

## Contents

Foreword	vii
Acknowledgements	ix
MASCLE, A. & PUIGDEFÀBREGAS, C. Tectonics and sedimentation in foreland basins: results from the Integrated Basins Studies project	1
<b>Guadalquivir and Ebro Foreland Basins (Spain)</b>	
FERNÁNDEZ, M., BERÁSTEGUI, X., PUIG, C., GARCÍA-CASTELLANOS, D., JURADO, M. J., TORNÉ, M. & BANKS, C. Geophysical and geological constraints on the evolution of the Guadalquivir Foreland Basin, Spain	29
BERÁSTEGUI, X., BANKS, C. J., PUIG, C., TABERNER, C., WALTHAM, D. & FERNÁNDEZ, M. Lateral diapiric emplacement of Triassic evaporites at the southern margin of the Guadalquivir Basin, Spain	49
WILLIAMS, E. A., FORD, M., VERGÉS, J. & ARTONI, A. Alluvial gravel sedimentation in a contractional growth fold setting, Sant Llorenç de Morunys, southeastern Pyrenees	69
VERGÉS, J., MARZO, M., SANTA EULÀRIA, T., SERRA-KIEL, J., BURBANK, D. W., MUÑOZ, J. A. & GIMÉNEZ-MONTSANT, J. Quantified vertical motions and tectonic evolution of the SE Pyrenean foreland basin	107
NIJMAN, W. Cyclicity and basin axis shift in a piggyback basin: towards modelling of the Eocene Tresp-Ager Basin, south Pyrenees, Spain	135
TRAVÉ, A., LABAUME, P., CALVET, F., SOLER, A., TRITLLA, J., BUATIER, M., POTDEVIN, J.-L., SÉGURET, M., RAYNAUD, S. & BRIQUEU, L. Fluid migration during Eocene thrust emplacement in the south Pyrenean foreland basin (Spain): an integrated structural, mineralogical and geochemical approach	163
<b>French Western Alps</b>	
LICKORISH, W. H. & FORD, M. Sequential restoration of the external Alpine Digne thrust system, SE France, constrained by kinematic data and synorogenic sediments	189
ARTONI, A. & MECKEL, L. D. History and deformation rates of a thrust sheet top basin: the Barrême basin, western Alps, SE France	213
PHILLIPPE, Y., DEVILLE, E. & MASCLE, A. Thin-skinned inversion tectonics at oblique basin margins: example of the western Vercors and Chartreuse Subalpine massifs (SE France)	239
BECK, C., DEVILLE, E., BLANC, E., PHILLIPPE, Y. & TARDY, M. Horizontal shortening control of Middle Miocene marine siliciclastic accumulation (Upper Marine Molasse) in the southern termination of the Savoy Molasse Basin (northwestern Alps/southern Jura)	263
<b>Swiss, German and Austrian Molasse Basin</b>	
BURKHARD, M. & SOMMARUGA, A. Evolution of the western Swiss Molasse basin: structural relationships with the Alps and the Jura belt	279
ZWEIGEL, J., AIGNER, T. & LUTERBACHER, H. Eustatic versus tectonic controls on Alpine foreland basin fill: sequence stratigraphy and subsidence analysis in the SE German molasse	299

ZWEIGEL, J. Reservoir analogue modelling of sandy tidal sediments, Upper Marine Molasse, SW Germany, Alpine foreland basin	325
WAGNER, L. R. Tectono-stratigraphy and hydrocarbons in the Molasse Foredeep of Salzburg, Upper and Lower Austria	339
<b>Numerical Modelling</b>	
BORNHOLDT, S. & WESTPHAL, H. Automation of stratigraphic simulations: quasi-backward modelling using genetic algorithms	371
DEN BEZEMER, T., KOOI, H., PODLADCHIKOV, Y. & CLOETINGH, S. Numerical modelling of growth strata and grain-size distributions associated with fault-bend folding	381
ANDEWEG, B. & CLOETINGH, S. Flexure and 'unflexure' of the North Alpine German–Austrian Molasse Basin: constraints from forward tectonic modelling	403
Index	423