



# **Biological availability of phosphorus sorbed to titanium mineral processing residues and implications for their use as agricultural soil amendments**

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Global P rock production & global reserves / P pollution & waste



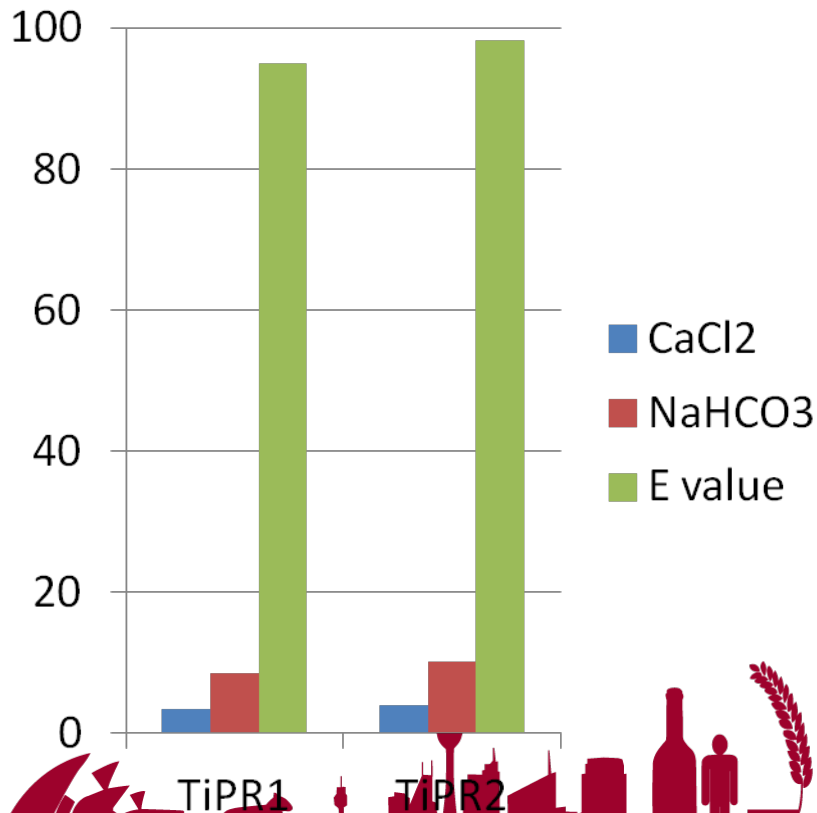
# Biological availability of phosphorus sorbed to Ti mineral processing residues

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- Ca- and Fe-rich Ti processing residues (TiPRs) have exceptionally high P sorption capacity
- CSIRO research: >97% reduction in P leaching to shallow groundwater under TiPR-amended turf farm soils ([Douglas \*et al.\* 2010](#)) **and** continued turf growth / re-growth in the absence of additional fertilization
- Is P sorbed to Ti processing residues biologically available?*

# Implications for Ti residue use as agricultural soil amendments

% Potentially bioavailable P



% Phytoavailable P (*L* value, *Zea mays*. L.)

