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Capillary rise in crumpled-sheets of paper AYAX HERNANDO TORRES VICTORIA, MOISS SALGADO, SALOMN PERALTA, Instituto Politecnico Nacional SEPI ESIME Azcapotzalco, FRANCISO WONG, Instituto Mexicano del Petroleo, ABRAHAM MEDINA, Instituto Politecnico Nacional SEPI ESIME Azcapotzalco — In this work we report experiments on the capillary rise of water into crumpled paper, in order to understand how the controlled damage of a soft material, like paper (hand-crumpled paper sheets), improves their capabilities of liquid sorption. We have done a series of experiments where a different number of crumples (from zero up to fifty) were made on different rectangular paper pieces and we found that an increasing number of crumples enhances such a capability. Characteristic power laws for the front of elevation, h , versus the elapsed time to reach such height, t , are reported.

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