Figure 6.1 Diagrammatic summary of MC Zone concretion genesis with depth as outlined in Section 6.3. The thickness of arrows indicate relative magnitude of fluxes of reactants. MgSO₄ is not shown but follows a pathway similar to FeSO₄. Estimates of burial depth are indications only and probably varied from site to site. Increasing burial depth equates with increasing age.

Calcrete and pyrite precipitation.

Salinization of calcrete.

Progressive growth of concretion with burial through the sulphate reduction zone.

Rate of concretion growth decreases as supplies of Ca²⁺ and Mg²⁺ diminish due to burial below the zone of effective seawater diffusion.

Concretion growth ceases.

Increasing compaction of sediments.

Erosion, submarine exposure, and phosphatization of some concretions. This only occurs in basin margin sediments.

NO EROSION

LEGEND

- Pyrite
- Organic matter
- Calcrete
- Partially denitized calcrete
- Dolomite
- Compacting sediment