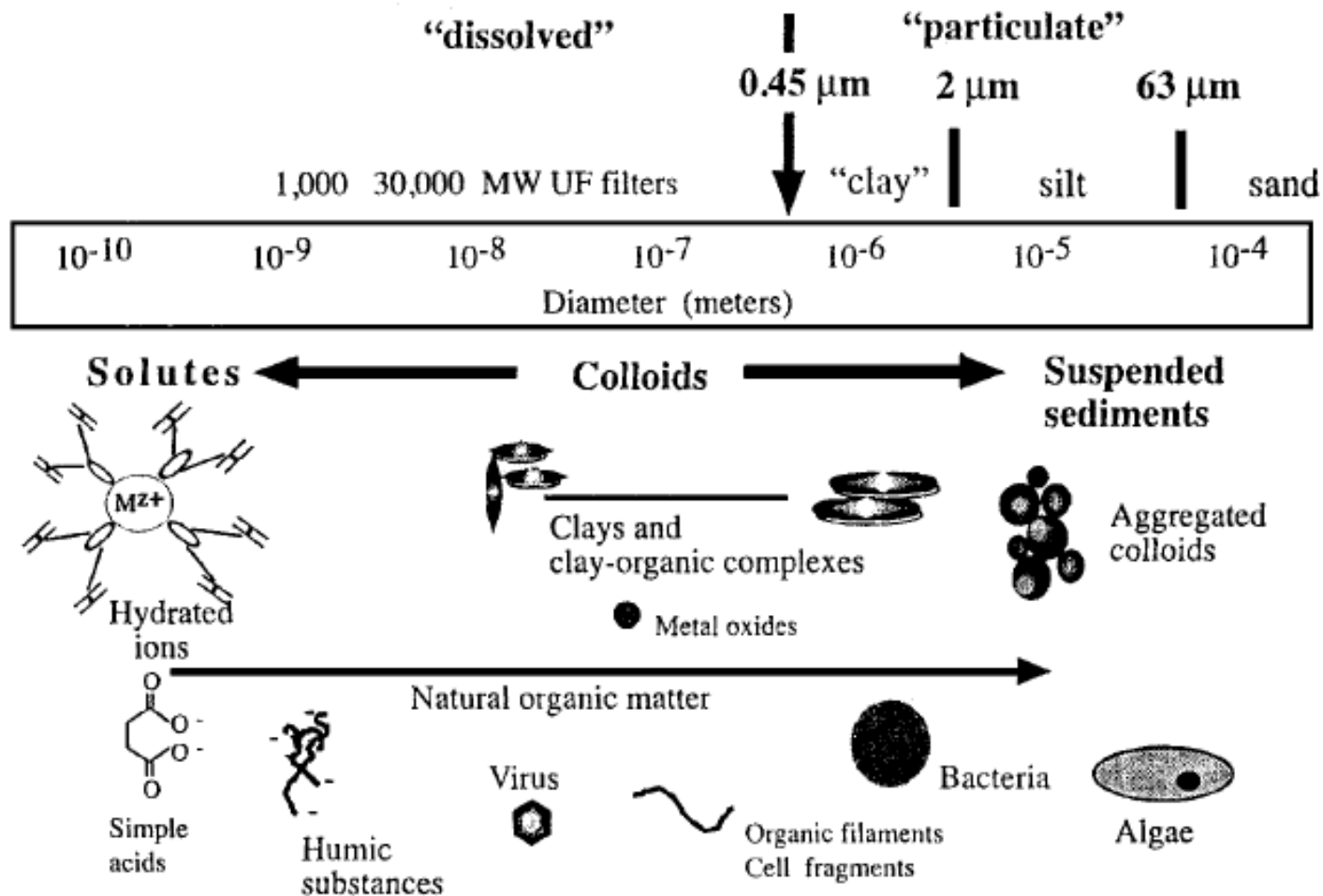
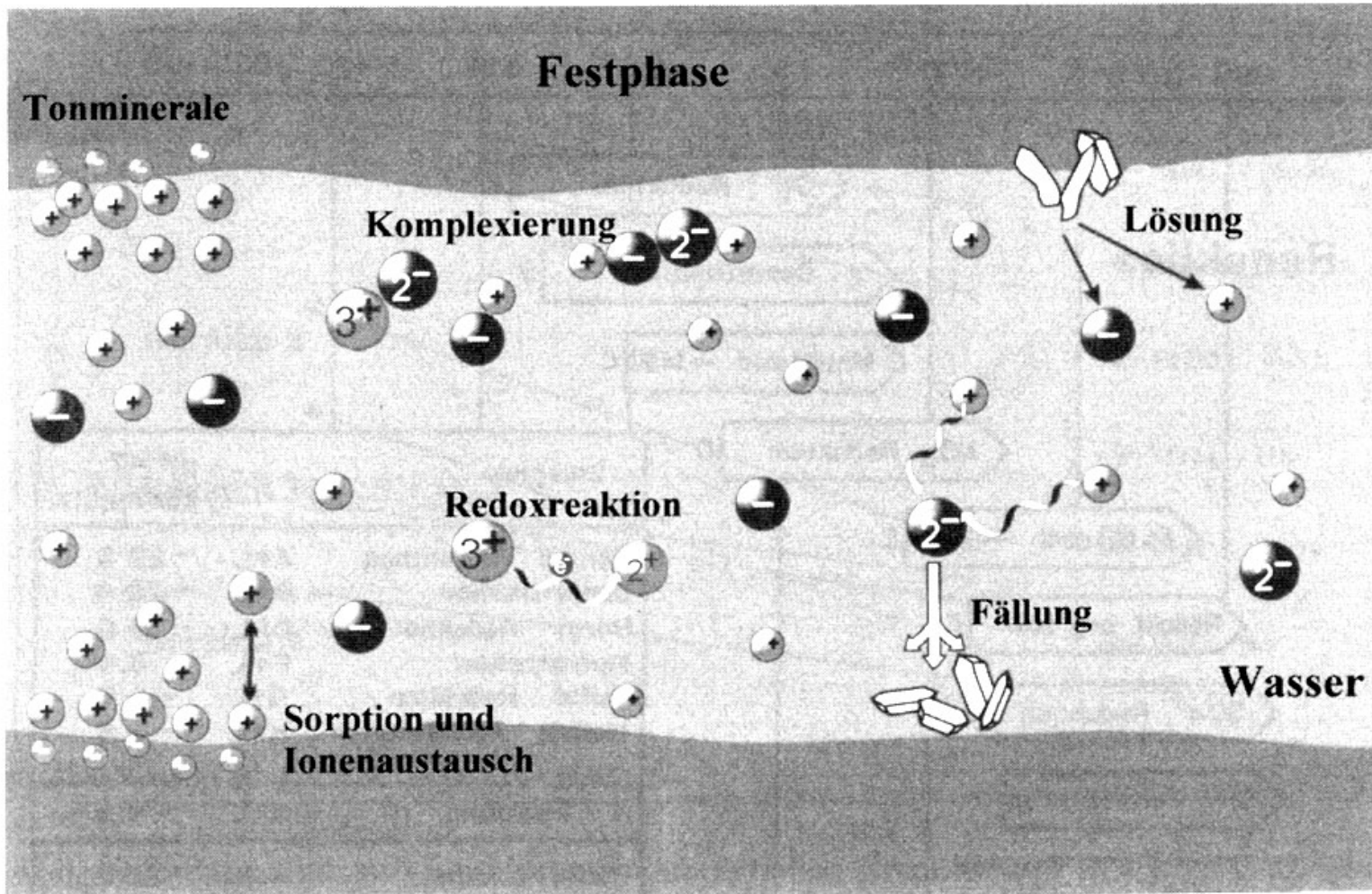


