

⑫

**EUROPEAN PATENT APPLICATION**

⑳ Application number: **78100638.2**

㉔ Date of filing: **10.08.78**

㉑ Int. Cl.<sup>2</sup>: **H 01 M 6/18, H 01 M 10/36,**  
**H 01 G 4/06, G 01 J 5/00,**  
**C 03 C 3/30**

㉓ Priority: **15.08.77 US 824419**

㉒ Date of publication of application: **21.02.79**  
**Bulletin 79/4**

㉔ Designated Contracting States: **BE DE FR GB NL SE**

㉒ Date of deferred publication of search  
report: **07.03.79 Bulletin 79/5**

㉑ Applicant: **Western Electric Company, Incorporated,**  
**222 Broadway, New York N.Y. 10038 (US)**

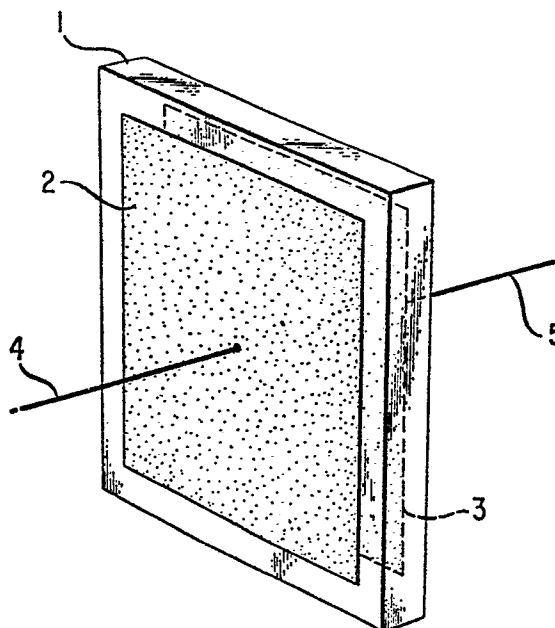
㉒ Inventor: **Glass, Alastair Malcolm, 162 Northfield Road,**  
**Millington New Jersey 07946 (US)**  
Inventor: **Lines, Malcolm Ellis, 10 East Rayburn Road,**  
**Millington New Jersey 07946 (US)**  
Inventor: **Nassau, Kurt, 170 Round Top Road,**  
**Bernardsville New Jersey 07924 (US)**

㉒ Representative: **Blumbach, Paul-Günter, Dipl.-Ing. et al,**  
**Blumbach.Weser.Bergen.Kramer**  
**Zwirner.Hirsch.Brehm Patentanwälte**  
**Radeckestrasse 43, D-8000 München 60 (DE)**

㉒ **Electrical devices including electrode-bearing amorphous solid material.**

㉒ Amorphous niobates and tantalates of the alkali metals lithium, potassium, and sodium which may be offstoichiometric with regard to the related octahedrally coordinated crystalline compositions manifest high values of dielectric constant and ionic conductivity.

Electrical devices, such as capacitors, electrolytic cells and bolometers, using said solid amorphous material contain a thin amorphous layer (1) and electrodes (2, 3) applied on both sides of said layer.





| DOCUMENTS CONSIDERED TO BE RELEVANT                                                                   |                                                                                                                                                                                                                                                                                                                                                                                               |                                  | CLASSIFICATION OF THE APPLICATION (Int. Cl. <sup>2</sup> )                                                                                                                                                                                                                                                                  |
|-------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Category                                                                                              | Citation of document with indication, where appropriate, of relevant passages                                                                                                                                                                                                                                                                                                                 | Relevant to claim                |                                                                                                                                                                                                                                                                                                                             |
| P                                                                                                     | <p>APPLIED PHYSICS LETTERS, vol. 31, nr. 4, 15 August 1977, American Institute of Physics, A.M. GLASS, M.E. LINES, K. NASSAU, J.W. SHIEVER "Anomalous dielectric behaviour and reversible pyroelectricity in roller-quenched Lithium niobate and lithium tantalate glass", pages 249-251</p> <p>* Abstract, page 250; page 251, right-hand column *</p> <p style="text-align: center;">--</p> | 1,5,6                            | <p>H 01 M 6/18<br/>H 01 M 10/36<br/>H 01 G 4/06<br/>G 01 J 5/00<br/>C 03 C 3/30</p>                                                                                                                                                                                                                                         |
| A                                                                                                     | <p>US - A - 3 195 030 (A. HERZOG, P. POST AND S.D. STOOKEY)</p> <p>* Claims 12,19,24; column 4, lines 24-32; column 14, lines 19-20; table VI *</p> <p style="text-align: center;">--</p>                                                                                                                                                                                                     |                                  | <p>TECHNICAL FIELDS SEARCHED (Int.Cl.<sup>2</sup>)</p> <p>H 01 M 10/39<br/>H 01 M 6/18<br/>H 01 M 10/36<br/>H 01 M 6/20<br/>H 01 G 4/06<br/>H 01 G 4/10<br/>H 01 G 4/12<br/>C 03 C 3/30</p>                                                                                                                                 |
| A                                                                                                     | <p>JOURNAL OF ELECTROCHEMICAL SOCIETY, vol. 123, nr. 5, May 1976, J. SINGER, W.L. FIELDER, H.E. KAUTZ AND J.S. FORDYCE "New solid conductors of Na<sup>+</sup> and K<sup>+</sup> ions", pages 614-617</p> <p>* Abstract *</p> <p style="text-align: center;">-----</p>                                                                                                                        |                                  | <p>CATEGORY OF CITED DOCUMENTS</p> <p>X: particularly relevant<br/>A: technological background<br/>O: non-written disclosure<br/>P: intermediate document<br/>T: theory or principle underlying the invention<br/>E: conflicting application<br/>D: document cited in the application<br/>L: citation for other reasons</p> |
| <p><input checked="" type="checkbox"/> The present search report has been drawn up for all claims</p> |                                                                                                                                                                                                                                                                                                                                                                                               |                                  | <p>&amp;: member of the same patent family, corresponding document</p>                                                                                                                                                                                                                                                      |
| Place of search                                                                                       |                                                                                                                                                                                                                                                                                                                                                                                               | Date of completion of the search | Examiner                                                                                                                                                                                                                                                                                                                    |
| The Hague                                                                                             |                                                                                                                                                                                                                                                                                                                                                                                               | 16-11-1978                       | D'HONDT                                                                                                                                                                                                                                                                                                                     |