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SMR/104-31

COLLEGE ON SOIL PHYSICS

19 September - 7 October 1983

SOIL STRUCTURE - FIGURES
(Supplement to SMR/104-4)

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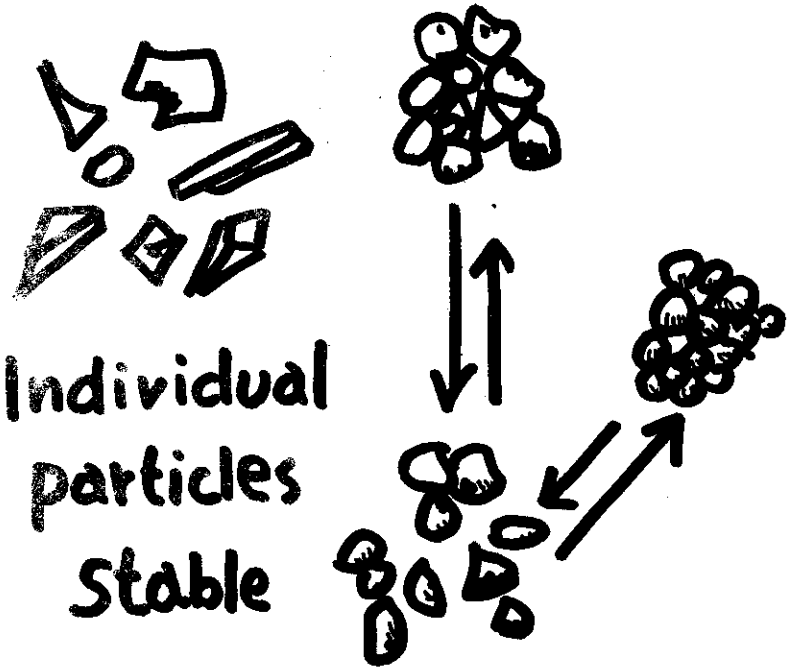
1

Ant's eggs-like

Garlic clover-like

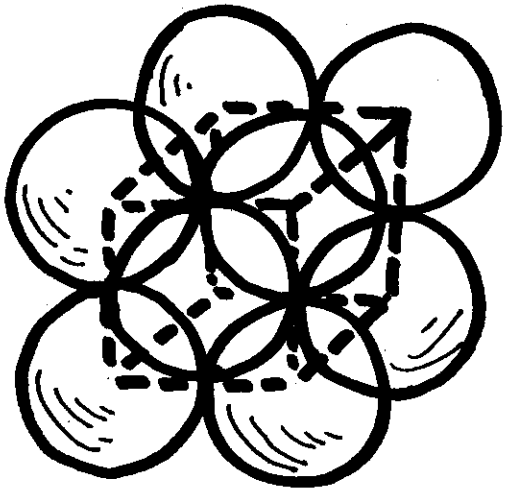
Slide 2.

2



Slide 8

Hexahedron arrangement



$$P = \frac{(2r)^3 - \frac{4}{3}\pi r^3}{(2r)^3} \times 100$$

$$= 47.64\,\%$$

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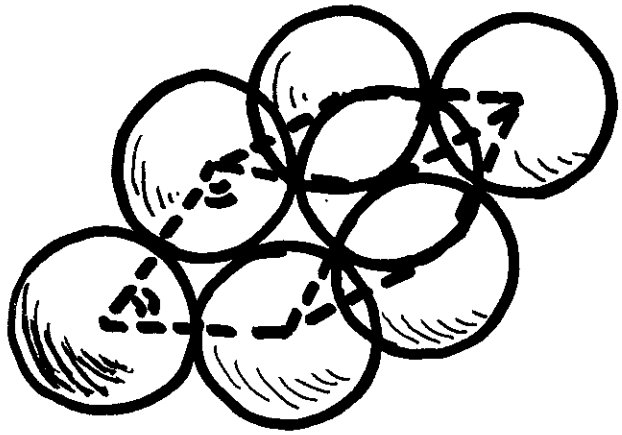
Dodecahedron arrangement



