# Organic Phosphorus Composition and Potential Bioavailability in Western US Soils. (S04-turner141422-Poster)

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## Abstract:

We used phosphorus-31 nuclear magnetic resonance and phosphatase hydrolysis to determine the structural chemistry and potential biological availability of organic phosphorus in a range of mainly calcareous western US soils. Most organic phosphorus was orthophosphate monoesters (e.g. inositol phosphates), with smaller concentrations of orthophosphate diesters (e.g. nucleic acids) and inorganic pyrophosphate. Much of the organic phosphorus extracted with bicarbonate was hydrolysed by phosphatase, suggesting its potential biological availability.

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