

Vol. 13, No. 1, 2004

Deformation of Porous Materials during Combustion Processes

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The process of compaction of a chemically reacting powder material in the cylindrical press-form was modeled to study the dynamics of material deformation by means of mathematical modeling for two (“slow” and “fast”) combustion modes. It was shown that in the general case, the deformation spot is not necessarily located in the combustion zone and may be found in any point relative to the combustion front. Moreover, the process of deformation can continue even after the end of combustion.