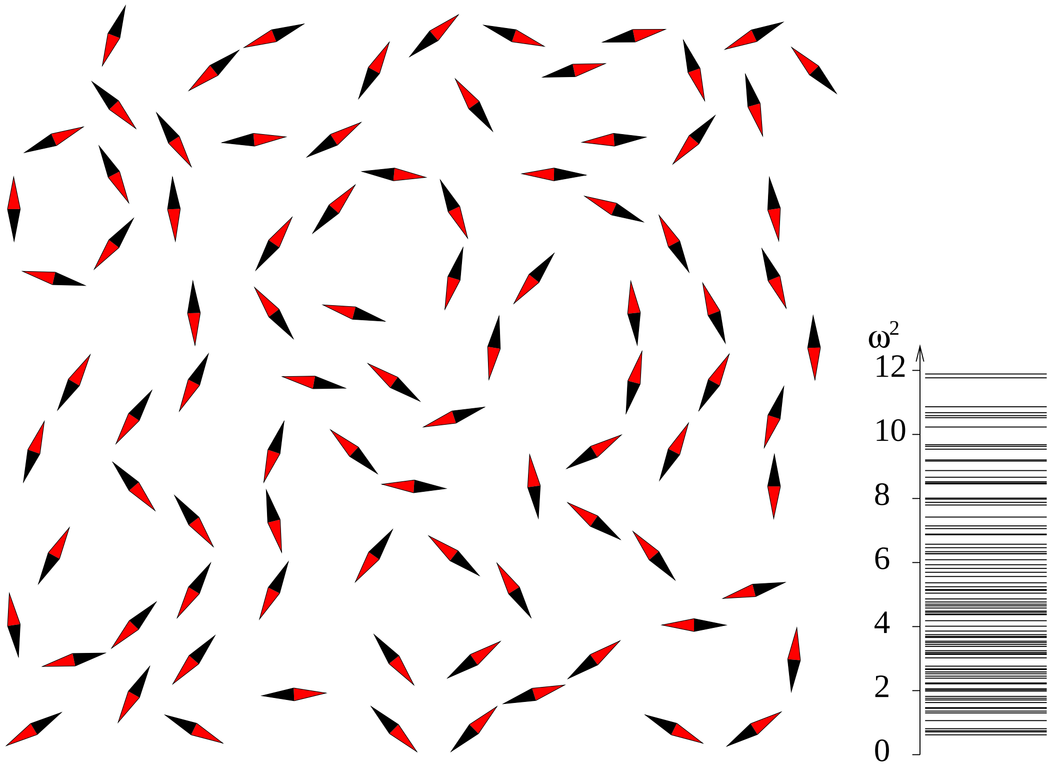


Anzahl Gitterpunkte: 90, Gefundene Energie-Niveaus: 3000, Läufe: 3000

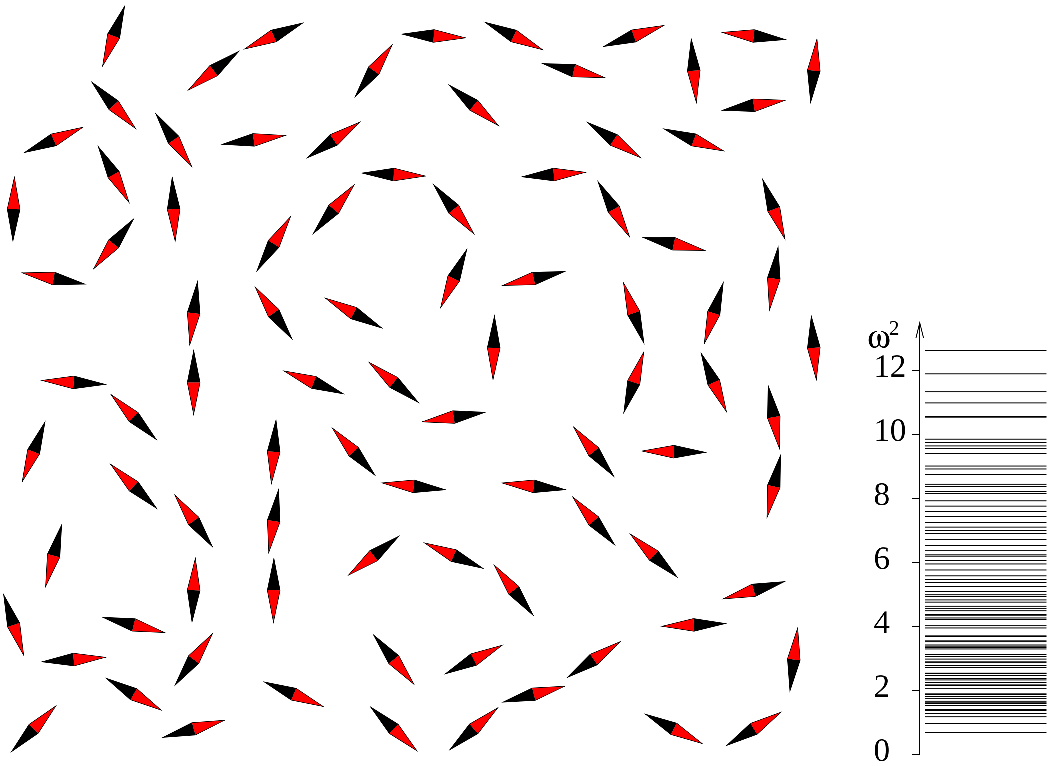




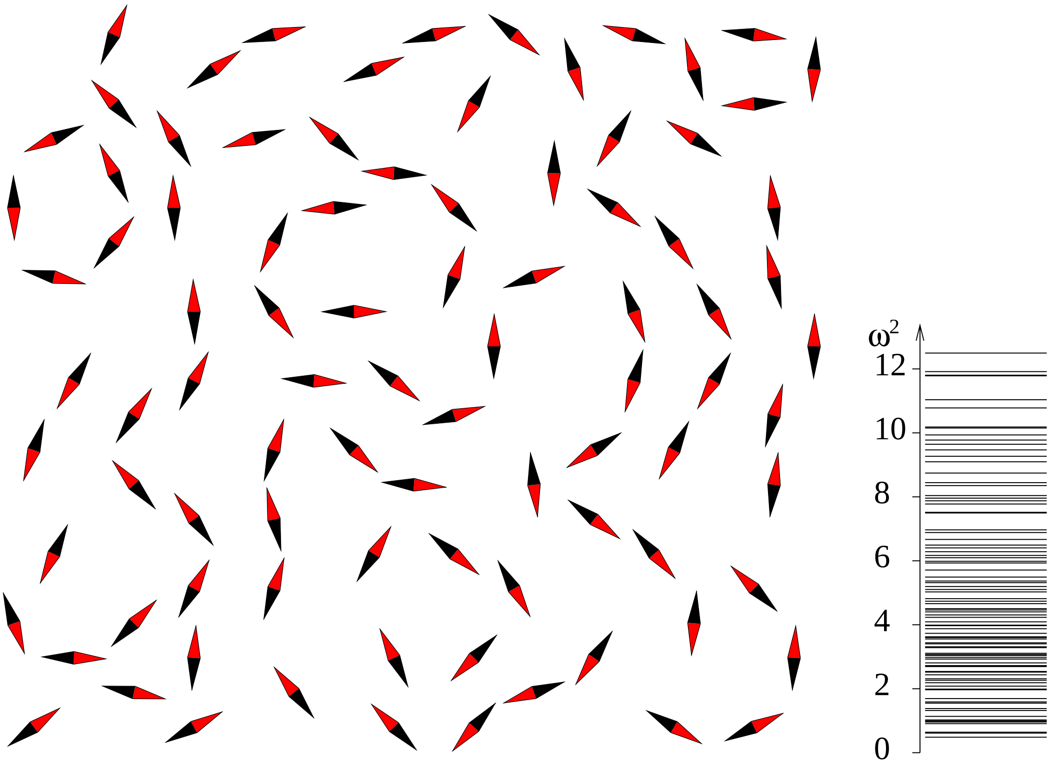
$E_1 = -230.67880$ (1 mal) $\omega_1^2 = 0.62603$



