

Contents

| | |
|--|-----|
| Preface | vii |
| DALY, M. C., FUCK, R. A., JULIÀ, J., MACDONALD, D. I. M. & WATTS, A. B. Cratonic basin formation: a case study of the Parnaíba Basin of Brazil | 1 |
| Cratonic basins | |
| SLEEP, N. H. Cratonic basins with reference to the Michigan basin | 17 |
| McKENZIE, D. & RODRÍGUEZ TRIBALDOS, V. Lithospheric heating by crustal thickening: a possible origin of the Parnaíba Basin | 37 |
| WATTS, A. B., TOZER, B., DALY, M. C. & SMITH, J. A comparative study of the Parnaíba, Michigan and Congo cratonic basins | 45 |
| The Parnaíba cratonic basin: lithospheric and crustal structure | |
| SOARES, J. E. P., STEPHENSON, R., FUCK, R. A., DE LIMA, M. V. A. G., DE ARAÚJO, V. C. M., LIMA, F. T., ROCHA, F. A. S. & DA TRINDADE, C. R. Structure of the crust and upper mantle beneath the Parnaíba Basin, Brazil, from wide-angle reflection–refraction data | 67 |
| COELHO, D. L. O., JULIÀ, J., RODRÍGUEZ-TRIBALDOS, V. & WHITE, N. Deep crustal architecture of the Parnaíba basin of NE Brazil from receiver function analysis: implications for basin subsidence | 83 |
| MANENTI, R. R., SOUZA, W. E. & PORSANI, M. J. Reprocessing and interpretation of deep structures in a regional transect of the Parnaíba Basin, Brazil | 101 |
| SOLON, F. F., FONTES, S. L. & LA TERRA, E. F. Electrical conductivity structure across the Parnaíba Basin, NE Brazil | 109 |
| PORTO, A., DALY, M. C., LA TERRA, E. & FONTES, S. The pre-Silurian Riachão basin: a new perspective on the basement of the Parnaíba basin, NE Brazil | 127 |
| RODRÍGUEZ TRIBALDOS, V. & WHITE, N. Implications of preliminary subsidence analyses for the Parnaíba cratonic basin | 147 |
| The Parnaíba cratonic basin: stratigraphic and sedimentological evolution | |
| MENZIES, L. A., CARTER, A. & MACDONALD, D. I. M. Evolution of a cratonic basin: insights from the stratal architecture and provenance history of the Parnaíba Basin | 157 |
| HOLLANDA, M. H. B. M., GÓES, A. M. & NEGRI, F. A. Provenance of sandstones in the Parnaíba Basin through detrital zircon geochronology | 181 |
| JAJU, M. M., MORT, H. P., NADER, F. H., FILHO, M. L. & MACDONALD, D. I. M. Palaeogeographical and palaeoclimatic evolution of the intracratonic Parnaíba Basin, NE Brazil using GPlates plate tectonic reconstructions and chemostratigraphic tools | 199 |
| IANNUZZI, R., NEREGATO, R., CISNEROS, J. C., ANGIELCZYK, K. D., RÖBLER, R., ROHN, R., MARSICANO, C., FRÖBISCH, J., FAIRCHILD, T., SMITH, R. M. H., KURZAWA, F., RICHTER, M., LANGER, M. C., TAVARES, T. M. V., KAMMERER, C. F., CONCEIÇÃO, D. M., PARDO, J. D. & ROESLER, G. A. Re-evaluation of the Permian macrofossils from the Parnaíba Basin: biostratigraphic, palaeoenvironmental and palaeogeographical implications | 223 |

The Parnaíba cratonic basin: magmatic history

HEILBRON, M., GUEDES, E., MANE, M., VALERIANO, C. DE M., TUPINAMBÁ, M., ALMEIDA, J., SILVA, L. G. DO E., PASCHOAL DUARTE, B., FAVERA, J. C. D. & VIANA, A. Geochemical and temporal provinciality of the magmatism of the eastern Parnaíba Basin, NE Brazil 251

OLIVEIRA, A. L., PIMENTEL, M. M., FUCK, R. A. & OLIVEIRA, D. C. Petrology of Jurassic and Cretaceous basaltic formations from the Parnaíba Basin, NE Brazil: correlations and associations with large igneous provinces 279

KLÖCKING, M., WHITE, N. & MACLENNAN, J. Role of basaltic magmatism within the Parnaíba cratonic basin, NE Brazil 309

TROSDTORF, I. JR, NETO, J. M. M., SANTOS, S. F., PORTELA FILHO, C. V., DALL OGLIO, T. A., GALVES, A. C. M. & SILVA, A. M. Phanerozoic magmatism in the Parnaíba Basin: characterization of igneous bodies (well logs and 2D seismic sections), geometry, distribution and sill emplacement patterns 321

The Parnaíba cratonic basin: resource system

DE MIRANDA, F. S., VETTORAZZI, A. L., CUNHA, P. R. DA C., ARAGÃO, F. B., MICHELON, D., CALDEIRA, J. L., PORSCHÉ, E., MARTINS, C., RIBEIRO, R. B., VILELA, A. F., CORRÊA, J. R., SILVEIRA, L. S. & ANDREOLA, K. Atypical igneous-sedimentary petroleum systems of the Parnaíba Basin, Brazil: seismic, well logs and cores 341

ABELHA, M., PETERSOHN, E., BASTOS, G. & ARAÚJO, D. New insights into the Parnaíba Basin: results of investments by the Brazilian National Petroleum Agency 361

Index 367