Wasserinhaltsstoffe



... und deren Reaktionen



aus Merkel B.J. & Planer-Friedrich B. (2002): Grundwasserchemie. Springer. 219 p.

Natürliche Konzentrationen

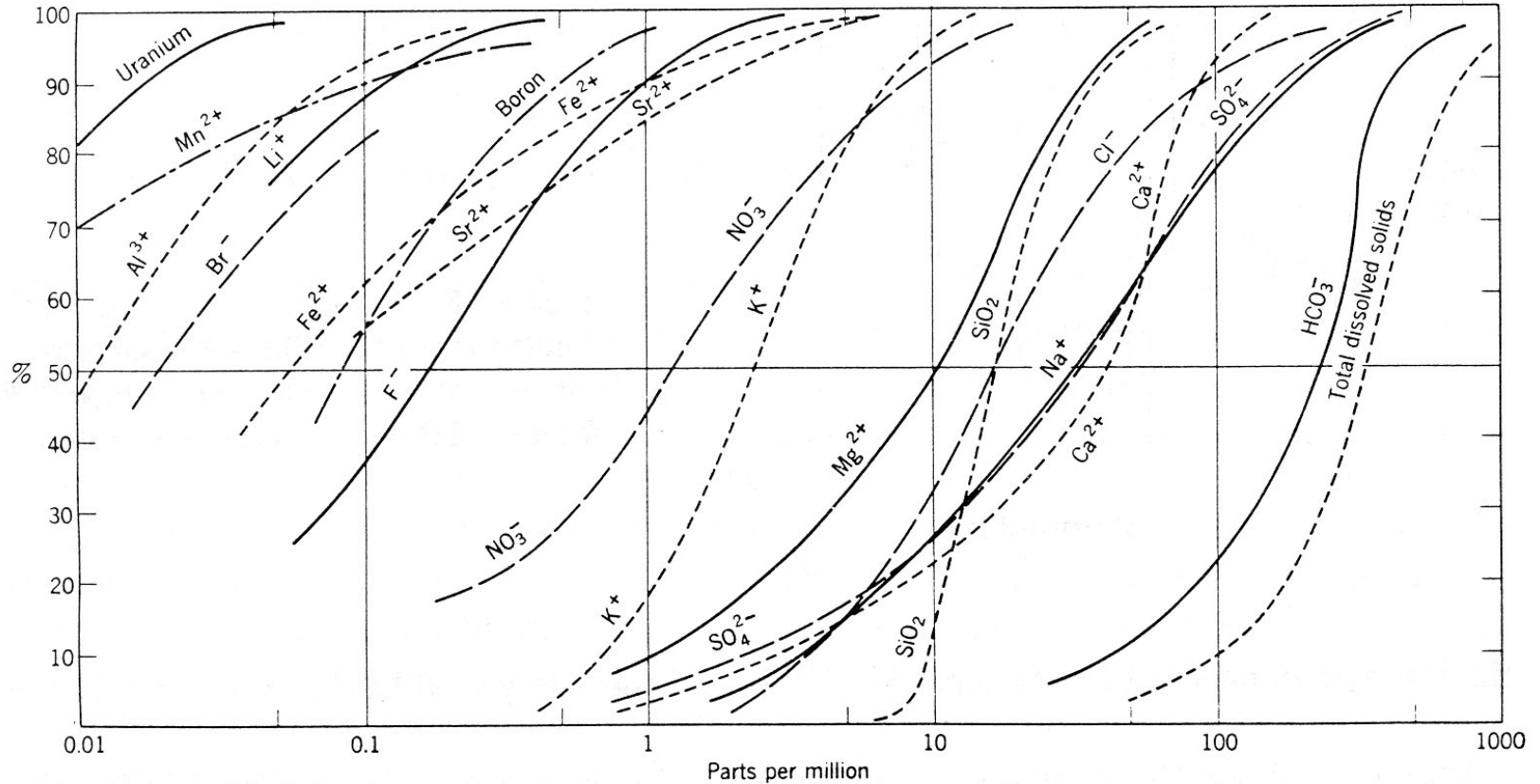
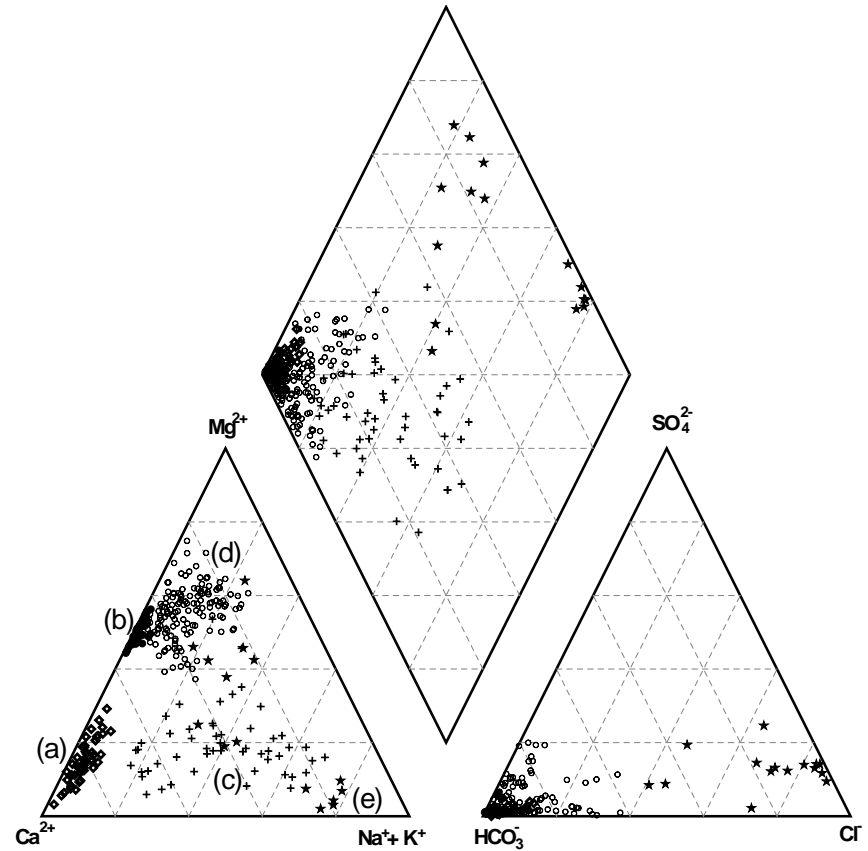
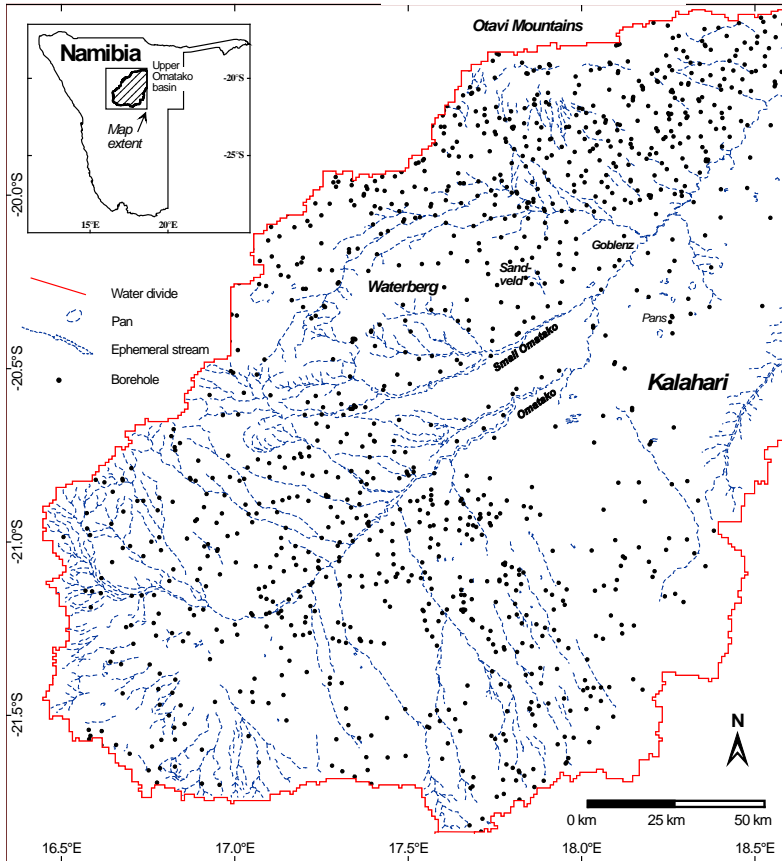


