

Publication

EP 0522997 A3 19940112

Application

EP 92810274 A 19920414

Priority

CH 117291 A 19910418

Abstract (en)

[origin: EP0522997A2] The method relates to the mathematical relationship between the string and the associated striking hammer, taking into account the "groups of strings" with 1, 2 or 3 strings per key and ensures uniform playability of the entire instrument and the same striking gives the same loudness and sound volume. The calculation for strings and hammers is based on analysis of commercially available instruments, the irregularities of which, in particular during transitions between groups of strings, have been recognised with the mathematical analysis methods applied and opened the way to relationships between string and hammer, which are described in the invention. The hammerweights are in most cases better balanced than the tractive force of the strings. The invention relates only to the overall excitation system for production of the sounds but does not go into the resonance system dependent thereon.

IPC 1-7

G10C 3/18; G10D 3/10; G10C 3/08

IPC 8 full level

G10C 3/18 (2006.01); **G10D 3/10** (2006.01)

CPC (source: EP)

G10C 3/18 (2013.01); **G10D 3/10** (2013.01)

Citation (search report)

- [AD] EP 0221027 A2 19870506 - HAFERKORN FRIEDRICH PAUL
- [X] N.H.FLETCHER & T.D.ROSSING 'The Physics of Musical Instruments' 1991 , SPRINGER-VERLAG , NEW YORK chapter 2.9 Struck String
- [A] chapter 12.4 String Excitation by the Hammer
- [A] ICASSP 86 proceedings vol.2 page 1285-1288 Tokyo JP april 1986 H. Suzuki: Model analysis of a hammer string interaction

Designated contracting state (EPC)

AT BE CH DE DK ES FR GB GR IT LI NL SE

DOCDB simple family (publication)

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