

Copy of a printed graphs referenced as "Diffr. Grating [linitch] of lines (2 to 6)"

Contributors

Fuller, Watson, 1935-

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tors continues and the sum subsequently attains a maximum value when the angle between successive vectors attains the value of π . The polygon has now collapsed to one in which the three vectors double back and forth upon each other (in the figure they are drawn above each other). The effects of the first and second vectors annul each other, leaving the effect of the third one outstanding. At this subsidiary maximum the amplitude of illumination is one-third of the amplitude at the principal maximum—the intensity is one-ninth of that at the principal maximum.

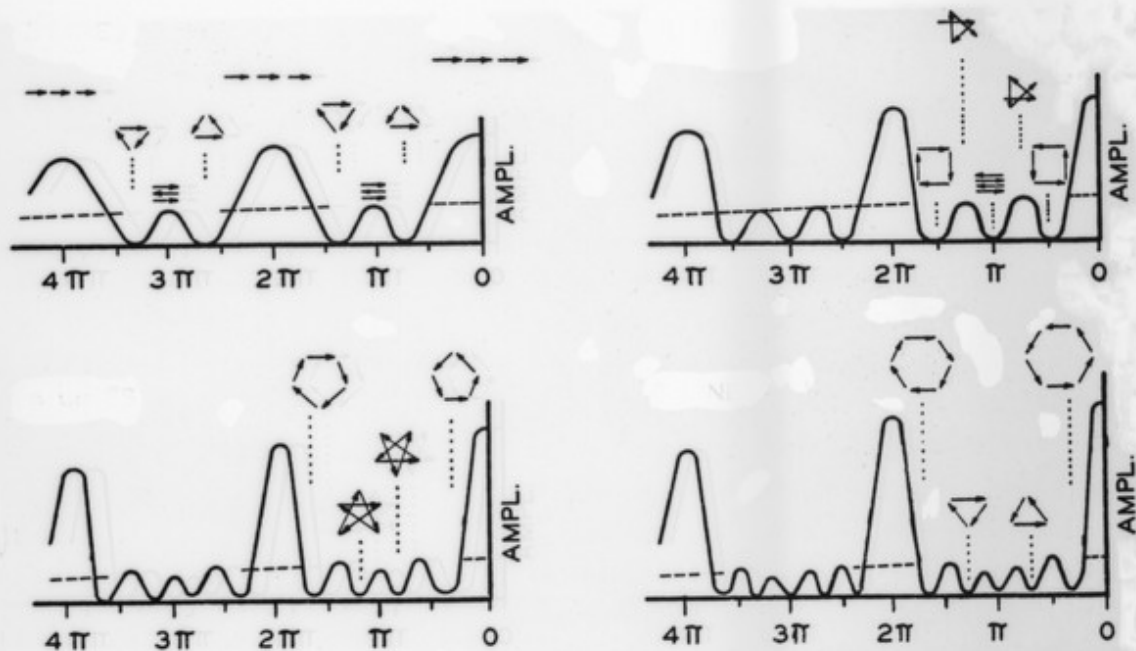


FIG. 111

Beyond this subsidiary maximum the counter-clockwise rotation of the second and third vectors continues, and when it has proceeded so far that an equilateral triangle is again formed, as illustrated, we are at the second minimum in the pattern. It is to be noted that this second triangle is described in the reverse sense from the first one, or clockwise. Beyond this second minimum, as the counter-clockwise rotation of the second and third vectors continues, the amplitude of the pattern increases to a principal maximum. When we reach this maximum the vectors again all point horizontally to the right. Beyond this point the cycle of rotation and the pattern are both repeated except for a modulating