1167-35-34 M. Ignatova* (ignatova@temple.edu). On the Nernst-Planck-Navier-Stokes Equations. I will present recent results on the Nernst-Planck-Navier-Stokes Equations. These equations describe the diffusion and transport of ions in fluids. The results concern global regularity, long time behavior of solutions and asymptotic behavior as key parameters (Debye length, viscosity) are varied. (Received February 04, 2021)