

**Diagram captioned as "physical meaning of the Laue equation  $a.S=h$ "  
referenced as "a.s = h x"**

**Contributors**

Fuller, Watson, 1935-

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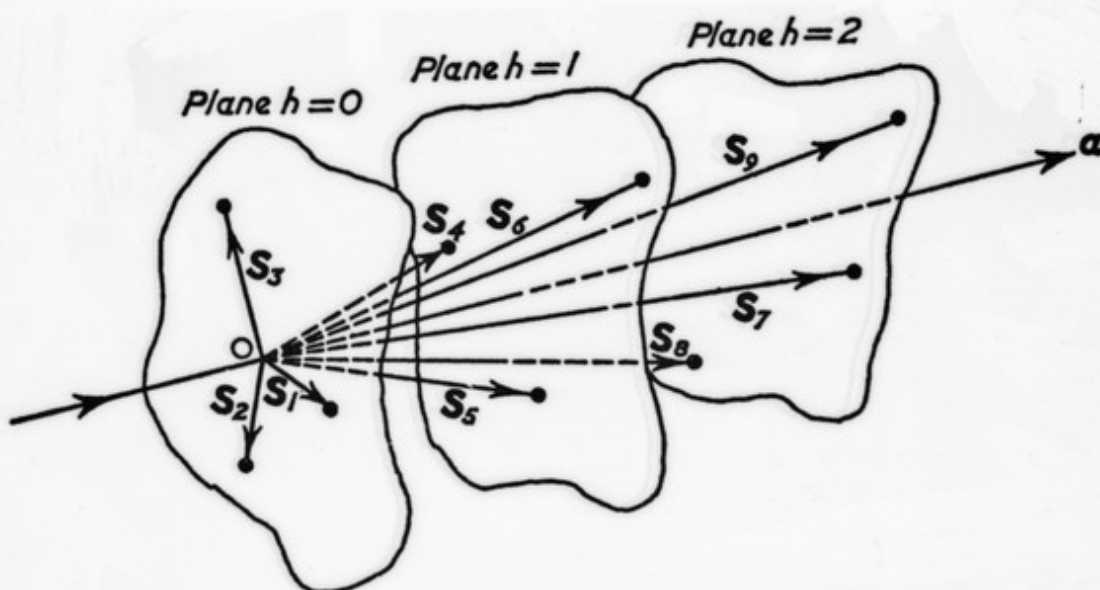


FIG. 16. Physical meaning of the Laue equation  $\mathbf{a} \cdot \mathbf{S} = h$   
 Vectors  $\mathbf{S}_1, \mathbf{S}_2, \mathbf{S}_3$  obey  $\mathbf{a} \cdot \mathbf{S} = 0$   
 Vectors  $\mathbf{S}_4, \mathbf{S}_5, \mathbf{S}_6$  obey  $\mathbf{a} \cdot \mathbf{S} = 1$   
 Vectors  $\mathbf{S}_7, \mathbf{S}_8, \mathbf{S}_9$  obey  $\mathbf{a} \cdot \mathbf{S} = 2$

at points where these three sets cross is the transform observed. The underlying transform, as explained in section 2.9, still decides the relative intensities at the points at which it is observed and it is thus customary to consider the transform as 'sampled' (section 1.5) at the points designated  $l$ , being unobservable