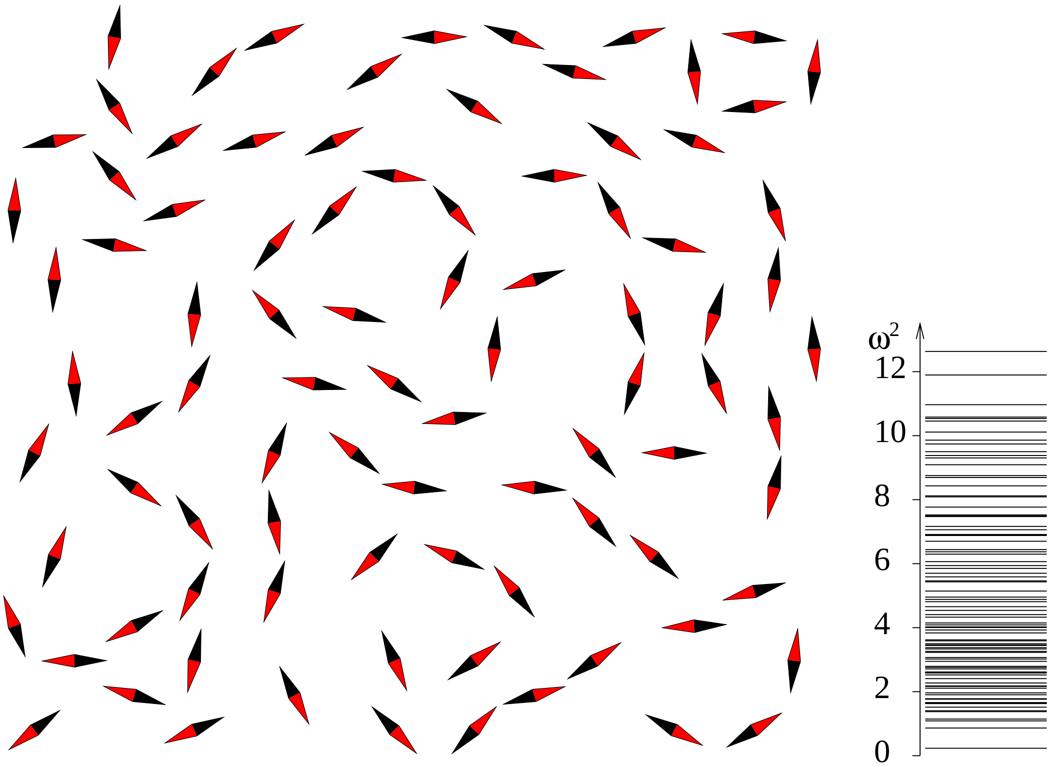
$E_2 = -229.92342$ (1 mal) $\omega_1^2 = 0.61900$



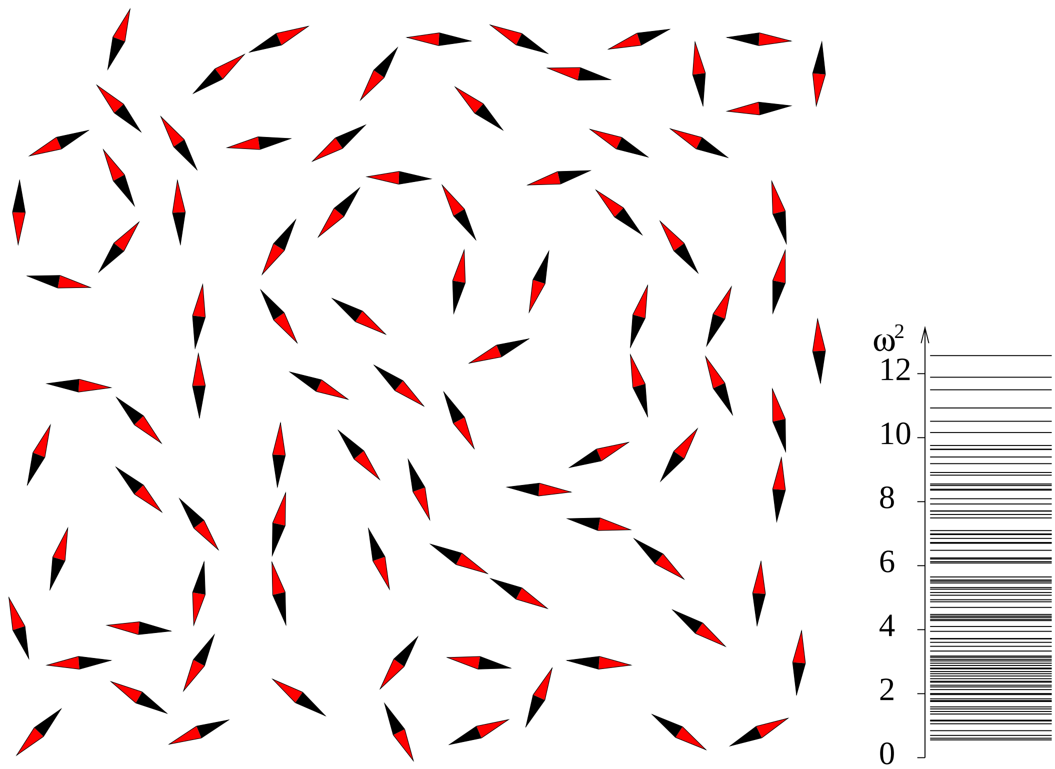
$E_3 = -229.87058$ (1 mal) $\omega_1^2 = 0.68114$