Figure 2.9. Concentrations of different solutions in terrestrial waters in the USA displayed in a frequency plot (Davies and De Wiest, 1966). Reprinted by permission of John Wiley & Sons, Inc.

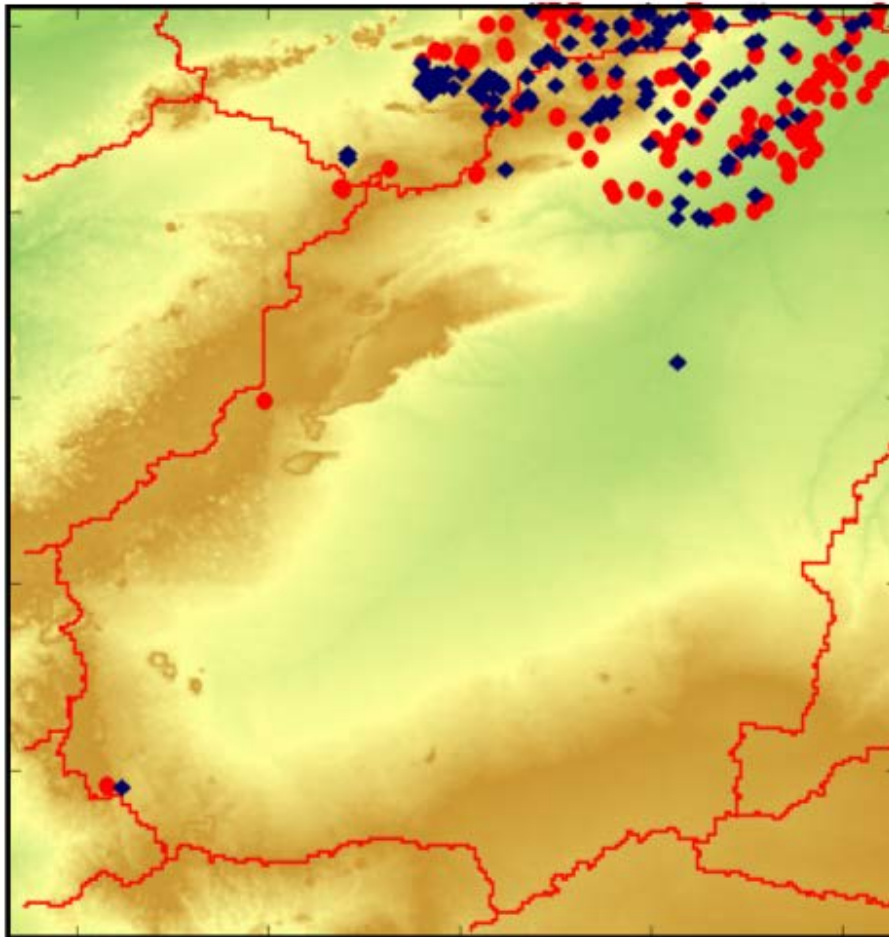
Einfluss der Geologie

Constituents in mg/L	Precipitation	GW in unconsolidated deposits	GW in Igneous Rocks	GW in Sedimentary Rocks	GW in Carbonates	Seawater	Drinking water standards
Na ⁺	0.6	47	4	20	13	10560	200
