

Title (en)

Improvements in or relating to piezoelectric materials and to methods for producing such materials.

Title (de)

Verbesserte piezoelektrische Materialien und Verfahren zu deren Herstellung.

Title (fr)

Perfectionnements concernant les matériaux piézoélectriques et procédés de fabrication de ces matériaux.

Publication

EP 0000449 A1 19790124 (EN)

Application

EP 78300160 A 19780718

Priority

GB 3023777 A 19770719

Abstract (en)

The piezoelectric properties of a polymeric material, for example polyvinylidene may be enhanced by "poling", which usually involves the application to the material, whilst at an elevated temperature, of a high voltage electric field. The enhancement is however limited by the temperature and electric field that the material can tolerate. Further enhancement is obtained by exposing the material (1) to a quantity of gamma radiation (4) of between 1 and 200 Mrads before <<poling>>; best results are obtained at an exposure level of between 1 and 100 Mrads. The treated material is suitable for use in microphone transmitters, receivers and pressure transducers.

IPC 1-7

H01L 41/22

IPC 8 full level

H10N 30/857 (2023.01); **H01B 3/44** (2006.01); **H01G 7/02** (2006.01); **H10N 30/098** (2023.01)

CPC (source: EP US)

H10N 30/098 (2023.02 - EP US); **Y10S 522/912** (2013.01 - EP)

Citation (search report)

- [A] FR 2108561 A5 19720519 - KUREHA CHEMICAL IND CO LTD
- [A] FR 2031247 A5 19701113 - WESTERN ELECTRIC CO
- [A] CHEMICAL ABSTRACTS, vol. 83, no. 6, 11 augustus 1975, Columbus, Ohio (USA) HASEGAWA YO et al.: "Vacuum treatment of electrets to stabilize their surface change", page 590, 1st column, abstract no. 52017U.

Cited by

EP0067270A3; DE10104605A1; US4808352A; EP0107993A3; FR2535113A1; WO8702055A1

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