



## LXVI. Note on the bands formed by partial interception in the prismatic spectrum

Professor Powell

**To cite this article:** Professor Powell (1846) LXVI. Note on the bands formed by partial interception in the prismatic spectrum , Philosophical Magazine Series 3, 29:196, 474-474, DOI: [10.1080/14786444608645545](https://doi.org/10.1080/14786444608645545)

**To link to this article:** <http://dx.doi.org/10.1080/14786444608645545>



Published online: 30 Apr 2009.



Submit your article to this journal [↗](#)



Article views: 2



View related articles [↗](#)

might furnish the means of proving either the correctness or the fallacious nature of the temperature theory, to which objections have been advanced in this paper.

---

LXVI. *Note on the Bands formed by Partial Interception in the Prismatic Spectrum.* By Professor POWELL.\*

IN a communication to the Physical Section of the British Association at its last meeting, I offered some remarks on the question relative to the above-named singular phænomena; in particular stating *one* experimental result, originally announced by Sir D. Brewster, which I had fully verified, and which had appeared to him at variance with the theory of Mr. Airy, along with *another* fact of my own detection, viz. that when the aperture was contracted the bands became more vivid. No one, I trust, was led, from the manner in which my remarks were reported, to imagine that I brought this forward in any spirit of hostility to the theory. On the contrary, I never entertained a doubt (and I believe I expressed this at the meeting) that upon every ground of analogy and probability the theory would still be found adequate to the solution of the difficulty: I fully expected that it wanted only the introduction of some further condition or modification, though, as it appeared, no such condition had yet been pointed out. It seems that this essential condition, now first brought to notice by the Astronomer Royal in his paper in the last Number of this Journal, had in some way escaped the attention of all those who had read his previous papers in the Philosophical Transactions, ever since the first announcement of Sir David Brewster's objection at the British Association at Manchester, 1842†, and notwithstanding that his detailed repetition of that objection was fully discussed at the Cambridge meeting in 1845. And I am anxious to seize this opportunity of acknowledging and recording my conviction, that it entirely supplies what was wanting to relieve the theory of the objection which seemed to beset it; and that this has proved but one more of those already numerous and striking instances, in which what seemed a most formidable difficulty in the undulatory theory of light has been converted into one of its strongest points of support.

Oxford, November 2, 1846.

\* Communicated by the Author.

† See Report, Sectional Proceedings, p. 12.