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(54) Title: ANTI-AGEING ADDITIVES FOR BITUMEN

Fig.4A

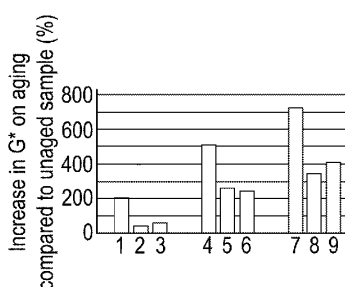


Fig.4B

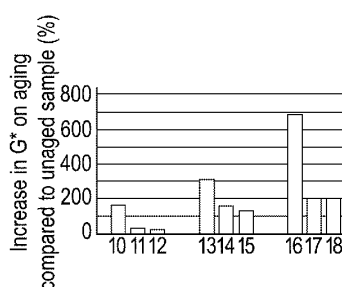
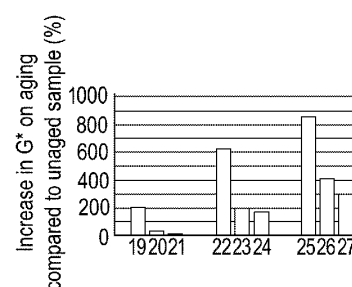


Fig.4C



(57) Abstract: The invention relates to an additive composition comprising primary anti-oxidants and a secondary anti-oxidant, wherein the primary anti-oxidants are a phenyl phosphite and 3,3'-thiodipropionic acid dioctadecylester, and wherein the secondary anti-oxidant is epoxidized soybean oil. The invention additionally relates a bituminous composition comprising primary anti-oxidants and a secondary anti-oxidant, wherein the primary anti-oxidants are a phenyl phosphite and 3,3'-thiodipropionic acid dioctadecylester; and wherein the secondary anti-oxidant is epoxidized soybean oil. The invention also relates to an asphalt composition comprising the bituminous composition with resistance to short-term and long-term chemical ageing. The invention further relates to the use of an additive composition to reduce short-term and long-term chemical ageing of a bituminous composition.

[Continued on next page]

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