## Contents

Preface vii  
Dedication ix  

**Reddy, S. M. & Buchan, C.** Constraining kinematic rotation axes in high-strain zones: a potential microstructural method? 1  

**Koehn, D., Arnold, J. & Passchier, C. W.** Fracture and vein patterns as indicators of deformation history: a numerical study 11  

**Mirabella, F., Boccali, V. & Barchi, M. R.** Segmentation and interaction of normal faults within the Colfiorito fault system (central Italy) 25  

**Austin, N. J. & Kennedy, L. A.** Textural controls on the brittle deformation of dolomite: variations in peak strength 37  

**Austin, N. J., Kennedy, L. A., Logan, J. M. & Rodway, R.** Textural controls on the brittle deformation of dolomite: the transition from brittle faulting to cataclastic flow 51  

**Renard, F., Andréani, M., Boullier, A.-M. & Labaume, P.** Crack–seal patterns: records of uncorrelated stress release variations in crustal rocks 67  

**Zubtsov, S., Renard, F., Gratier, J.-P., Dysthe, D. K. & Traskine, V.** Single-contact pressure solution creep on calcite monocrystals 81  

**Baratoux, L., Schulmann, K., Ulrich, S. & Lexa, O.** Contrasting microstructures and deformation mechanisms in metagabbro mylonites contemporaneously deformed under different temperatures (c. 650 °C and c. 750 °C) 97  

**Gueydan, F., Mehl, C. & Parra, T.** Stress–strain rate history of a midcrustal shear zone and the onset of brittle deformation inferred from quartz recrystallized grain size 127  

**Drury, M. R.** Dynamic recrystallization and strain softening of olivine aggregates in the laboratory and the lithosphere 143  

**Ranalli, G., Martin, S. & Mahatsete, R.** Continental subduction and exhumation: an example from the Ulten Unit, Tonale Nappe, Eastern Austroalpine 159  


**Blenkinsop, T. G. & Kisters, A. F. M.** Steep extrusion of late Archaean granulites in the Northern Marginal Zone, Zimbabwe: evidence for secular change in orogenic style 193
CONTENTS

BROWN, M. Synergistic effects of melting and deformation: an example from the Variscan belt, western France 205


HANDY, M. R. BABIST, J., WAGNER, R., ROSENBERG, C. & KONRAD, M. Decoupling and its relation to strain partitioning in continental lithosphere: insight from the Periadriatic fault system (European Alps) 249

WILLINGSHOFER, E., SOKOUTIS, D. & BURG, J.-P. Lithospheric-scale analogue modelling of collision zones with a pre-existing weak zone 277

DELACOU, B., SUE, C., CHAMPAGNAC, J.-D. & BURKHARD, M. Origin of the current stress field in the western/central Alps: role of gravitational re-equilibration constrained by numerical modelling 295

Index 311