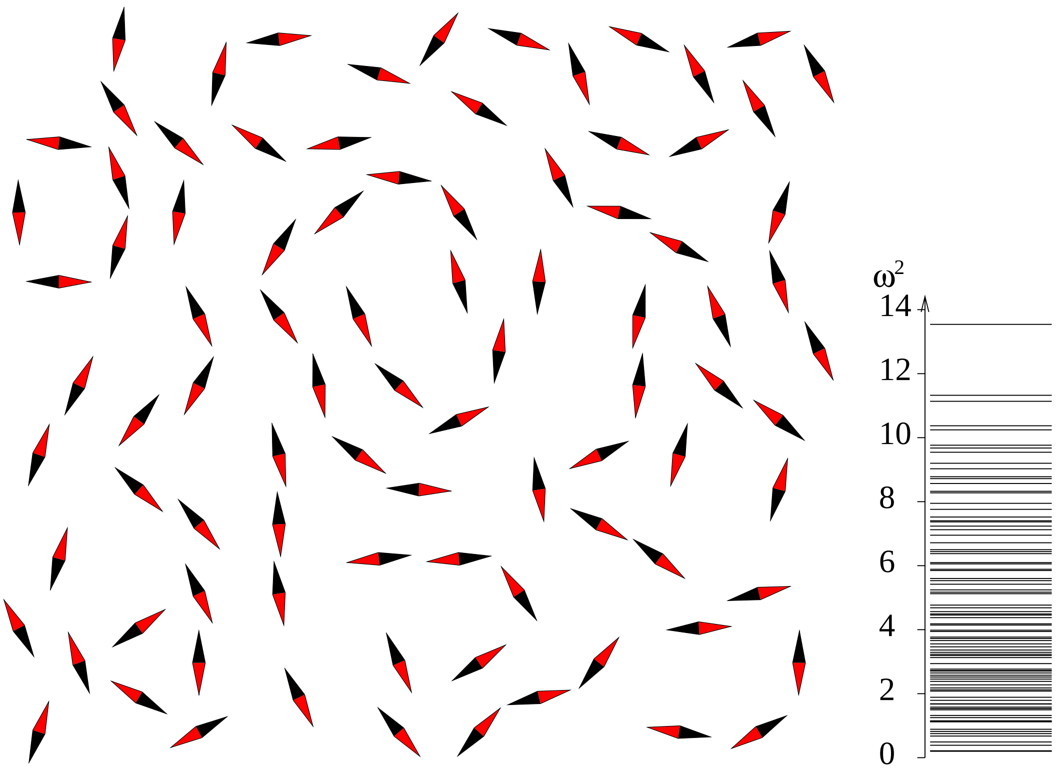
$E_4 = -229.28084$ (1 mal) $\omega_1^2 = 0.48553$



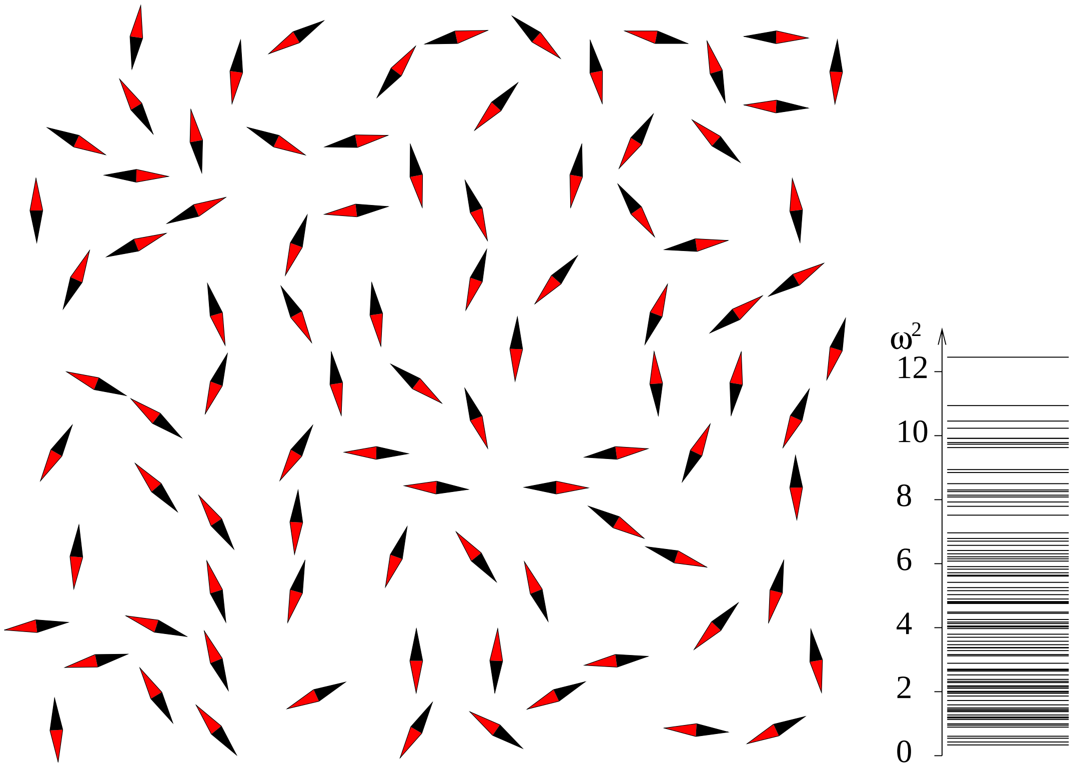
$E_5 = -229.21402$ (1 mal) $\omega_1^2 = 0.23101$



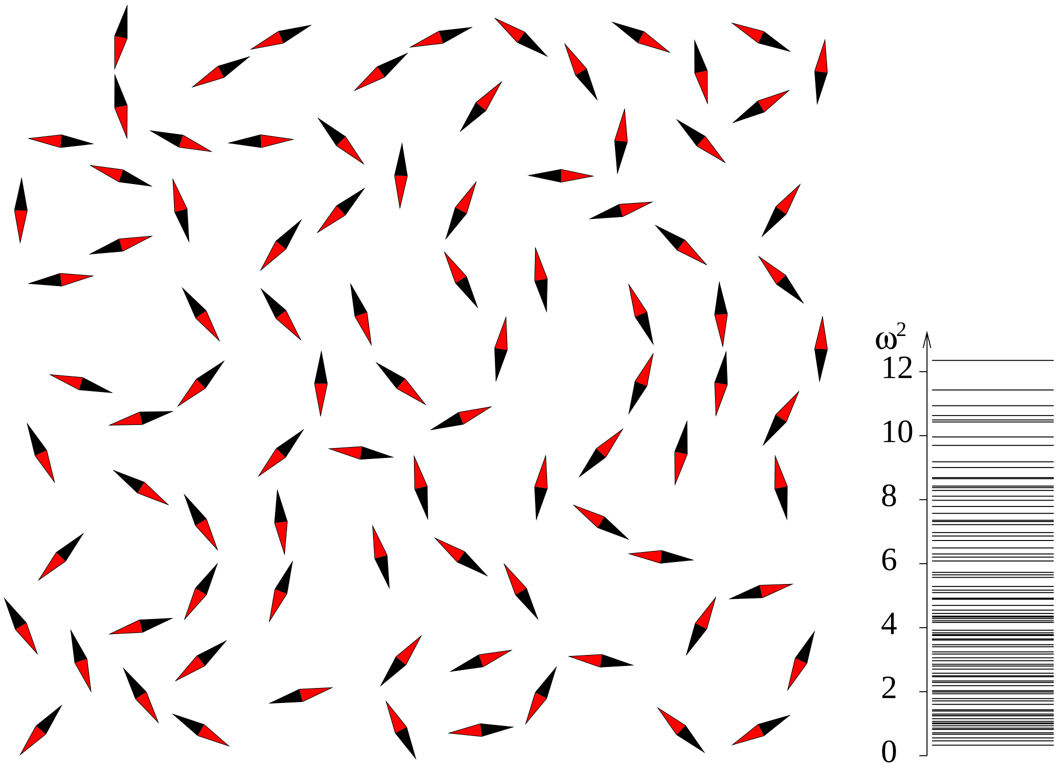
$E_6 = -228.93329$ (1 mal) $\omega_1^2 = 0.55732$



