

## Accepted Manuscript

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N. Mortimer, P. van den Bogaard, K. Hoernle, C. Timm, P.B. Gans, R. Werner, F. Riefstahl



PII: S1342-937X(18)30228-4  
DOI: doi:[10.1016/j.gr.2018.07.010](https://doi.org/10.1016/j.gr.2018.07.010)  
Reference: GR 2017  
To appear in: *Gondwana Research*  
Received date: 25 January 2018  
Revised date: 25 July 2018  
Accepted date: 25 July 2018

Please cite this article as: N. Mortimer, P. van den Bogaard, K. Hoernle, C. Timm, P.B. Gans, R. Werner, F. Riefstahl, Late Cretaceous oceanic plate reorganization and the breakup of Zealandia and Gondwana. *Gr* (2018), doi:[10.1016/j.gr.2018.07.010](https://doi.org/10.1016/j.gr.2018.07.010)

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# Late Cretaceous oceanic plate reorganization and the breakup of Zealandia and Gondwana

N. Mortimer<sup>a</sup>, P. van den Bogaard<sup>b</sup>, K. Hoernle<sup>b,c</sup>, C. Timm<sup>d</sup>, P.B. Gans<sup>e</sup>, R. Werner<sup>b</sup> F. Riefstahl<sup>f</sup>

<sup>a</sup>GNS Science, Dunedin 9054, New Zealand

<sup>b</sup>GEOMAR Helmholtz Centre for Ocean Research Kiel, Germany

<sup>c</sup>Christian-Albrechts University of Kiel, Germany

<sup>d</sup>GNS Science, Lower Hutt 5040, New Zealand

<sup>e</sup>University of California, Santa Barbara, CA 93106, USA

<sup>f</sup>AWI Helmholtz Centre for Polar and Marine Research, Bremerhaven, Germany

## Highlights

- New <sup>40</sup>Ar/<sup>39</sup>Ar dates from SW Pacific and Zealandia igneous rocks form the basis of a revised tectonic model
- Intraplate lavas erupted onto continental, LIP and oceanic crust from 99 to 78 Ma
- Spreading ridges and transforms adjusted themselves around a collided Hikurangi Plateau
- Kinematically stable Pacific-Antarctic spreading became established from c. 84 Ma
- Osbourn Trough Sea floor spreading possibly ceased at c. 79 Ma

## Keywords

Igneous rocks, <sup>40</sup>Ar/<sup>39</sup>Ar geochronology, Cretaceous, Gondwana, Zealandia, Pacific Plate

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