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Turkic Type Orogeny and a Short History of the Last 600 Million Years

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Altaids are a Turkic-type orogen: Turkic-type orogeny, a kind of collisional orogeny involving the growth and final collision of large subduction-accretion prisms, generally with significant net crustal growth, leads to rising sea-level, low Sr87/Sr86 ratio in sea-water and an equable, generally ice-cap free "greenhouse" world climate during its subductive growth phase. When its growth is arrested by collision, it leads to sinking sea-level, high Sr87/Sr86 ratio in sea-water and a harsh "icehouse" world climate commonly with recurrent ice ages. Greenhouse/icehouse worlds thus generally correspond to the subductive growth and collisional destruction phases of Turkic-type accretionary complexes. At any one time in earth history there have been few Turkic-type orogenic systems on earth; their subductive growth has been slow and spans long time intervals, by contrast their collisional destruction has been much swifter. If the model presented in this paper is correct, much of the earth's physical geography may have been influenced by Turkic-type orogeny at least during the Phanerozoic. This seems to hold true also for the later Proterozoic, although data precision does not allow as good inferences as one can draw for the Phanerozoic world. for a long time turkic-type orogenyhd not been recognised, because their best examples had not been among the classically-known areas in the western world, despite the fact that Eduard suess in his Antlitz der Erde had described them and emphasised their distinctness. this situation has been rmedied since the early nineties.