



- (51) International Patent Classification:
H01F 41/32 (2006.01) *H01P 1/19* (2006.01)
- (21) International Application Number:
PCT/EP2014/071079
- (22) International Filing Date:
1 October 2014 (01.10.2014)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data:
13187538.7 7 October 2013 (07.10.2013) EP
- (71) Applicant: **KONINKLIJKE PHILIPS N.V.** [NL/NL];
High Tech Campus 5, NL-5656 AE Eindhoven (NL).
- (72) Inventor: **MILLS, John Brean**; High Tech Campus 5,
NL-5656 AE Eindhoven (NL).
- (74) Agents: **COOPS, Peter** et al.; Philips IP&S, P.O. Box
220, NL-5600 AE Eindhoven (NL).
- (81) Designated States (*unless otherwise indicated, for every
kind of national protection available*): AE, AG, AL, AM,
AO, AT, AU, AZ, BA, BB, BG, BH, BN, BR, BW, BY,
BZ, CA, CH, CL, CN, CO, CR, CU, CZ, DE, DK, DM,

DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT,
HN, HR, HU, ID, IL, IN, IR, IS, JP, KE, KG, KN, KP, KR,
KZ, LA, LC, LK, LR, LS, LU, LY, MA, MD, ME, MG,
MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM,
PA, PE, PG, PH, PL, PT, QA, RO, RS, RU, RW, SA, SC,
SD, SE, SG, SK, SL, SM, ST, SV, SY, TH, TJ, TM, TN,
TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW.

- (84) Designated States (*unless otherwise indicated, for every
kind of regional protection available*): ARIPO (BW, GH,
GM, KE, LR, LS, MW, MZ, NA, RW, SD, SL, ST, SZ,
TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, RU,
TJ, TM), European (AL, AT, BE, BG, CH, CY, CZ, DE,
DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU,
LV, MC, MK, MT, NL, NO, PL, PT, RO, RS, SE, SI, SK,
SM, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ,
GW, KM, ML, MR, NE, SN, TD, TG).

Declarations under Rule 4.17:

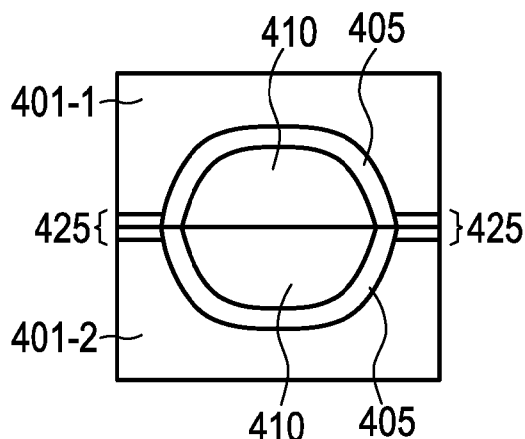
- *as to applicant's entitlement to apply for and be granted a
patent (Rule 4.17(ii))*

Published:

- *with international search report (Art. 21(3))*

- (54) Title: PRECISION BATCH PRODUCTION METHOD FOR MANUFACTURING FERRITE RODS

FIG. 5F



(57) Abstract: The present invention relates to a method of manufacturing a ferrite rod. The method comprises etching cavities into two semiconductor substrates and depositing ferrite layers into the cavities. The semiconductor substrates are attached to each other such that the ferrite layers form a ferrite rod. The present invention employs conventional photolithography and bulk isotropic micromachining of semiconductor wafers to precisely and repeatably form a template or mould, into which magnetic material can be deposited to form a Faraday rotation or phase-shifting element.