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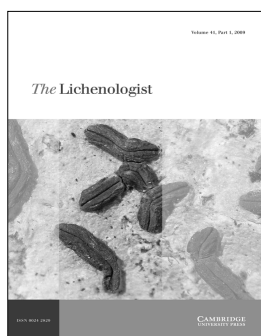
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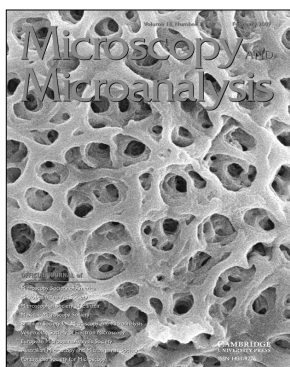
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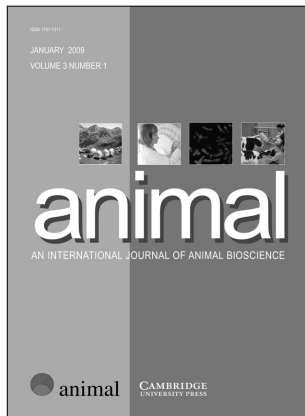
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Front Cover illustration: The cover picture shows the step-wise construction of an *ab initio* network of metabolites derived from *Trypanosoma brucei*. Using ultra high mass accuracy mass spectrometry allows for the determination of the exact mass of small chemicals in a given sample. Measured masses can then be connected in a putative metabolic network: two metabolites are connected if their accurate mass difference can be accounted for by the mass of a chemical group involved in one of the typical biochemical reactions. In this way, the total potential chemical connectivity of metabolites measured in a given experiment can be determined. The figure shows a first generation map of metabolites potentially connected to glycerophosphorylcholine (GPC) (A), then a second generation network where the connectivity partners of those metabolites that link to GPC are included (B). The final network is a sixth generation network, which connects most of the observed metabolites in the sample (C). From Barrett *et al.* Vol. 137(9) pp. 1285–1290.

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Printed in the United Kingdom at the University Press, Cambridge

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