$E_{2998} = -210.12126$ (1 mal) $\omega_1^2 = 0.19852$

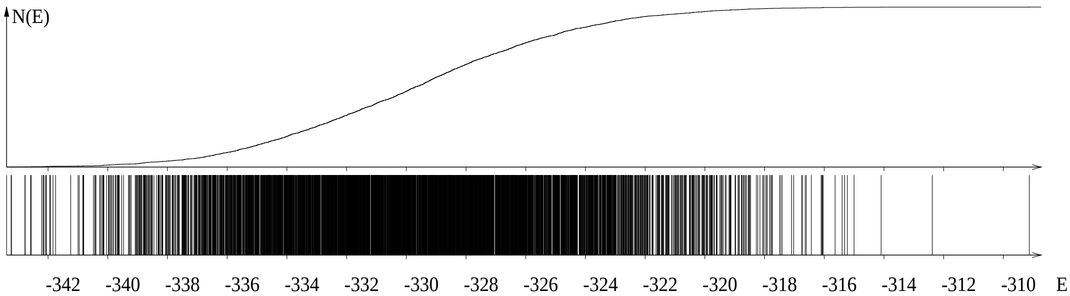


$E_{2999} = -210.01895$ (1 mal) $\omega_1^2 = 0.33703$

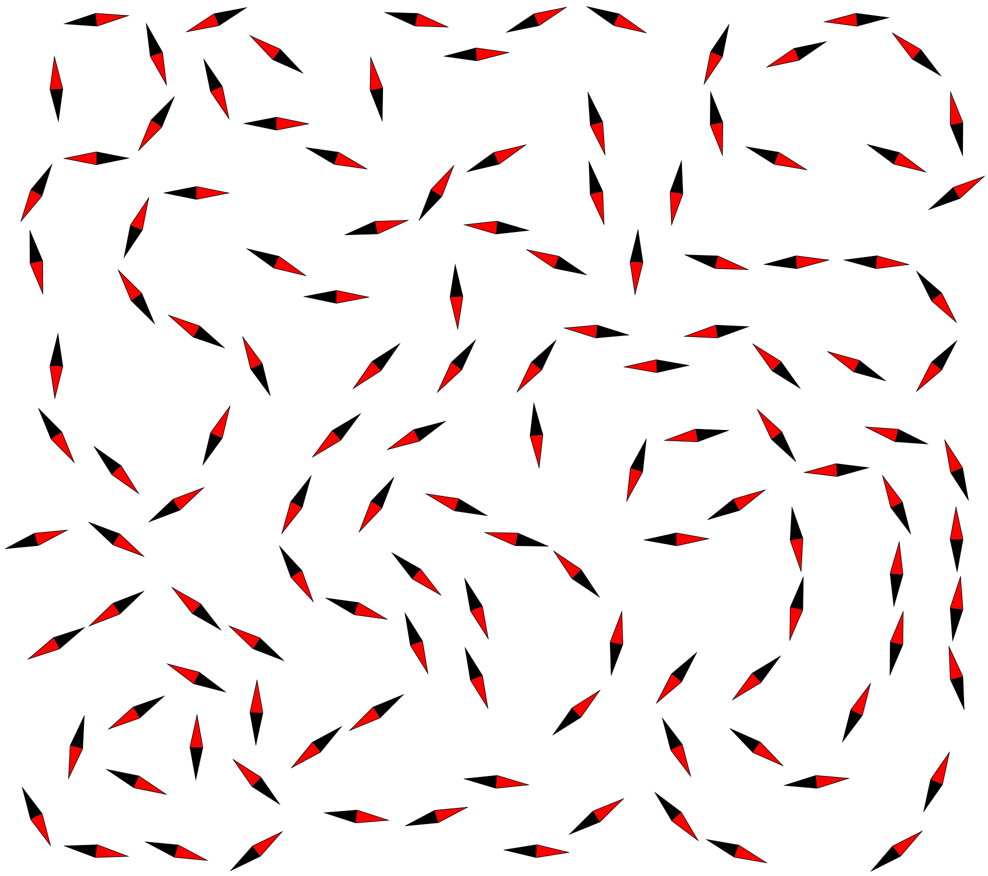


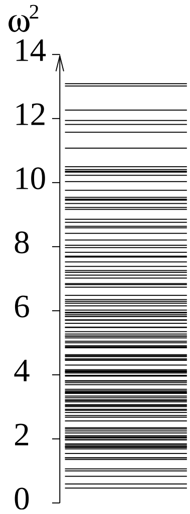
$E_{3000} = -209.83786$ (1 mal) $\omega_1^2 = 0.32726$