$$P = \frac{2\sqrt{3}r^2 \times \sqrt{\frac{8}{3}}r - \frac{4}{3}\pi r^3}{2\sqrt{3}r^2 \times \sqrt{\frac{8}{3}}r} \times 100$$

$$= 25.95\,\%$$

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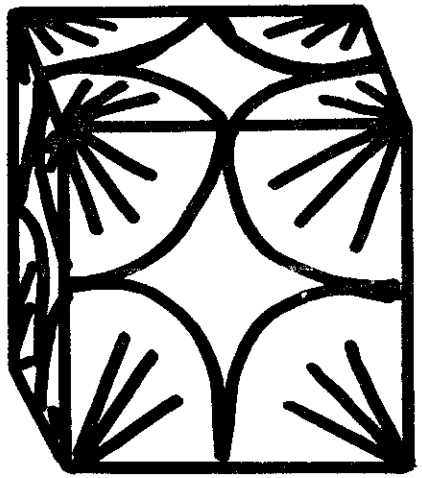
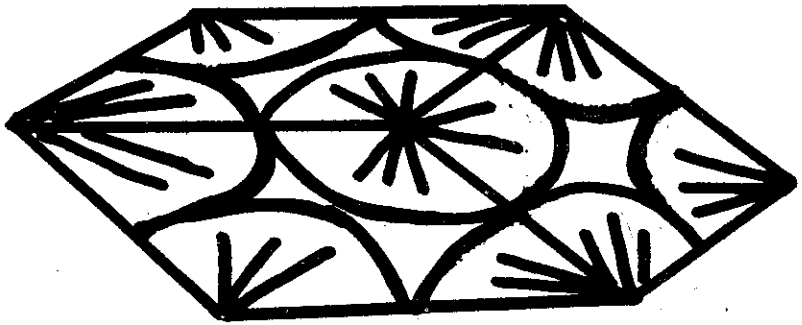


Hexahedron arrangem.



Dodecahedron arrangem.

a. Red soil-1 With good str.
c. Red soil-1 with poor str.
b. Red Soil-2 with good str.
d. Red Soil-2 with poor str.

