Slip Effects on the Magnetohydrodynamic Peristaltic Flow of a Maxwell Fluid

Tasawar Hayat[a,b], Sadia Hina[a], and Awatif A. Hendi[c]

[a] Department of Mathematics, Quaid-I-Azam University 45320, Islamabad 44000, Pakistan
[b] Department of Mathematics, College of Science, King Saud University, P. O. Box 2455, Riyadh 11451, Saudi Arabia
[c] Department of Physics, Faculty of Science, P.O. Box 1846, Riyadh 11321, Saudi Arabia

Reprint requests to T. H.; E-mail: pensy_t@yahoo.com

The influence of slip on the magnetohydrodynamic (MHD) peristaltic flow in a planar channel with compliant walls is examined. An incompressible Maxwell fluid saturates the porous medium. An established solution is valid for small wave number. The mathematical expression of the stream function is presented. Several interesting flow parameters are sketched and examined.