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BY

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lished DIAMAGNETISM as a force of almost univer-  
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ciples which broadly distinguished it from that  
magnetism which peculiarly belongs to iron, but  
which is manifested in a less degree by some  
three or four other metals. M. PIRCKEN dis-  
covered the action of a magnet upon crystallised  
bodies, and gave the name of Magneto-crystalline  
force to it, finding it to be distinct from either  
Magnetism or Diamagnetism by its giving a de-  
termined position to the mass under its influence.  
M. PIRCKEN's investigations led him to believe  
that the direction assumed by a crystal under  
magnetic influence was determined by the optic  
axis of the crystal; and Dr. FARADAY, concurring  
in this view, called it the optic axis force. Dr.  
TYNDALL took up the inquiry at this point, and  
was led to a somewhat different conclusion. He  
appeared to prove that the position of the optic  
axis is not necessarily the line of magneto-crystalline  
force, and that the force which determined the

position of the optic axis in the magnetic  
field was not independent of the magnetism or  
diamagnetism of the mass of the crystal. Beyond  
this Dr. TYNDALL has shown that the lines of  
cleavage seem to influence the position of the  
crystal in the magnetic field, as they will be axial  
in a magnetic and equatorial in a diamagnetic  
crystal; and everything that tends to destroy the  
cleavages tends also to destroy the directive  
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of the papers in which these important researches  
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