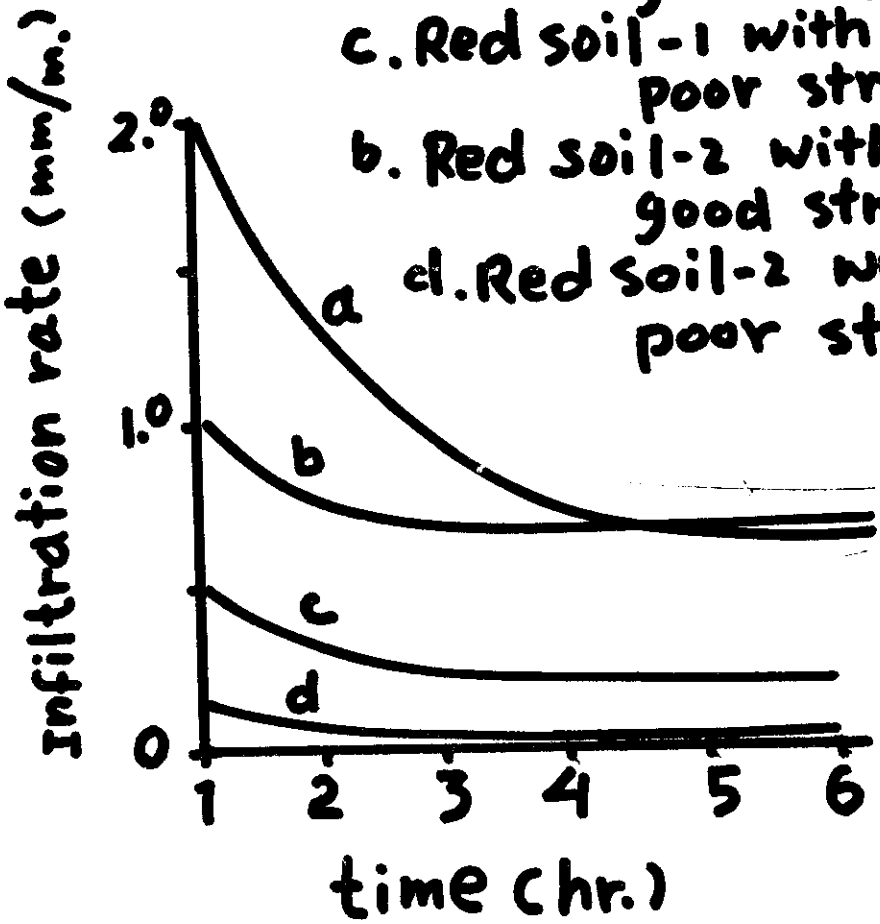


Fig. Infiltration rate of red soils with differ. Str.

