

Interactive comment on “Physical models for class-room teaching in hydrology” by A. Rodhe

Anonymous Referee #2

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General comments: The topic of this paper is in general relevant, suitable and definitely of interest for that part of the hydrological community that is involved in teaching activities. The paper describes physical models which can be used in class-room teaching to support hydrology lectures. The models can be used to demonstrate saturated and unsaturated groundwater flow processes, hillslope runoff generation mechanisms, and flow pathways of water using tracers. The paper is well structured and presented in an organized way, but the usefulness and quality of some figures could be improved and minor corrections should be made as pointed out in the specific comments below.

To summarize, I am recommending minor revision of the submitted paper according to the specific suggestions given below.

Specific comments and technical corrections: p. 4136, 13: Replace "fluorescent" by

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"fluorescent". p. 4137, 6: Delete "very". p. 4137, 16: Replace "results supported by" by "and results are supported by the findings of". p. 4137, 24-25: Replace "student's laboratory exercises" by "student laboratory exercises". p. 4138, 2: Replace "students' laboratory exercises" by "student laboratory exercises". p. 4138, 25: Change "water in gravel is drained" to "water in the gravel filled can is drained". p. 4139, 3: The unit is not correct here. It should be "4 x 7 x 10 cm". p. 4139, 19: Replace "cm³" by "cm". p. 4139, 19: Change "...)" with sand, ..." to "...)" filled with sand, ...". p. 4140, 10: Replace "has been found to be convenient" with "has been found appropriate". p. 4141, 22-23: The Greek letter (Φ ; Φ) should be used instead of "Ø". p. 4145, 22: The expression "rand area to the recharge area" is not very clear. Do you mean something like "boundary area between ..."? p. 4146, 6: Replace "be on the order" by "be in the order". p. 4147, 15: Replace "cm³" by "cm". p. 4149, 16: Replace "cm³" by "cm". p. 4151, 19: Delete "very". p. 4152, 1-4: Please rewrite this sentence in order to make the statement, that these physical models are beneficial for students as well as for teachers, more clear. p. 4155, caption figure 2: Change "are parts the water retention curve" to "are parts of the water retention curve". p. 4156, caption figure 3: Change "in a hillslope" to "at a hillslope". p. 4158, figure 5: The additional gained information from figure 5 is not clear. The figure could be improved e.g. by adding flow lines. p. 4159, caption figure 6: Replace "principal" by "principle"

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