

period of eruption (Gill, 1970). However, in rising from great depths and passing through maximum thickness of mantle [compared with stages (1) and (2)], there is greater scope for modification in the incompatible element composition (especially K) through processes involving wall-rock reaction, breakdown of phlogopite and the possible presence of an aqueous vapour phase (D. H. Green and Ringwood, 1967; Jakes and White, 1969; Lambert and Wyllie, 1970). This stage of melting may produce the high K-calc-alkaline series (e.g. Jakes and White, 1969; Jakes and Smith, 1970).

Acknowledgements. This project has been supported in part by funds from the Australian Research Grants Committee (C70/17358) and by Macquarie University research funds. Much of the work has been conducted in the Department of Geophysics and Geochemistry, Australian National University, with facilities kindly made available by Professor A. E. Ringwood and Dr. D. H. Green. Messrs. N. Ware and E. Kiss provided analytical assistance. Professor A. E. Ringwood, Dr. D. H. Green and Mr. R. H. Flood critically read the manuscript.

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