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MANDON, Julien [FR/FR]; 71 rue de la Mutualité,
F-92160 Antony (FR).

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(74) Agent: **NOVAGRAAF TECHNOLOGIES**; 122 Rue
Edouard Vaillant, F-92593 Levallois-Perret Cedex (FR).

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(71) Applicants (for all designated States except US): **CEN-
TRE NATIONAL DE LA RECHERCHE SCIENTIFIQUE - CNRS** [FR/FR]; 3 rue Michel-Ange,
F-75794 Paris Cedex 16 (FR). **UNIVERSITE PARIS-
SUD 11** [FR/FR]; Batiment 300, F-91405 Orsay Cedex
(FR).

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(72) Inventors; and

(75) Inventors/Applicants (for US only): **PICQUÉ, Nathalie**
[FR/FR]; 11 Residence des Quinconces, F-91 190 Gif-sur-
Yvette (FR). **GUELACHVILI, Guy** [FR/FR]; La
Fontaine Pesée, 9 route de Saclay, F-91 150 Etampes (FR).

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(54) Title: **FOURIER TRANSFORM SPECTROMETER WITH A FREQUENCY COMB LIGHT SOURCE**

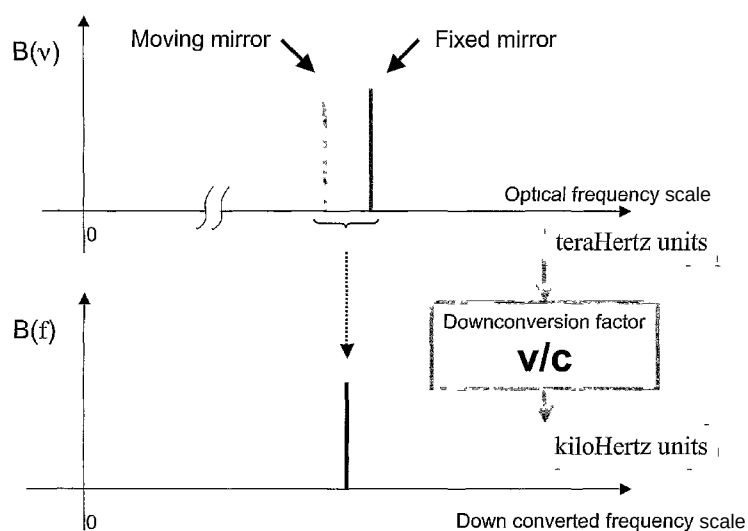


FIG. 1

(57) Abstract: The invention relates to a Fourier transform spectrometer (1) comprising: a coherent light source (2); an interferometer (4) adapted to separate the coherent light source into two or more parts in order to generate through frequency- or phase-induced effects, interferences between the two or more parts; detection means (5) adapted to detect the interferences, wherein the coherent light source comprises a frequency comb generator (2) having a frequency repetition rate, and the detection means are adapted to detect the beating of pairs of frequencies of the frequency comb separated by the frequency repetition rate or a multiple of the frequency repetition rate.

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