Zufallsgitter(12,23) Die Unordnung

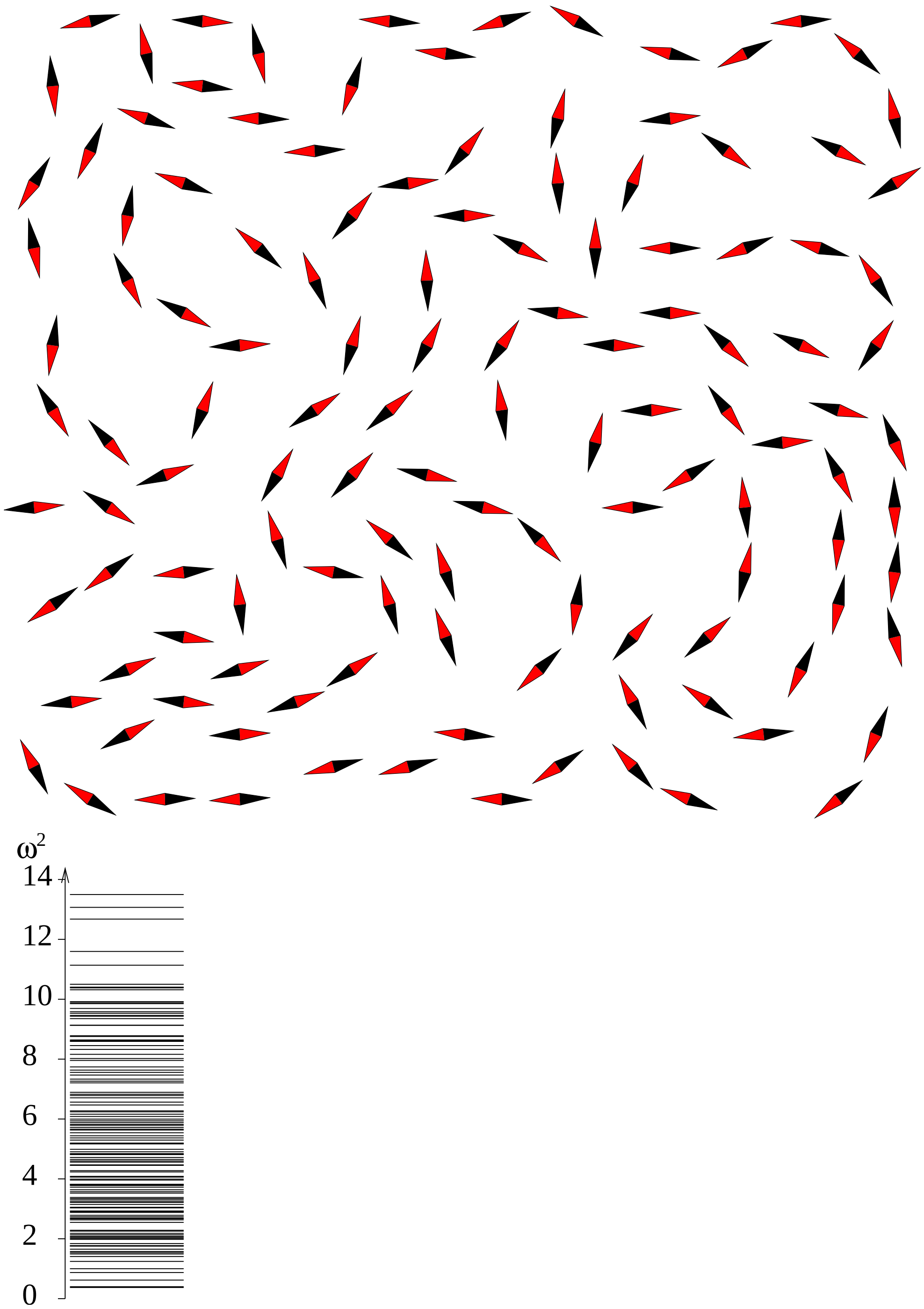


Anzahl Gitterpunkte: 127, Gefundene Energie-Niveaus: 3000, Läufe: 3000

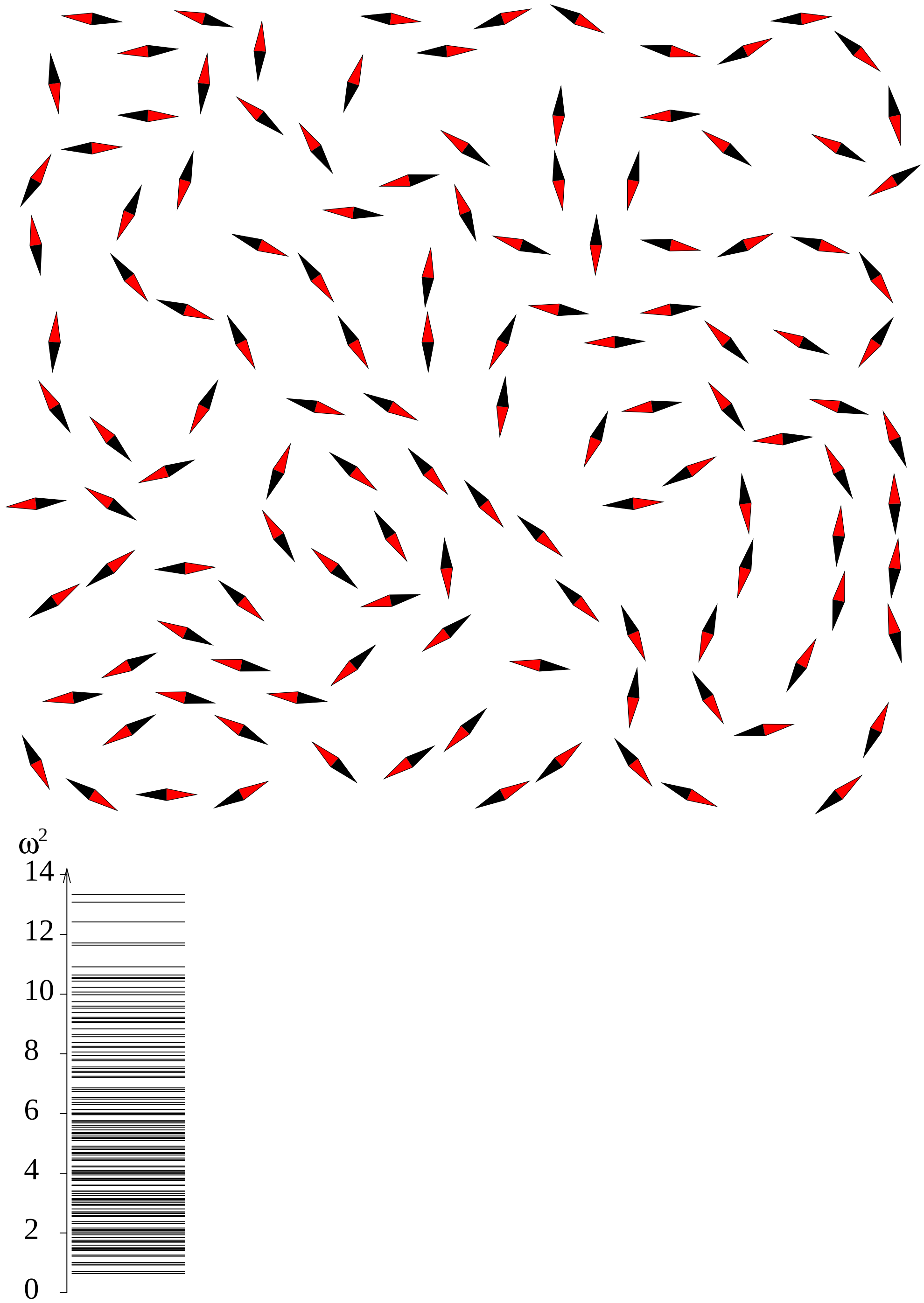