K ⁺	0.4	3	1	2	3	380	---
Ca ²⁺	0.9	54	8	53	55	400	200
Mg ²⁺	0.2	15	2	19	28	1272	125
HCO ₃ ⁻	2.0	157	40	263	255	142	500
SO ₄ ²⁻	3.0	64	1	47	48	2560	250
Cl ⁻	0.4	21	1	12	14	18980	250
NO ₃ ⁻	0.3	0.6	n/a	2.7	n/a	<1	20
SiO ₂	0.1	22	19	15	n/a	1 - 4	---
TDS	5.1	230	76	380	416	34378	500
pH	5.5	7.5	6.8	7.5	7.5	8.1-8.4	---

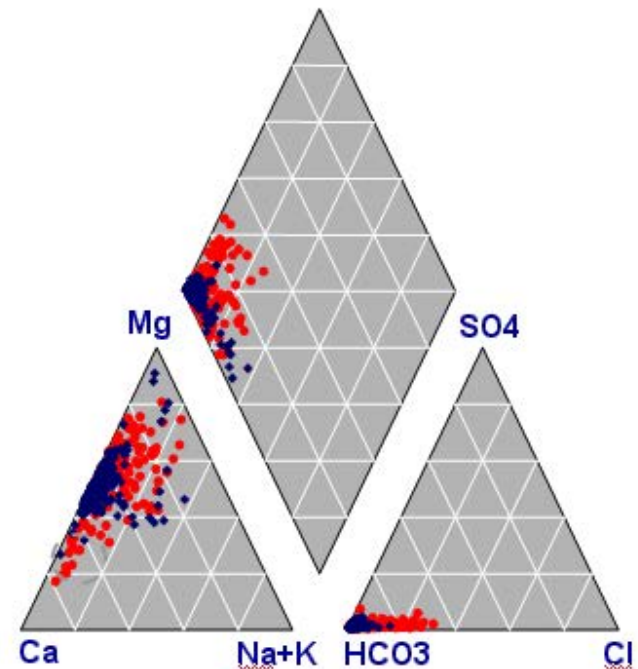
Hydrochemie kann Herkunft zeigen



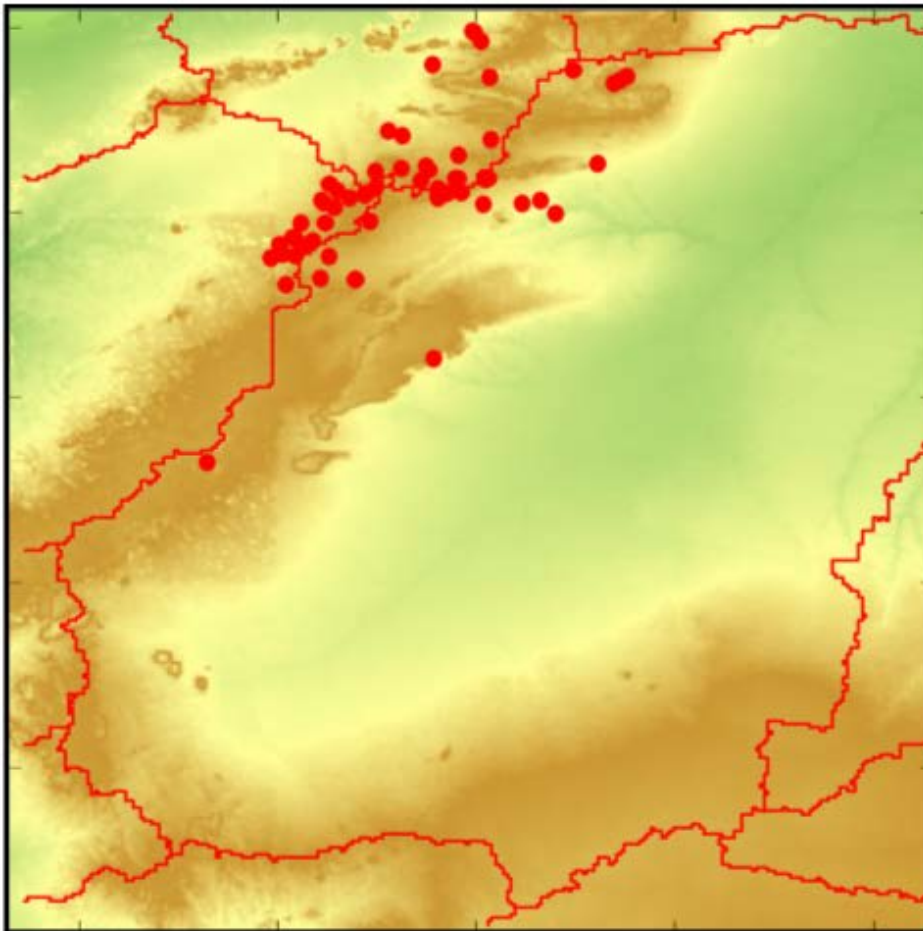
Namibia: Karst (Otavi-Dolomit)