Slide 14

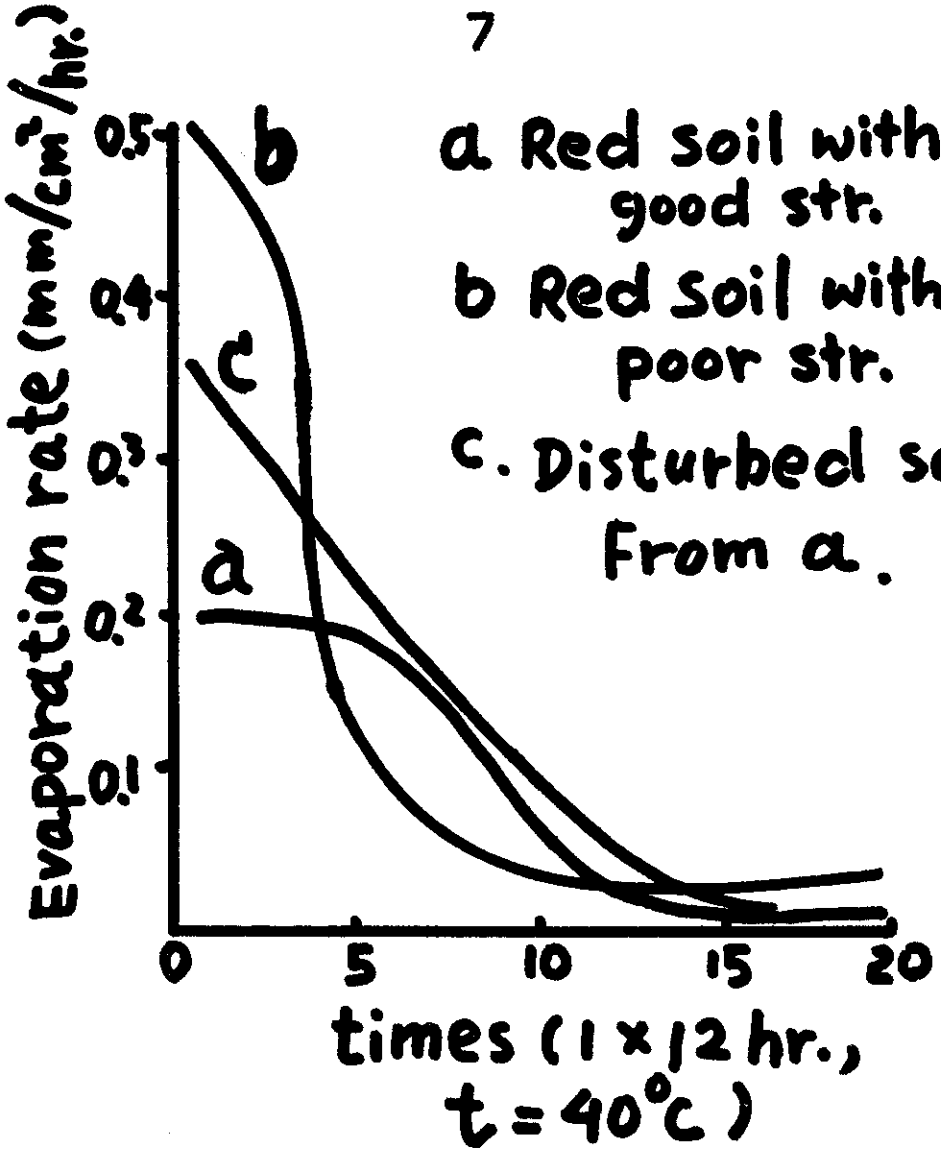


Fig. Evaporation rate of red soil with diff. soil str. Slide 15

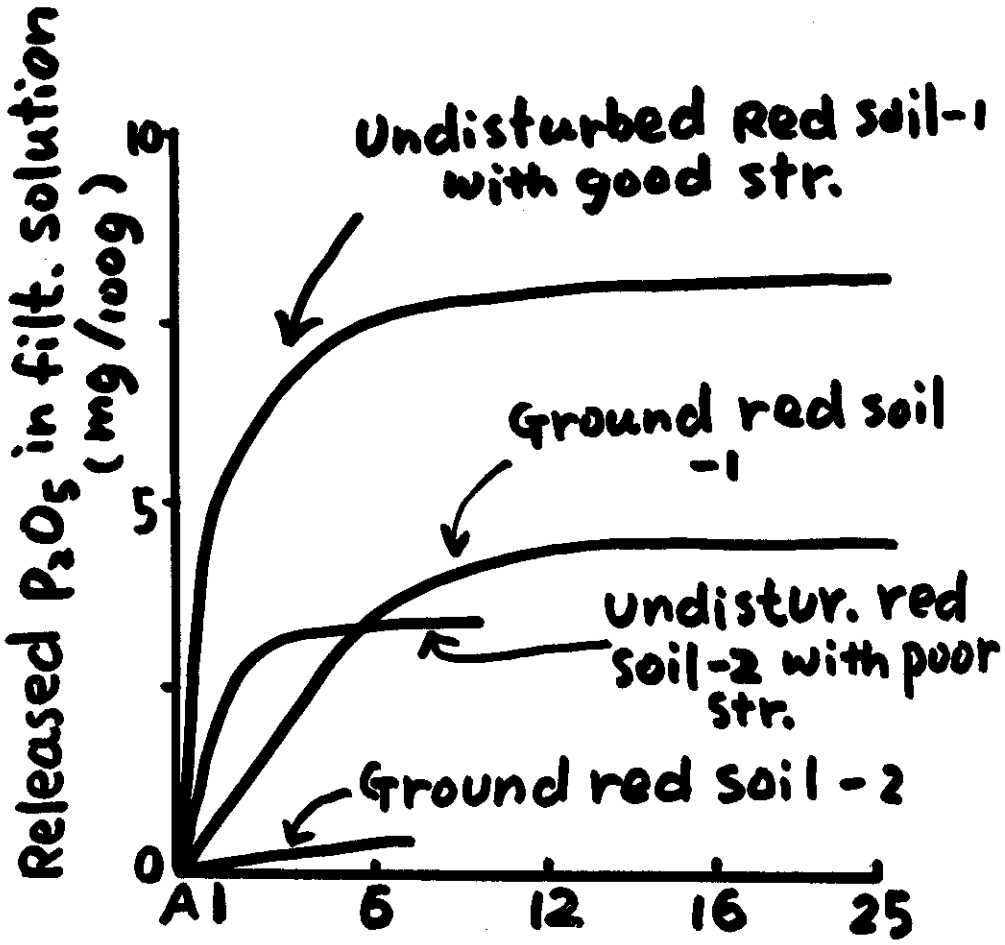


