Contents

Theme issue: Microdynamics of ice

PREFACE

Microdynamics of ice
P Sammonds, M Montagnat, P Bons and M Schneebeli

INTRODUCTION

Ice microstructures and microdynamics
P Sammonds, M Montagnat, P Bons and M Schneebeli

ARTICLES

Investigation of nucleation processes during dynamic recrystallization of ice using cryo-EBSD
T Chauve, M Montagnat, F Barou, K Hidas, A Tommasi and D Mainprice

Dynamic recrystallization during deformation of polycrystalline ice: insights from numerical simulations
M-G Llorens, A Grieria, F Steinbach, PD Bons, E Gomez-Rivas, D Jansen, J Roessiger, RA Lebensohn and I Weikusat

Physical analysis of an Antarctic ice core — towards an integration of micro- and macrodynamics of polar ice
I Weikusat, D Jansen, T Binder, J Eichler, SH Faria, F Wilhelms, S Kipfstuhl, S Sheldon, H Miller, D Dahl-Jensen and T Kleiner

The effect of rock particles and D₂O replacement on the flow behaviour of ice
CA Middleton, PM Grindrod and PR Sammonds 20150349

Micromechanics of sea ice frictional slip from test basin scale experiments
PR Sammonds, DC Hatton and DL Feltham 20150354

Temperature dependence of ice-on-rock friction at realistic glacier conditions
C McCarthy, H Savage and M Nettles 20150348

Recrystallization and damage of ice in winter sports
A Seymour-Pierce, B Lishman and P Sammonds 20150353

The influence of closed brine pockets and permeable brine channels on the thermo-elastic properties of saline ice
A Marchenko and B Lishman 20150351

Linking scales in sea ice mechanics
J Weiss and V Dansereau 20150352