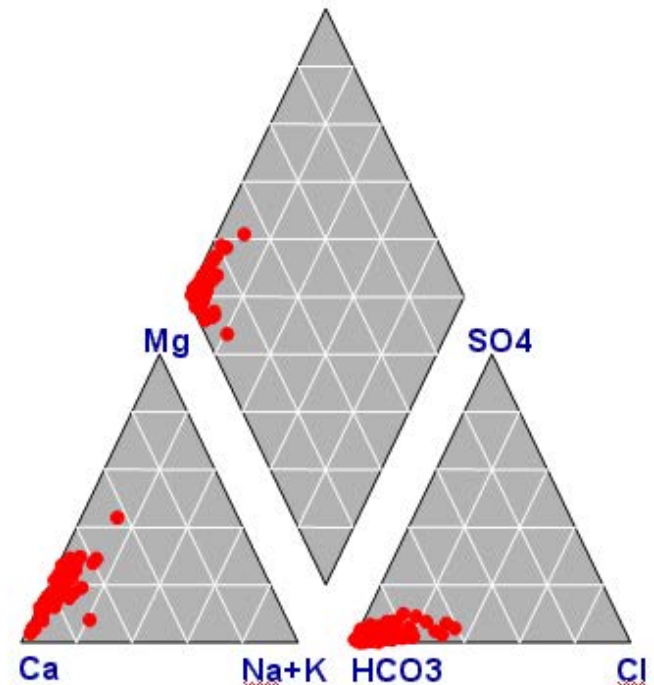
The dolomite groups



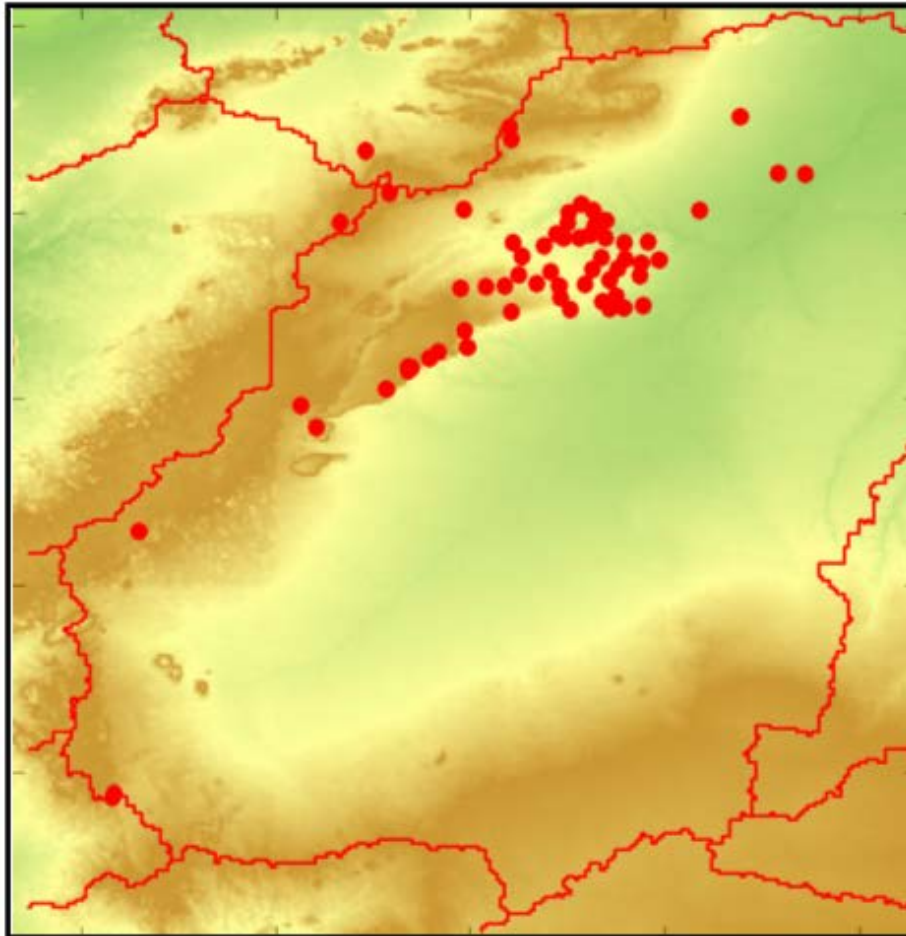
Namibia: Kalkstein (Otavi)