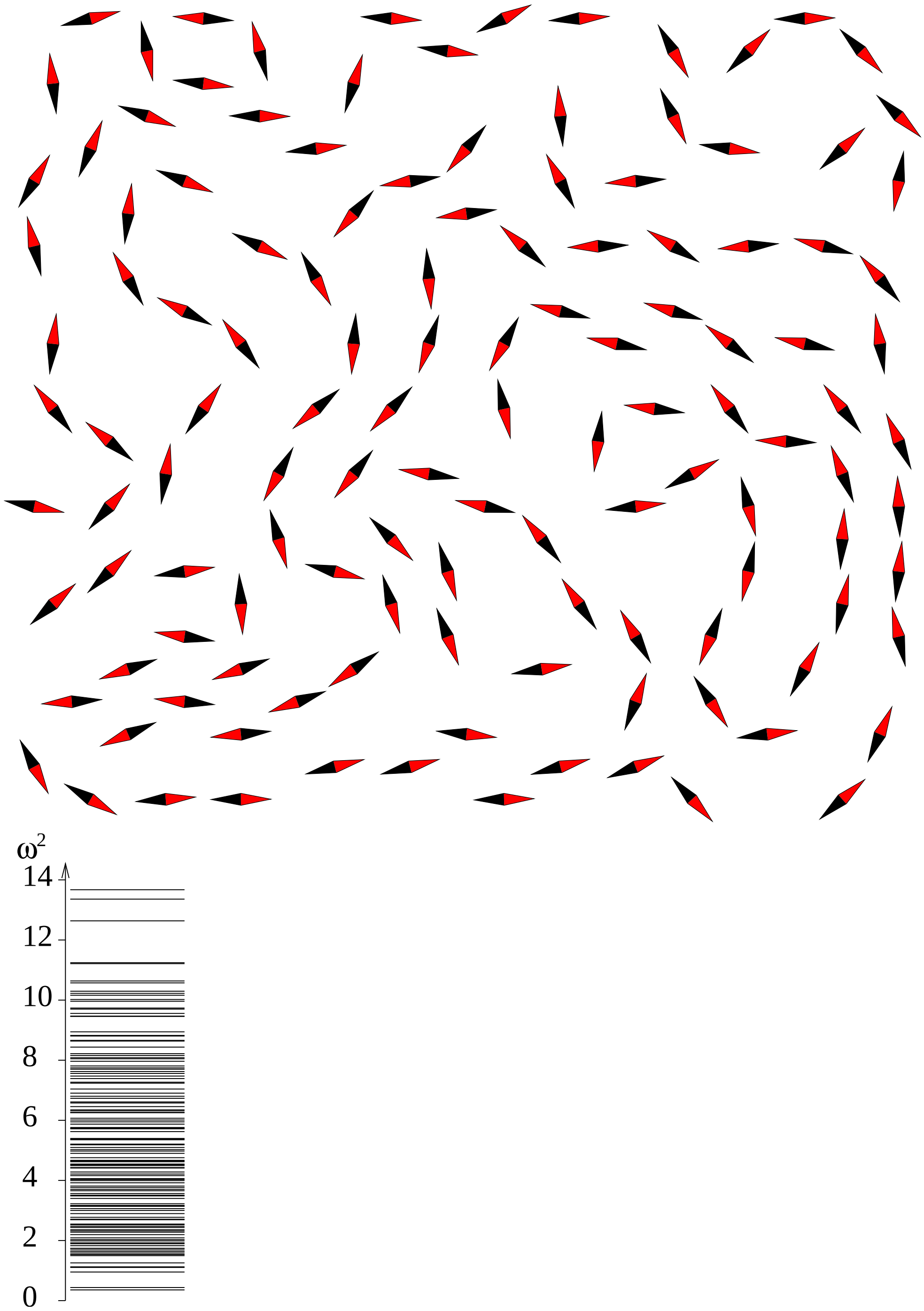
$E_1 = -343.38631$ (1 mal) $\omega_1^2 = 0.46215$



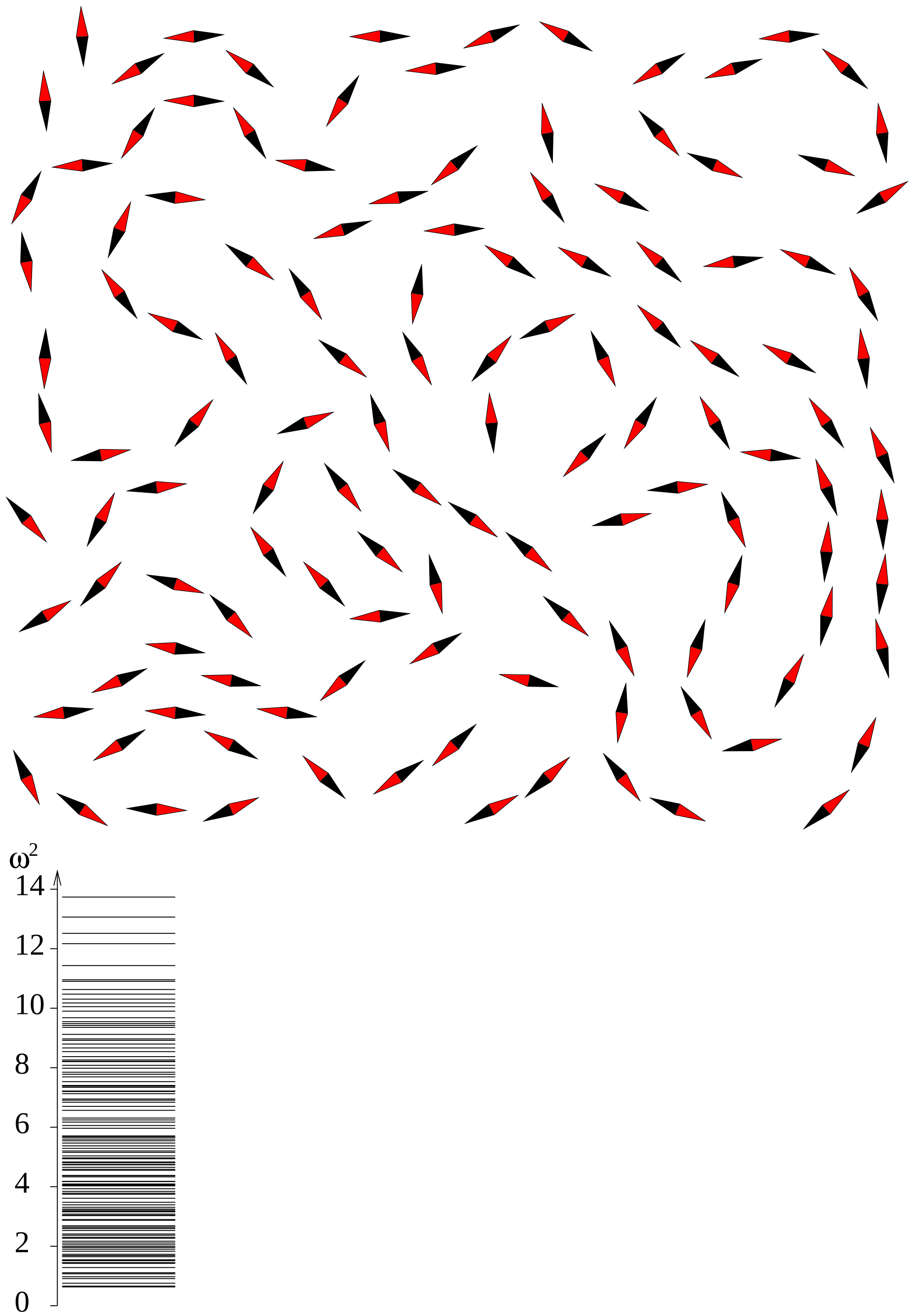
$E_2 = -343.23607$ (1 mal) $\omega_1^2 = 0.37354$



