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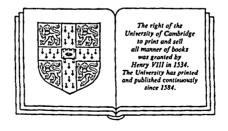
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NOTES FOR CONTRIBUTORS

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- Martin-Luengo, F., Lopez-Azorin, F. & Bernal, M. (1981). Activity of nine cephalosporins against Nocardia asteroides. Proceedings of the 12th Interscience Congress of Chemotherapy (ed. P. Periti and G. G. Grassi), pp. 367-368. Washington, D.C.: American Society for Microbiology.
- MUNDAY, B. L. (1969). The epidemiology of toxoplasmosis with particular reference to the Tasmanian environment. M.V.Sc. thesis, University of Melbourne.

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Original reports and reviews on all aspects of infection of man and animals

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