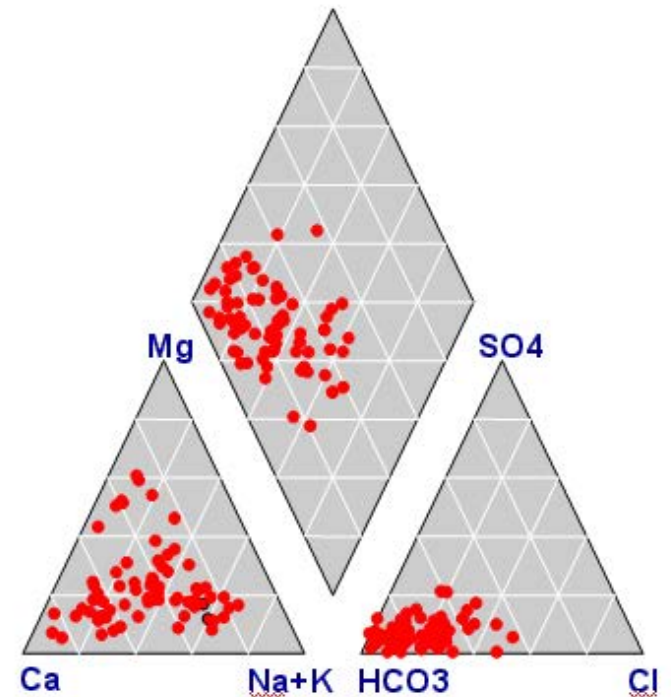
The carbonate/ marble groups



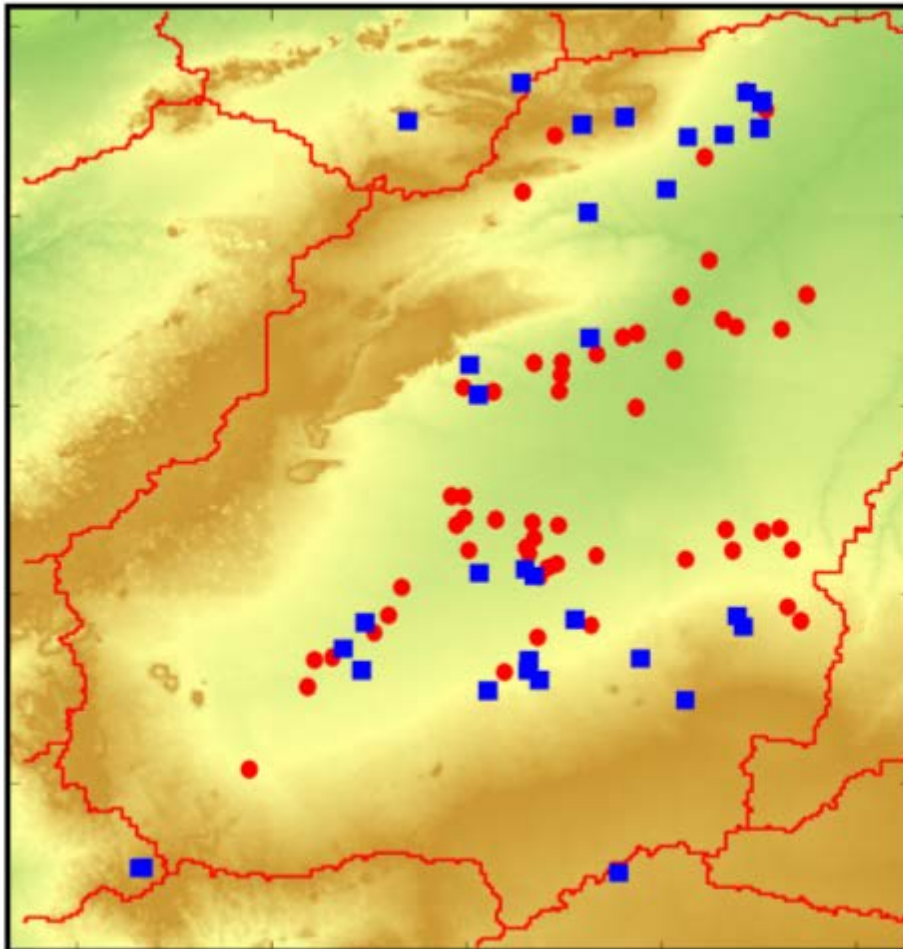
Kristallin



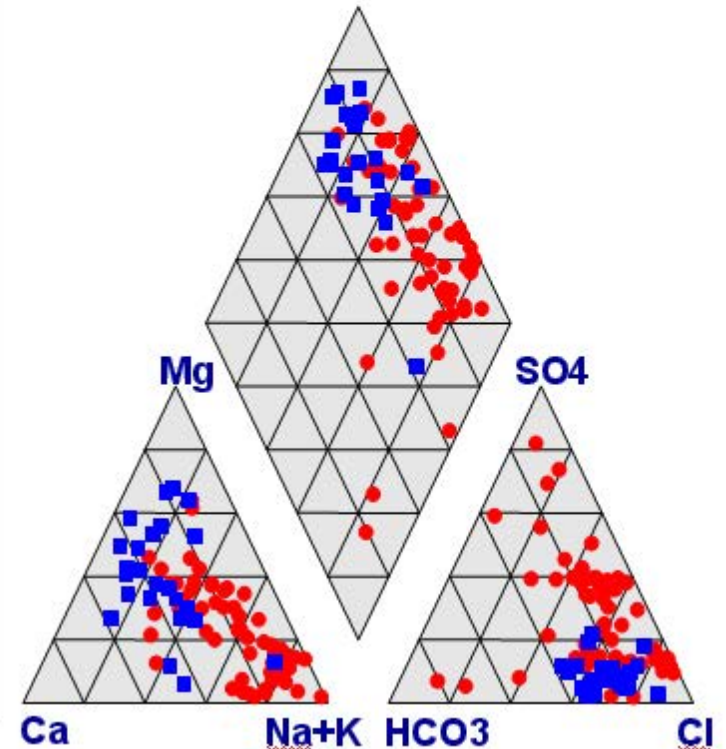
The Waterberg sandstone groups