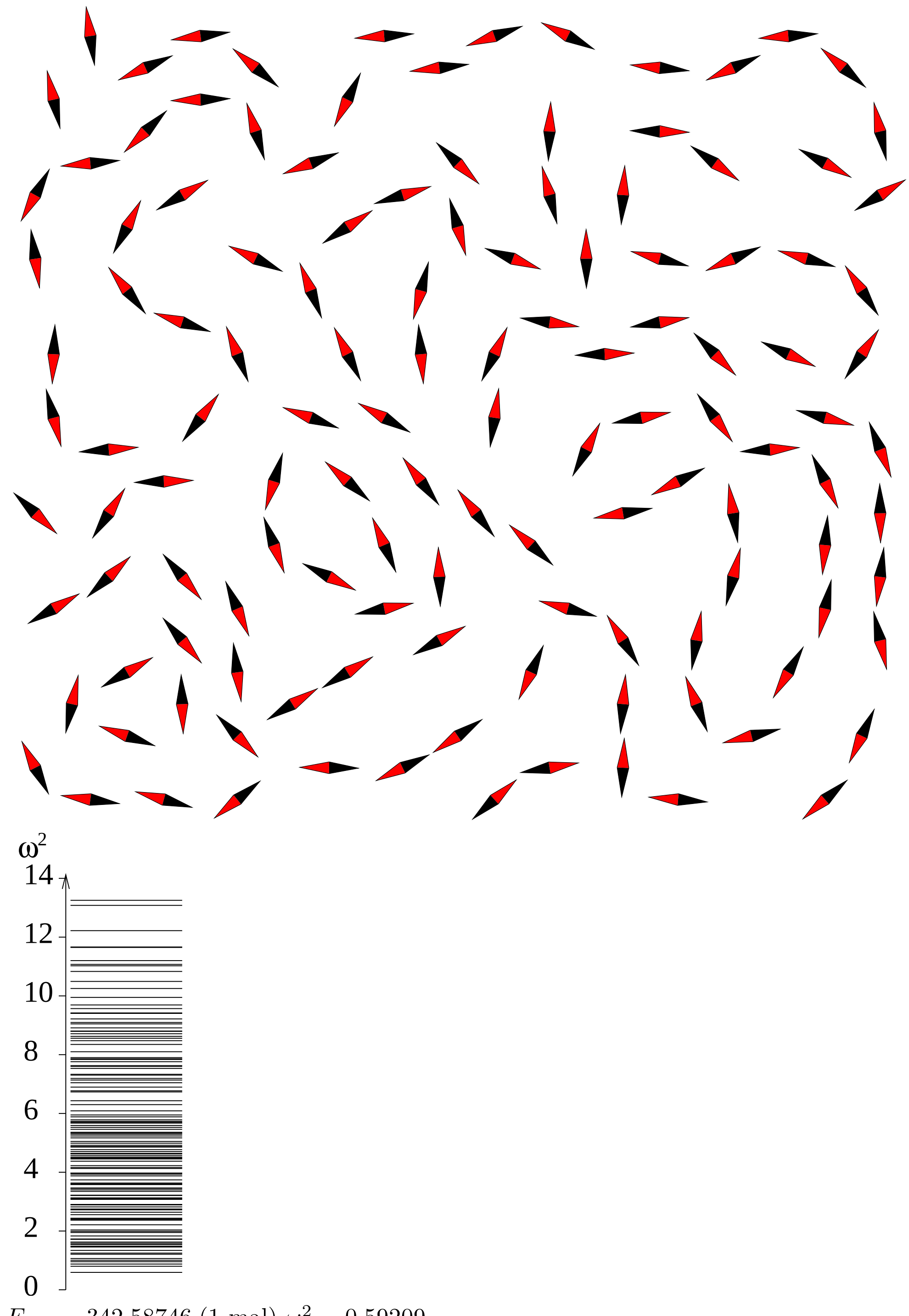
$E_3 = -343.22098$ (1 mal) $\omega_1^2 = 0.64295$



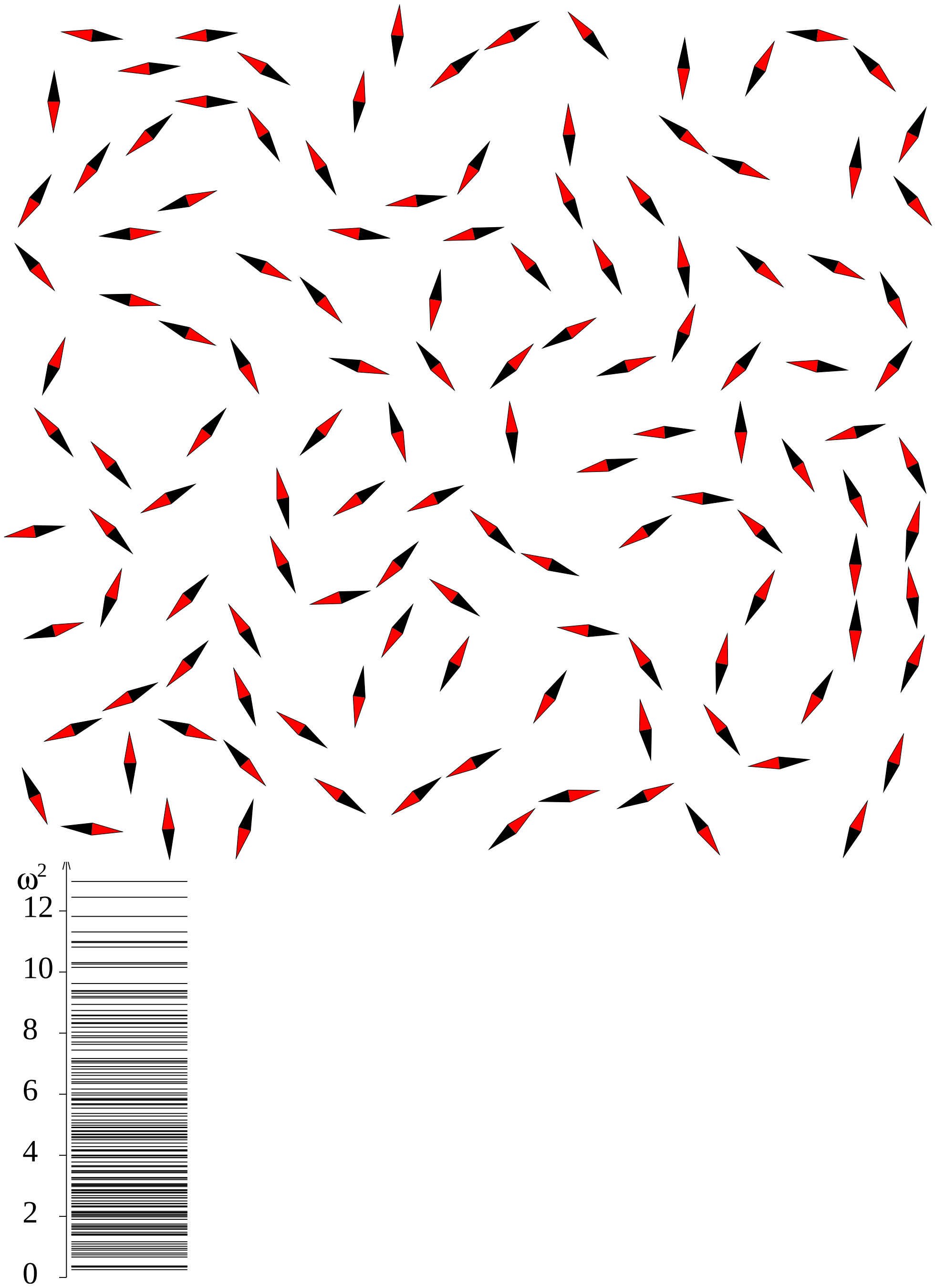
$E_4 = -342.77040$ (1 mal) $\omega_1^2 = 0.35529$



