

# リン酸収着がベトナムの フェラルソルの分散に及ぼす影響

Effect of phosphate sorption on dispersion in a Ferralsol of Vietnam

プロジェクト教員

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キーワード： Soil colloid, Soil physics, Sorption on Soil

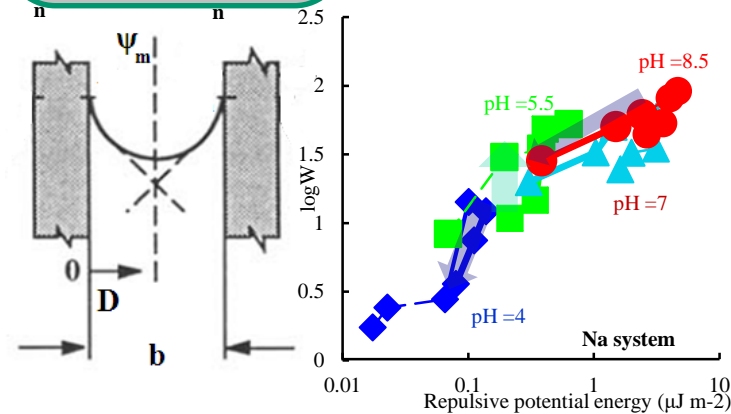
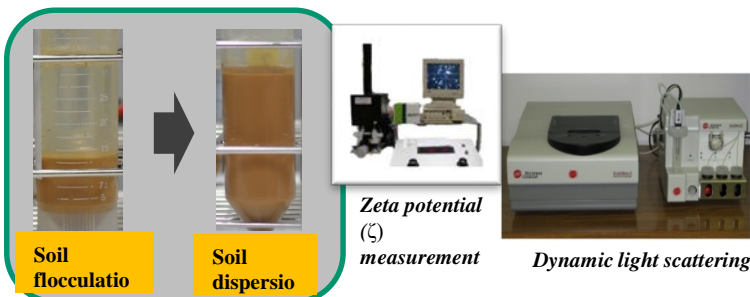
専門分野： 土壌物理

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## 研究内容

**Introduction:** Dispersion of colloidal soil is closely related to various environmental problems. Increase of soil dispersion can decrease the soil permeability and it sometimes induces erosion. In this study, the influence of P sorption on soil dispersion was investigated experimentally and evaluated by calculating repulsive potential energy based on zeta potential. Stability ratio was used to evaluate stability of colloid suspension.

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Schematic representation of the overlap of two clay particles when a pair of plates are brought to a surface separation  $D$

The stability ratio ( $W$ ) and the repulsive potential energy ( $V_r$ )

**Conclusion:** We successfully evaluated the influence of phosphate sorption on the Ferralsol dispersion by calculating repulsive potential energy based on zeta potential. Because soil dispersion sometimes induces environmental problem, it is better to avoid the dispersive condition when applying phosphate fertilizers even if the soil is initially flocculative.