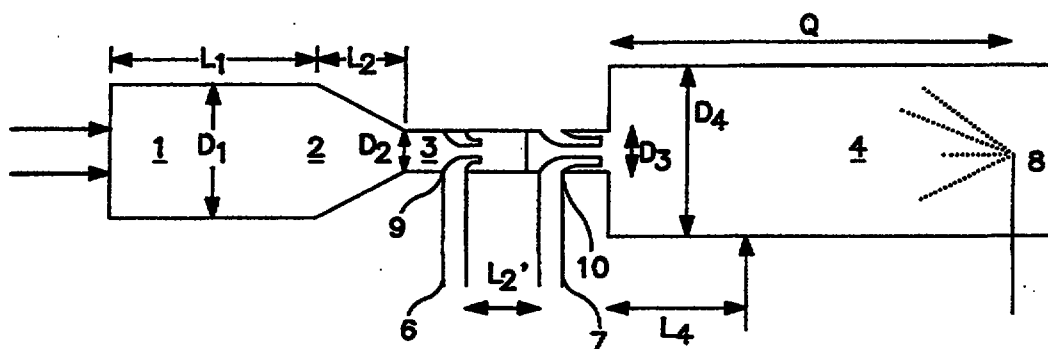


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(54) Title: MULTI-PHASE AGGREGATE COMPRISING CARBON AND ITS PREPARATION



(57) Abstract

A method of making an aggregate comprising at least a carbon phase and a silicon-containing species phase is disclosed. The method involves introducing a first feedstock into a first stage (9) of a multi-stage reactor, and introducing a second feedstock into the reactor at a location (10) downstream of the first stage. The first and second feedstock comprise a carbon black-yielding feedstock, and at least one feedstock also comprises a silicon-containing compound. The reactor is operated at a sufficient temperature to decompose the silicon-containing compound and to pyrolyze the carbon black-yielding feedstock. An additional method is disclosed which involves making an aggregate comprising a carbon phase and a silicon-containing species phase using multi-stage reactor having at least three stages for introducing a feedstock, wherein at least one of the feedstocks comprises a carbon black-yielding feedstock and wherein at least one of the feedstocks comprises a silicon-containing compound. Besides producing the aggregate comprising a carbon phase and a silicon-containing species phase, silica and/or carbon black may also result from the processes of the present invention. A further method is disclosed which involves making an aggregate comprising a carbon phase and a metal-containing species phase using a multi-stage reactor having at least two stages for introducing feedstocks, wherein at least one of the feedstocks comprises a carbon black-yielding feedstock and where at least one of the feedstocks comprises a metal-containing compound. The aggregates of the present invention when incorporated into elastomeric compositions preferably lead to improved wet skid resistance and rolling resistance properties.