

Title (en)
USE OF LAMELLAR CRYSTALLITES AS EXTREME PRESSURE ADDITIVES IN AQUEOUS LUBRICANTS, LAMELLAR CRYSTALLITES AND METHOD FOR OBTAINING SAME

Title (de)
VERWENDUNG VON LAMELLARKRISTALLEN ALS HOHDRUCK-ADDITIVE IN WÄSSRIGEM SCHMIERMITTEL, HOHDRUCK-ADDITIVE UND IHRE HERSTELLUNG

Title (fr)
UTILISATION DE CRISTALLITES LAMELLAIRES EN TANT QU'ADDITIFS EXTREME-PRESSION DANS DES LUBRIFIANTS AQUEUX, CRISTALLITES LAMELLAIRES ET LEUR OBTENTION

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Application
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Abstract (en)
[origin: US6806238B1] The invention concerns the use as extreme pressure additive in aqueous lubricants used for deforming or transforming metals, lamellar crystallites having a length (L) ranging between 0.1 and 100 µm, a width (l) ranging between 0.5 and 30 µm and a thickness (e) ranging between 5 and 200 nm, comprising a stack of organic phases (O) and of aqueous solutions (A) in the sequence O/[A/O]_n, n being an integer different from 0 and such that the stack has a thickness between 5 and 200 nm, the organic phases comprising: i) at least an acid selected among: carboxylic acid, saturated or unsaturated, comprising at least 5 carbon atoms, acid phosphate esters of formula (RO)_x-P(=O)(OH)_{x'} wherein R is a hydrocarbon radical, optionally polyalkoxylated, x and x' being equal to 1 or 2, provided that the sum of x and x' is equal to 3, said acid being optionally neutralized by an organic or mineral base; and at least a metal in the form of a multivalent ion; or (ii) at least a polyalkylene block polymer having a cloud point preferably ranging between 30 and 90 ° C. The invention also concerns said lamellar crystallites and a method for obtaining them.

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