

## Formation of sugar phosphates under potentially natural conditions

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The chemistry referring to the formation of building blocks of the nucleic acids under potentially natural conditions is relevant to the RNA-World hypothesis. Reactions are demonstrated that efficiently form tetrose-, pentose-, and hexose-phosphates including ribose-2,4-diphosphate at neutral pH, ambient temperature and low concentration (Pitsch *et al.*, 1995; Krishnamurthy *et al.*, 1998). The geochemical conditions for the formation of the reactants under Archaean conditions are discussed.

Some of the reactions involved depend on bilateral surface active minerals for concentration and induction; among these ferroferric hydroxide, green rust, is a likely predecessor of the sedimentary magnetite which is a major component of the widespread Archaean banded iron formations,

hosting the oldest known traces of life on Earth (Mojzsis *et al.*, 1996).

### References

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