

IOP Conference Series: Materials Science and Engineering 2016 vol.158 N1

Flow past a porous cylinder in a rectangular periodic cell: Brinkman and Darcy models comparison

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Abstract

© Published under licence by IOP Publishing Ltd. The problem of the gas suspension flow around a porous cylinder in a periodic rectangular cell within the models of the Stokes - Darcy and the Navier-Stokes - Brinkman using the boundary element and finite volumes method was solved. Streamlines of the carrier phase flow and the air and inertia-less particles capture coefficients of at varying porosities of cylinder medium and periodic cylinder packing were compared.

<http://dx.doi.org/10.1088/1757-899X/158/1/012065>