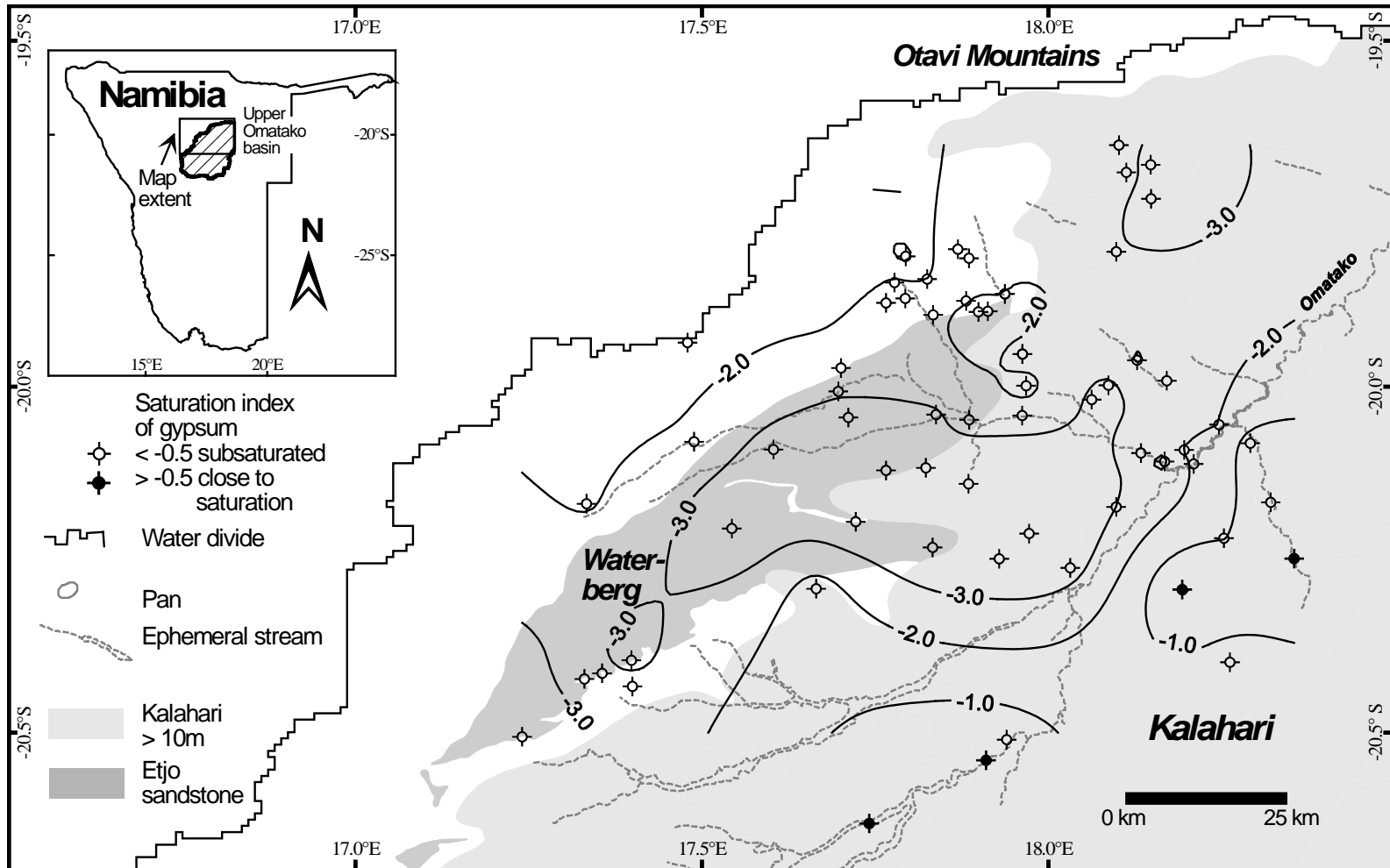
Salziges Grundwasser



Saline end members



Ursache Lösung-Fällung-Thermodynamik



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