

DOCTORAL CANDIDATE: Cornelia Roffeis
DEGREE: Philosophiae Doctor
FACULTY: Faculty of Mathematics and Natural Sciences
DEPARTMENT: Geosciences
AREA OF EXPERTISE: Geochronology
SUPERVISORS: Fernando Corfu, Arild Andresen, Roy H. Gabrielsen
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DISSERTATION TITLE: U-Pb ID-TIMS geochronology and evolution of Caledonian Nappes in southern Norway

430 million years ago, two continents, Baltica and Laurentia, collided, forming the Caledonian mountain range. This orogeny shaped the tectonostratigraphy of Norway. It led to the thrusting of nappes with different origin onto Baltic basement rocks. The majority of these nappes in SW-Norway were traditionally considered to be detached slices from Baltic crust. Therefore, in addition to reflecting the Caledonian event, they also contain valuable information of the pre-Caledonian evolution of the underlying basement rocks, namely the Sveconorwegian orogeny. This doctoral thesis is based on U-Pb ID-TIMS age determinations on rocks of various smaller nappes in SW-Norway, with the aim to establish a time frame for evolutionary processes and subsequent correlation of co-genetic nappes. Comparison with basement terranes can furthermore indicate the provenance of a nappe prior to Caledonian thrusting. The age data therefore not only contributes to a better understanding of the Caledonian orogeny but also of the Sveconorwegian evolution. A new, refined tectonographic correlation of the nappes in SW-Norway is suggested