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**D E C I S I O N**  
**of 28 February 2005**

**Case Number:** T 0291/04 - 3.2.2

**Application Number:** 96307427.3

**Publication Number:** 0835636

**IPC:** A61B 10/00

**Language of the proceedings:** EN

**Title of invention:**

Instrument for measuring saliva viscoelasticity to determine female fertile period

**Applicant:**

Kosasky, Harold J.

**Opponent:**

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**Headword:**

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**Relevant legal provisions:**

EPC Art. 123(2), 84, 56

**Keyword:**

"Extended subject-matter (no, after amendments)"

"Clarity, inventive step (yes)"

**Decisions cited:**

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**Catchword:**

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Case Number: T 0291/04 - 3.2.2

**D E C I S I O N**  
of the Technical Board of Appeal 3.2.2  
of 28 February 2005

**Appellant:** Kosasky, Harold J.  
The Chestnut Hill Medical Center  
25 Boylston Street  
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**Representative:** Allsop, John Rowland  
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**Decision under appeal:** Decision of the Examining Division of the  
European Patent Office posted 29 September 2003  
refusing European application No. 96307427.3  
pursuant to Article 97(1) EPC.

**Composition of the Board:**

**Chairman:** T. K. H. Kriner  
**Members:** D. Valle  
U. J. Tronser

## Summary of Facts and Submissions

I. The appellant (applicant) lodged an appeal on 18 November 2003 against the decision of the examining division posted on 29 September 2003 on the refusal of the European patent application No. 96 307 427.3. The fee for the appeal was paid on 20 November 2003, and the statement setting out the grounds of appeal was received on 9 February 2004.

II. The examining division held that the application did not meet the requirements of Articles 123(2) EPC, 84 EPC, and 56 EPC having regard to the document:

D1 = US-A-4 779 627 (cited in the application).

III. Following a communication of the board, the appellant requested with letter of 2 February 2005 that a patent be granted on the basis of the following:

Claims:

1 to 7 filed with letter of 2 February 2005,

Description:

pages 1, 2, 8 to 22, 24 to 26 as originally filed,  
pages 3, 6 filed with letter of 12 March 2002,  
pages 4, 5 filed with letter of 2 February 2005,  
pages 7, 23 filed with letter of 15 November 2004,

Drawings:

Figures 1 to 28 as originally filed.

IV. Claim 1 reads as follows:

"A component for an instrument for determining the female fertile period by measuring the viscoelasticity of saliva, said component comprising a stratum composed of a rigid material, a surface (350) of said stratum having a random distribution of peaks (352) and valleys (354) characterised in that the average depth of said valleys (354) as measured from the plane defined by the top of the peaks (352) is in the range of 10 picometers to 100 micrometers and the total area of the walls of said valleys (354) below one half of said average depth being from 35% to 65% of the total area of said stratum surface (350)."

V. In support of his request, the appellant relied essentially on the following submissions:

The newly filed claim 1 was drafted so that the objection of extended subject-matter raised in the decision under appeal was overcome.

The claim was also clear, since it was obvious in the context of the description that the plane defined by the tops of the peaks meant the plane defined by the top of the highest peaks, and that the valleys were those valleys which had the highest peaks and defined by valley sides or walls which defined maximum valley depths.

The subject-matter of claim 1 implied also an inventive step, since no document of the available prior art suggested the range of values for the average depth of the valleys and the distribution of the total area of

the walls as claimed in the characterizing portion of the present claim 1.

### **Reasons for the Decision**

1. The appeal is admissible.

2. *Amendments*

The features of the present claim 1 are disclosed in the originally filed claim 16 in conjunction with Figure 28 and the corresponding description, and on page 20, lines 14 to 32 of the original description.

The dependent claims 2 to 7 correspond to the original claims 18 to 23. The description has been adapted to the newly filed claims.

Therefore the present documents meet the requirements of Article 123(2) EPC.

3. *Clarity*

The board does not agree to the findings of the examining division according to which the average depth of the valleys was not clearly defined, since neither the definition of the valleys was clear, nor the definition of the plane used for the measurement of the depth of the valleys. In the light of Figure 28 and its description it is obvious for the skilled person that the term "valleys" (354) defines the deepest valleys in the surface and not the subvalleys at the slope of these valleys. Furthermore it is also obvious that the

term "plane defined by the top of the peaks" defines that plane which is defined by the highest peaks. These definitions of the valleys and the plane are in line with the definition of the valleys and the base profile which were normally used for the determination of the peak-to-valley height (or roughness) of a surface (see for example DIN 4760).

Therefore, claim 1 gives an unequivocal teaching to the skilled person, and meets the requirements of Article 84 EPC.

4. *Inventive step*

4.1 D1, which is considered to represent the closest state of the art, discloses a component for an instrument for determining the female fertile period by measuring the viscoelasticity of saliva, said component comprising a stratum composed of a rigid material, a surface of said stratum having a random distribution of peaks and valleys (roughness, see claim 5).

4.2 Starting from D1, the object underlying the patent application in suit may be regarded as to provide a sufficiently small surface for the saliva sample (in order to ease the operations by keeping small the dimensions of the instrument), but still such that the adhesion of the saliva to the surface is higher than its cohesion (i.e. the saliva sample separates under traction before separating from the support surface) (see description, page 3, line 15, to page 4, line 13).

4.3 This object is achieved by the provision of a stratum surface, wherein the average depth of the valleys as

measured from the plane defined by the top of the peaks is in the range of 10 picometers to 100 micrometers and the total area of the walls of said valleys below one half of said average depth being from 35% to 65% of the total area of said stratum surface.

- 4.4 The provision of such a surface is not suggested by the available state of the art. D1 discloses a roughness of the surface in the order of 10 to 20 thousandths of an inch corresponding to 250 to 500 micrometers (see column 3, lines 12 to 27). With respect to these values it is obvious that the average depth of the valleys according to claim 1 of the application is clearly below the corresponding depth of the valleys described in D1, and that the stratum surface defined in claim 1 is neither known from nor suggested by D1.

The further documents of the available state of the art do not disclose the claimed range of values either.

- 4.5 Accordingly, the subject-matter of claim 1 involves an inventive step.

## **Order**

### **For these reasons it is decided that:**

1. The decision under appeal is set aside.
2. The case is remitted to the first instance with the order to grant a patent on the basis of the following version:

Claims:

1 to 7 filed with letter of 2 February 2005,

Description:

pages 1, 2, 8 to 22, 24 to 26 as originally filed,  
pages 3, 6 filed with letter of 12 March 2002,  
pages 4, 5 filed with letter of 2 February 2005,  
pages 7, 23 filed with letter of 15 November 2004,

Drawings:

Figures 1 to 28 as originally filed.

The Registrar:

The Chairman:

V. Commare

T. Kriner