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The Colouration of Bird Feathers explained by Effective-Medium Multilayer Modelling

Freyer, Pascal

DOI:
[10.33612/diss.150815549](https://doi.org/10.33612/diss.150815549)

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Document Version
Publisher's PDF, also known as Version of record

Publication date:
2021

[Link to publication in University of Groningen/UMCG research database](#)

Citation for published version (APA):
Freyer, P. (2021). *The Colouration of Bird Feathers explained by Effective-Medium Multilayer Modelling*. [Thesis fully internal (DIV), University of Groningen]. University of Groningen.
<https://doi.org/10.33612/diss.150815549>

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The Author



Born in Windhoek (Namibia) on April 4th, 1990, Pascal Freyer studied Physics at the University of Groningen. For his Bachelor's degree in 2010-2013 he specialized in 'Physics for Life and Health' and for his Master's degree in 2013-2016 he chose the track 'Advanced Materials'. In 2016-2020 he did his PhD in the Surfaces and Thin Films group of the Zernike Institute for Advanced Materials at the University of Groningen under the supervision of Prof. dr. Doekele G. Stavenga, Prof. dr. Petra Rudolf and Dr. Casper J. van der Kooi. Pascal is married to Larissa and they have two daughters, Amelie and Leona.

List of Publications

- Freyer, P., Wilts, B. D. and Stavenga, D. G. (2019). Reflections on iridescent neck and breast feathers of the peacock, *Pavo cristatus*. J. R. Soc. Interface Focus 9, 20180043.
- Freyer, P. and Stavenga, D. G. (2020). Biophotonics of diversely coloured peacock tail feathers. Faraday Discuss., DOI: 10.1039/d0fd00033g.
- Freyer, P. and Stavenga, D. G. (2021). Cortex thickness is key for the colours of bird feather barbules with a single melanosome layer (submitted).
- Freyer, P. and Stavenga, D. G. (2021). Wetting causes structure-dependent colour changes in bird feathers (ready for submission).