Fig. Effect of diff. str. on fixation of P_2O_5. Slide 16

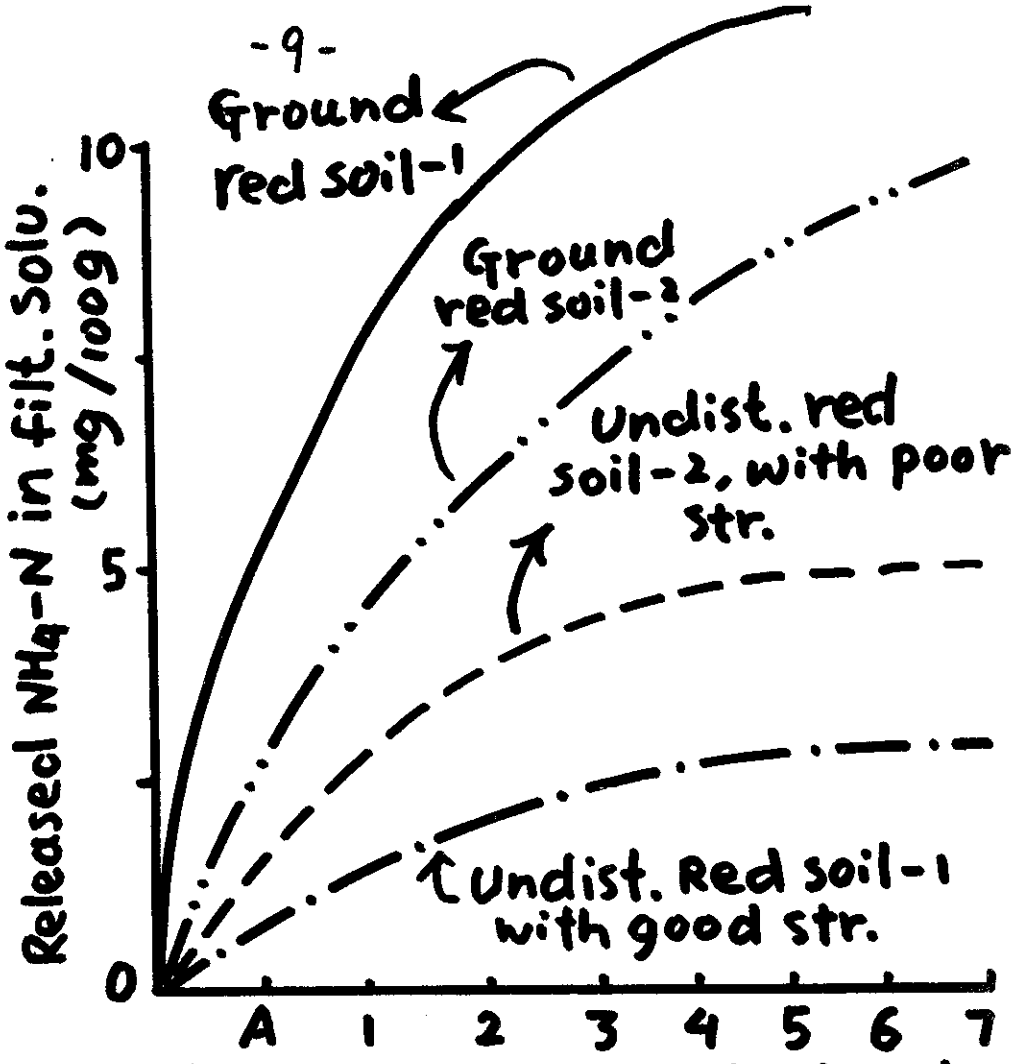


Fig. Effect of diff. str. on NH_4-N maintenance

Slide 17

