BULK VISCOSITY DAMPING OF MAGNETOSONIC WAVES PROPAGATING IN A PHOTOIONIZED PLASMA

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As it was shown in a previous paper (Phys. Plasmas 2004) for certain kind of plasmas the coefficient of second (bulk) viscosity can be orders of magnitude larger than the coefficient of the dynamical viscosity and the thermometric conductivity. At the present paper the damping effects of the second viscosity on the hydromagnetic waves propagating in optically thin plasmas of arbitrary metallicity Z is analyzed. The plasma is assumed to be embedded in a constant magnetic field $\mathbf{H}$ and ionized by photons with mean energy E.