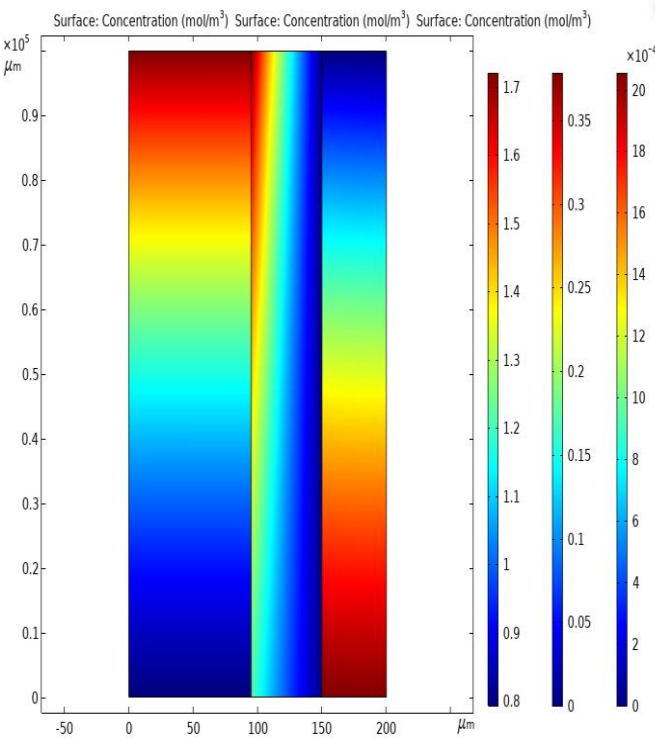


The School of Forest Resources Presents....

Presenter: Nasim Alikhani
 Advisor: Dr. Ling Li

CFD simulation of the water vapor separation of a moisture-selective hollow-fiber membrane for the application in wood drying processes

In this study, a two-dimensional axisymmetric model was established, using a finite element-based model via COMSOL Multiphysics software, to simulate the water vapor separation in a moisture-selective hollow-fiber membrane for the application of air dehydration in wood drying processes. In the developed CFD model, mass and momentum transfer equations were simultaneously solved to compute the water vapor concentration profile in the hollow-fiber membrane made of dense Polydimethylsiloxane (PDMS) material. The simulated results by the model were consistent well with the experimental data. Then the verified model was used to analyze the mass transfer coefficient and Sherwood number.



**Feb. 22, 2021
 10:00AM-10:50AM**

Zoom Invite:

<https://maine.zoom.us/j/88931754390?pwd=ajhwQ3piUnd5NE9TYVBYNHB5dGUxdz09>

Password: 446475

All are welcome!

If you are a person with a disability and need an accommodation School of Forest Resources, as early as possible at 581-2841



to participate in this program, please call Cindy Paschal, or cpaschal@maine.edu to discuss your needs.