**INTRODUCTION**

We challenge the generally accepted view that continent-continent collision results in doubly verging orogenic wedges with subduction and subduction of the overriding plate. Instead, we argue that subduction is not required to form the propagating wedges in the lower and upper plates and that the plate contact is the exception rather than the rule during collision.

In this contribution, we use simple lithospheric-scale analogue experiments to infer rheological structure and to develop a theory of subduction and subduction termination. Our approach is based on the observation that decoupling horizons are key variable in the development of subduction, and is together with the rheological structure of the lower and upper plates, in particular the rheological conditions for the development of retro-wedges. In intermediate temperature experiments, the rheological structure of the lower and upper plates is important for the development of retro-wedges. In this contribution, we use simple lithospheric-scale analogue experiments to infer favourable conditions for the formation of retro-wedges.

**CONCLUSIONS**

1. **strong coupling at the plate interface (experiments A1, B1)**
2. **weak layers within the crust of the upper plate (experiment B4)**
3. **weak oрогenic wedge (experiments of series A)**
4. **lateral increase of lower crust rheology (experiment B2)**

**REFERENCES**