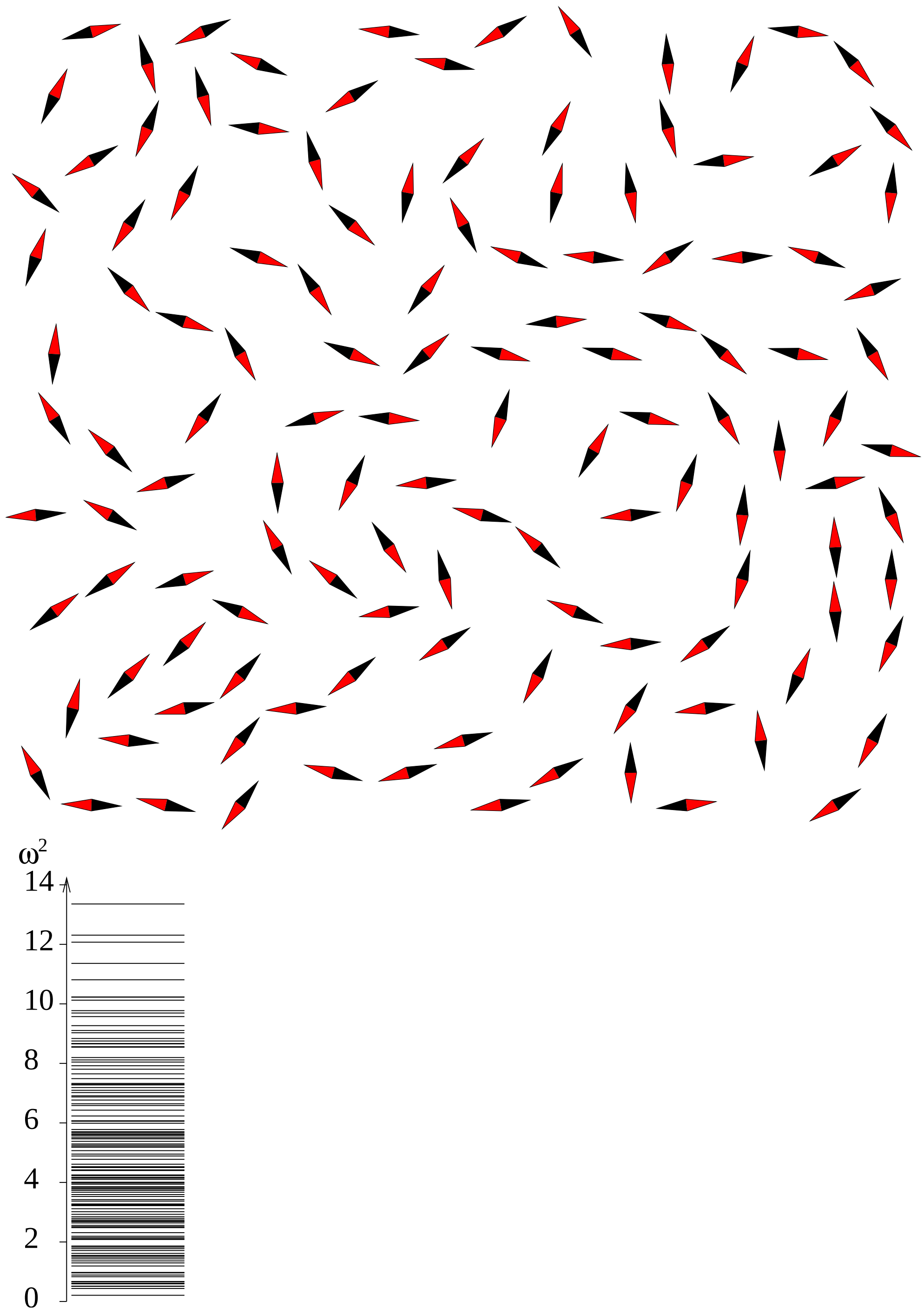
$E_5 = -342.76679$ (1 mal) $\omega_1^2 = 0.63230$



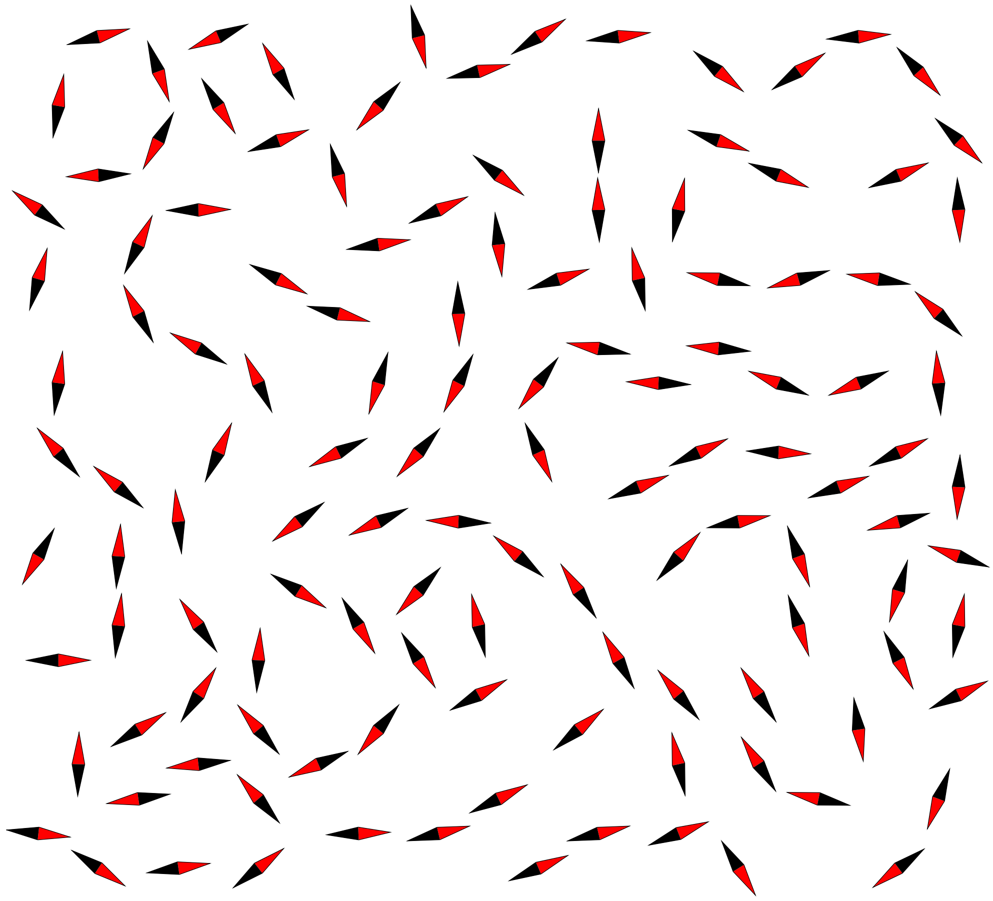
$E_6 = -342.58746$ (1 mal) $\omega_1^2 = 0.59209$

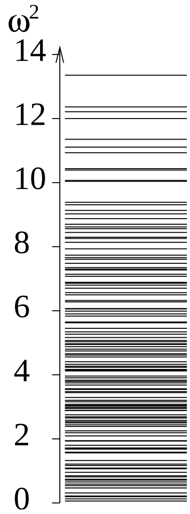


$E_{2998} = -314.09396$ (1 mal) $\omega_1^2 = 0.25719$



$E_{2999} = -312.38136$ (1 mal) $\omega_1^2 = 0.20807$





$E_{3000} = -309.13013$ (1 mal) $\omega_1^2 = 0.05910$

Inhalt