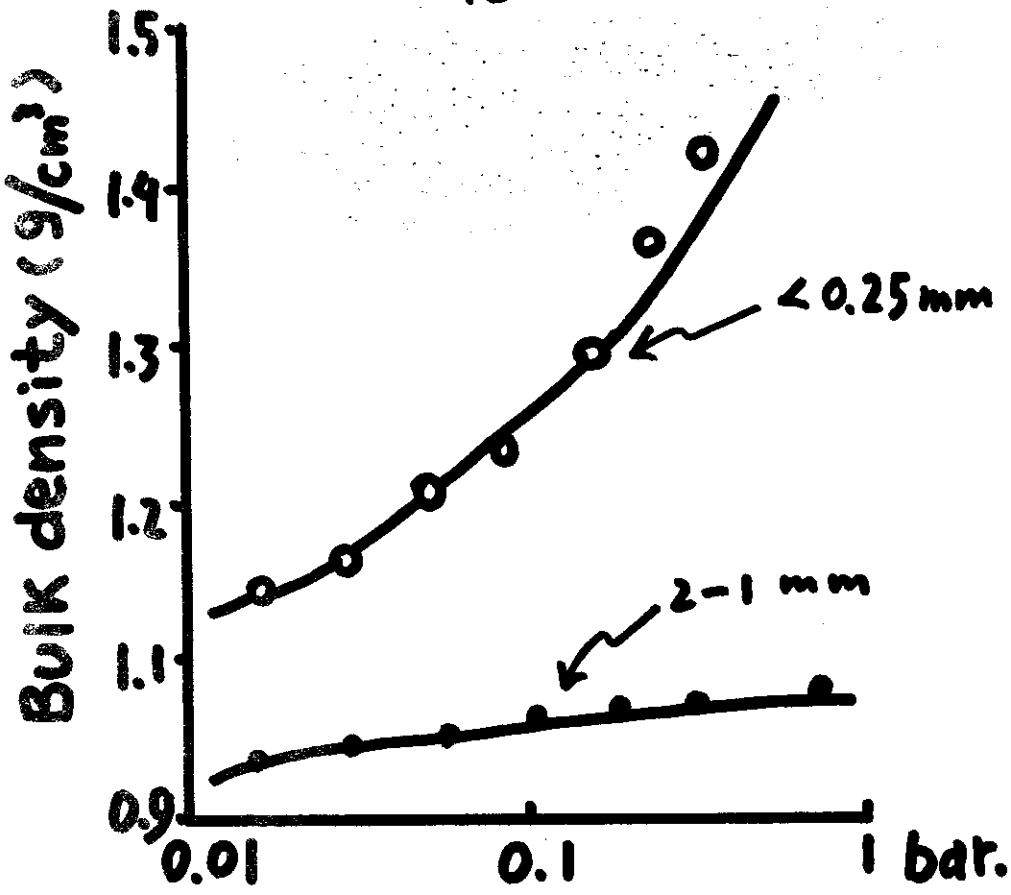


Fig. Variation in bulk density under diff. soil suction

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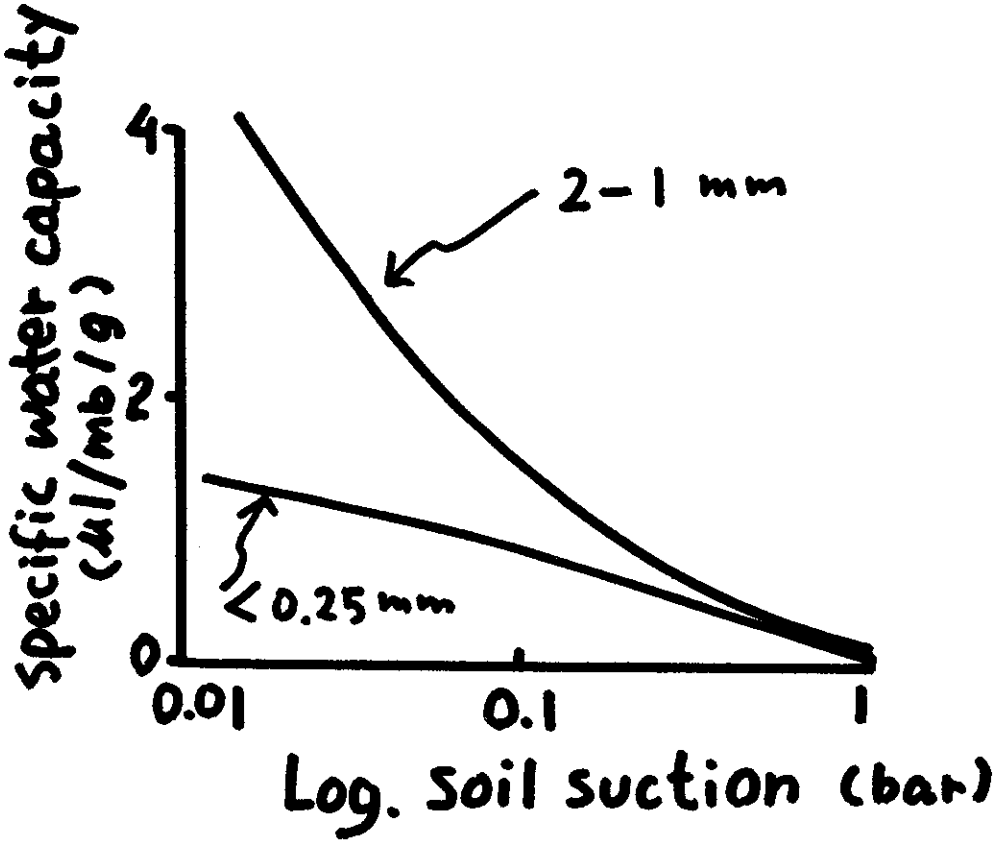

