1046-35-1186   **Konstantina Trivisa*** (`trivisa@math.umd.edu`), Department of Mathematics, University of Maryland, College Park, MD 20742. *On the dynamics of multicomponent reactive flows.*

Multicomponent reactive flows arise in many physical applications in sciences and engineering such as combustion, atmospheric modeling, astrophysics, chemical reactions, mathematical biology. The objective of this work is to develop a rigorous mathematical theory based on the principles of continuum mechanics. Issues of existence, asymptotic analysis, stability and compressible-incompressible limits are addressed. (Received September 15, 2008)