Discrepancy in Cake Characteristic Measurement: Compression-Permeability Cell

ROME MING WU¹, DUU JONG LEE¹,², CHI HWA WANG¹,², JING ZHAO²
AND REGINALD BENG HEE TAN²
¹Department of Chemical Engineering,
National Taiwan University, Taipei 10617, Taiwan
²Department of Chemical and Environmental Engineering,
National University of Singapore, Singapore 117576

Keywords: Compression-Permeability Cell, Porosity, Specific Resistance, Compactibility

This paper reviews the results of two sets of compression-permeability cell (C-P cell) experiments, with cationic polyelectrolyte flocculated kaolin slurry as the common testing material. The two cells have different geometry and sidewalls construction materials. The sidewall friction could affect the percentage axial stress drop and the measured porosity across the cake, and also the specific resistance to filtration of the cake.