Fig. Change of specific water capacity under diff. soil suction

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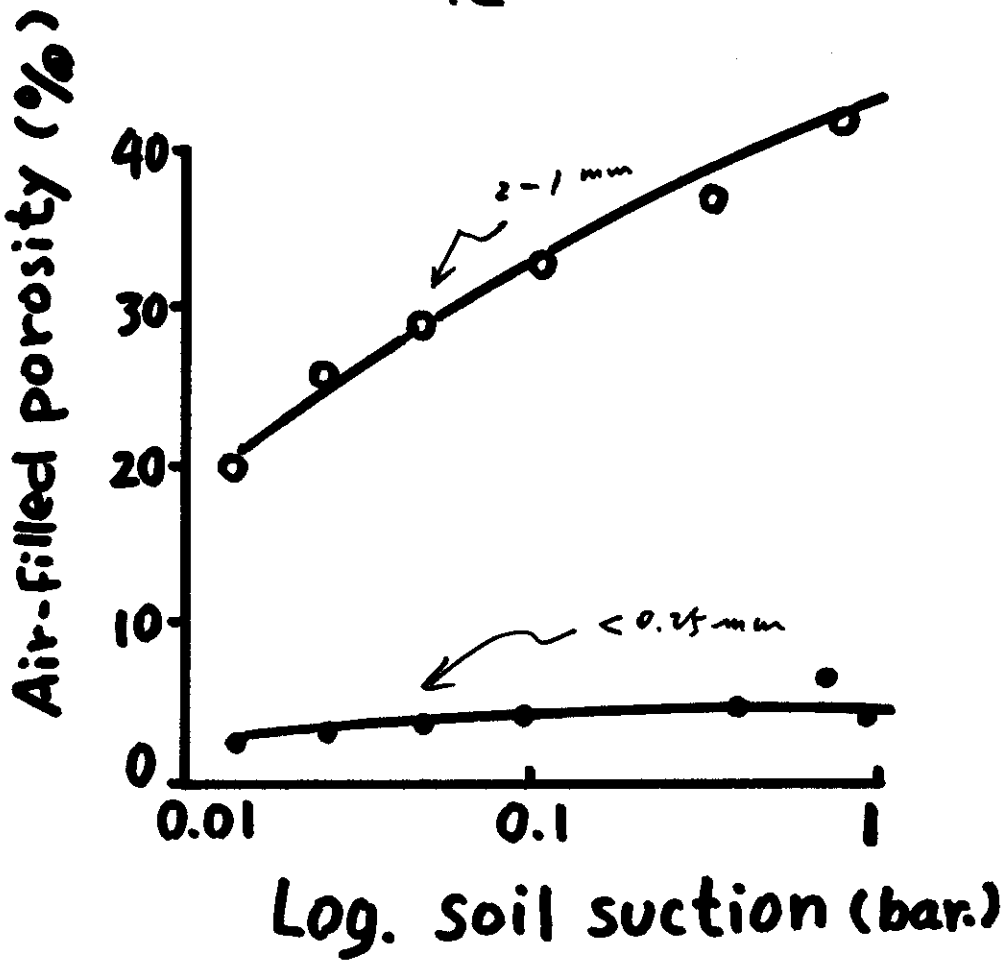

