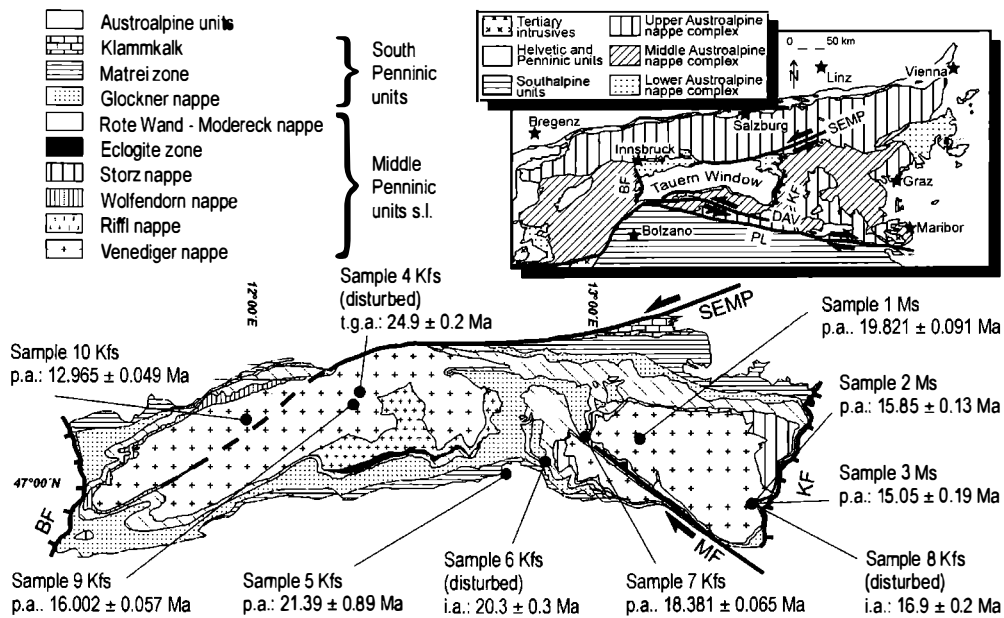


**<sup>40</sup>Ar/<sup>39</sup>Ar AGES FROM ADULARIA AND WHITE MICA CONSTRAIN THE TIMING OF VEIN-FORMATION IN THE TAUERN WINDOW (EASTERN ALPS, AUSTRIA)**

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Preliminary <sup>40</sup>Ar/<sup>39</sup>Ar analyses have been carried out on seven adularia and three white mica samples collected from open-spaced, crystal-bearing extensional veins within different tectonic units of the Tauern Window, Eastern Alps. Adularia and white mica have been formed within these veins under mesothermal conditions, i.e., c. 200–400°C. As closure temperatures for white mica (c. 450°C) and K-feldspar (c. 250°C) are in the same range as temperatures of vein formation, the ages reported are interpreted to record formation and not cooling ages of the minerals. There is no observed correlation of sample mineralogy and the ages obtained. The ages are therefore interpreted to record three stages of hydrothermal activity contemporaneous with, and associated to, E-W extension due to indentation tectonics.



**Fig. 1:** Location of adularia (Kfs) and white mica (Ms) samples within the Tauern Window. BF: Brenner low-angle normal fault, KF: Katschberg low-angle normal fault, MF: Möll-valley fault, SEMP: Salzach-Ennstal-Mariazell-Puchberg fault; Ages reported for the undisturbed samples are plateau ages (p.a.), and integrated (i.a.) or total gas ages (t.g.a.) where the Ar-release spectrum indicates isotopic disturbances.