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(54) **RUBBER COMPOSITION WITH BI-FUNCTIONALIZED MESOPOROUS SILICA PARTICLES AS REINFORCEMENT MATERIAL**

(57) The present disclosure relates to a rubber composition comprising at least rubber and reinforcement material, wherein the reinforcement material comprises mesoporous silica particles, wherein said mesoporous silica particles comprise an external surface with pores and an internal core comprising channels extending to said pores, the external surface being functionalized with a first type of functional group and the channels having a surface functionalized with a second type of functional group, the first type of functional group being different from the second type of functional group.

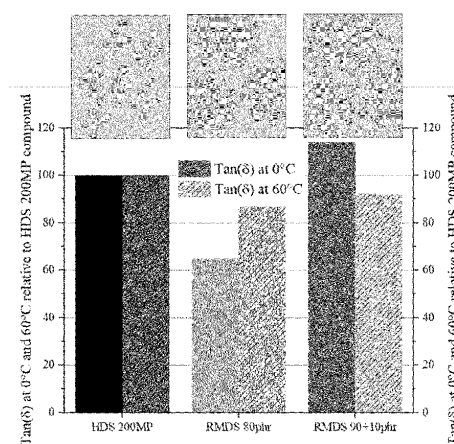


Fig. 41

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