Fig. Air-filled porosity under diff. soil suction

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Concent. limits of electr. for floccul. of colloids

Electrolytes	floccu. limit (eq.)
LiCl	0.025 - 0.0125
NH_4Cl	0.025 - 0.0125
NaCl	0.015 - 0.0125
KCl	0.025 - 0.0125
RbCl	0.0125 - 0.0050
$AgNO_3$	0.005 - 0.0025
HCl	0.001 - 0.0005
$MgCl_2$	0.0012 - 0.0005
$CaCl_2$	0.0012 - 0.0005
$SrCl_2$	0.0012 - 0.0005
$FeCl_3$	< 0.000125
$AlCl_3$	< 0.000125

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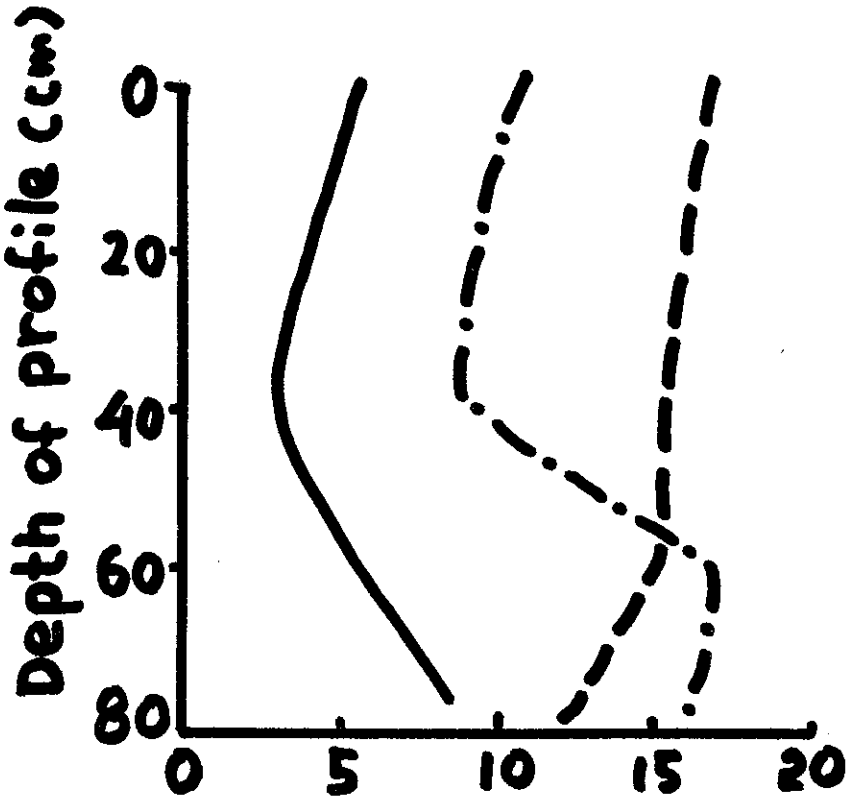

— Check ; -·- Recl. after 2 years; --- Recl. aft. 3 y.

Fig. Water content in soil

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